

ANNUAL REPORT 2017–2018



Indian Institute of Technology Guwahati

Guwahati 781039 INDIA

Indian Institute of Technology Guwahati

Indian Institute of Technology Guwahati is the sixth member of the IIT family. Indian Institute of Technology–Assam Society was formed in February 1989. The foundation stone of IIT Guwahati was laid in July 1992 in Guwahati. The Institute of Technology (Amendment) Act 1994, passed by the Parliament, was notified in the Gazette of India on May 26, 1994, by which the IIT Guwahati–Assam Society was made into IIT Guwahati. By the Gazette of India notification of the Ministry of Human Resource Development dated September 1, 1994, the Central Government declared September 1, 1994, as the date on which the Institute of Technology (Amendment) Act 1994 (No. 35 of 1994) came into force and IIT Guwahati was established. Enrollment of students started in 1995.

Annual Report 2017–2018: Highlights

Growth			
Particulars	2016-2017	2017-2018	Growth in %
Student Strength	5770	5817	0.81
Faculty Strength	411	422	2.68
R&D Funds Received (In crores of ₹)	81.87	87.52	6.90
Total Research Publication	1779	1988	11.74
Major R&D Projects Received:			
<ul style="list-style-type: none"> ○ Establishment of Research Parks under the 'Start-up India Initiative in Higher Educational Institutions (SIIHEI)'; IITG; MHRD; ₹ 7500 lakh ○ Programme support for research in Biological Sciences and Healthcare Engineering in North East Region; R&D; DBT; ₹ 3735.28 lakh ○ FIST Phase II; Physics; DST; ₹ 440 lakh ○ Improvement of S&T Infrastructure in Universities and Higher Educational Institutes (FIST) Programme; Chemical Engineering; DST; ₹ 390 lakh ○ Design, Synthesis and Characterization of Metal Impregnating Nano-assemblies using Peptide Model Systems; Applications in heavy metal entrapment in North-East Region; BSBE; DBT; ₹ 154.90 lakh ○ Development of novel Akt/m TOR inhibitors for oral cancer prevention and treatment; BSBE; DBT; ₹ 149.37 lakh ○ Structural investigation of sugar ABC transporters in Mycobacterium tuberculosis and thermophiles; application to the development of drug carriers and biosensors; BSBE; DBT; ₹ 126.38 lakh 			
Major Conference Held:			
<ul style="list-style-type: none"> ○ Indo-Japan Workshop on Hope from Herbs: Research based Care and Cure Potentials– 8 - 9 May 2017 ○ International Conference on Sophisticated Instruments and Modern Research (ICSIMR), 2017 – 30 June - 1 July 2017 ○ International Conference on Vibration Problems – 29 November - 2 December 2017 ○ Fifth International Conference on Complex Dynamical Systems and Applications (CDSA) 2017 – 4 - 6 December 2017 ○ Bioprocessing India 2017 –9 - 11 December 2017 ○ The Indian Geotechnical Conference – 14 - 16 December 2017 ○ 4th International Symposium in Advances in Sustainable Polymers ASP 17 – 8 - 11 January 2018 ○ Indo Canadian School on Algorithms and Combinations CALDAM 2018 – 12 - 17 February 2018 			

Annual Report 2017–2018: A Quick Look

Department/Centre	
Academic Department	11
Academic Centre	5
Service Centre	5

Grants (₹ in crores)		
MHRD	Revenue: 243.00	Capital: 220.00
Total	₹ 463.00 crores	

Students Admitted	
Preparatory	
BTech/BDes	681
MTech/MDes	436
MSc/MA	171
PhD	359
MS (R)	14
Dual Degree	2
Total	1663

Students Strength	
Preparatory	4
BTech/BDes	2626
MTech/MDes	845
MSc/MA	345
PhD	1934
MS (R)	32
DUAL Degree	31
Total	5817

Number of Degrees Awarded 19 th Convocation (23 June 2017)	
BTech/BDes	619
MTech/MDes	390
MSc	119
MA	20
PhD	155
Total	1303

Faculty/Staff Strength	
Faculty	423
Scientific Staff (Group A)	53
Officers (Group A)	38
Support Staff (Group B & C)	408
Total	922

Research Papers	
Journal Papers	1323
Conference Papers	665
Total	1988

Consultancy Projects	
New Projects	98
Outlay (₹ in crore)	0.24

Sponsored Research Projects	
New Projects	93
Outlay (₹ in crore)	148.32

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PART I

Organisation

IIT Council

Board of Governors

Senate

Finance Committee

Building and Works Committee

Executive Summary



Organisation

Chairman, Council of IITs

Shri Prakash Javadekar

Hon'ble Minister of Human Resource Development
Govt. of India, Shastri Bhawan, New Delhi

Chairman, Board of Governors

Dr. Rajiv I. Modi

Chairman & Managing Director
Cadila Pharmaceuticals Limited
Cadila Corporation Campus
Sarkhej-Dholka Road, Bhat
Ahmedabad 382 210, Gujarat

Director

Prof. Gautam Biswas

Deputy Director

Prof. P. K. Bora

Dean, Academic Affairs

Prof. M. G. P. Prasad

Dean, Faculty Affairs

Prof. A. Srinivasan

Dean, Research and Development

Prof. Gopal Das

Dean, Students' Affairs

Prof. S.N. Bora

Dean, Infrastructure, Planning and Management

Prof. S. K. Kakoty

Dean, Alumni and External Relations

Prof. R. M. Punekar

Dean, Outreach Education Programme

Prof. S. Basu

Associate Dean, Academic Affairs

Prof. S. Senthilvelan

Dr. K.V. Krishna

Associate Dean, Faculty Affairs

Prof. S. Natesan

Associate Dean, Research and Development

Prof. G. Krishnamoorthy

Prof. Sreedeeep S.

Associate Dean, Students' Affairs

Prof. Hemangee K. Kapoor

Dr. Mallikarjuna C.

Associate Dean, Infrastructure, Planning and Management

Prof. Sharad Gokhale

Associate Dean, Alumni Affairs and External Relations

Prof. R. Chaturvedi

Registrar

Mr. U. C. Das

Head, Department of Biosciences and Bioengineering

Prof. K. Pakshirajan

Head, Department of Chemical Engineering

Prof. B. Mandal

Head, Department of Chemistry

Prof. T. Punniyamurthy

Head, Department of Civil Engineering

Prof. Chandan Mahanta

Head, Department of Computer Science and Engineering

Prof. S.V. Rao

Head, Department of Design

Dr. D. Udaya Kumar

Head, Department of Electronics and Electrical Engineering

Prof. Rohit Sinha

Head, Department of Humanities and Social Sciences

Prof. M.K. Dutta

Head, Department of Mathematics
Prof. N. Selvaraju

Head, Department of Mechanical Engineering
Prof. S.K. Dwivedy

Head, Department of Physics
Prof. S. Ghosh

Head, Centre for Energy
Prof. V.S. Moholkar

Head, Centre for the Environment
Prof. Mihir K. Purkait

Head, Centre for Nanotechnology
Dr. D. Bandyopadhyay

Head, Central Instruments Facility
Prof. Mohd. Qureshi

Head, Centre for Educational Technology
Prof. S. K. Khijwania

Head, Computer & Communication Centre
Prof. Kalpesh Kapoor

Head, Centre for Linguistic Science and Technology
Prof. S. Nandi

Head, Centre for Career Development
Prof. K. Rakesh Singh

Head, Centre for Rural Technology
Prof. S. K. Kakoty

Head, Centre for Creativity
Dr. Manoj Majhi

Head, Centre for Sports and Healthcare Engineering
Prof. S. Dandapat

Librarian, Lakshminath Bezbaroa Central Library
Dr. T. Guha

IIT Council

Minister in charge of Technical Education in the Central Government (Ex-Officio)	Chairman
Chairman of Board of Governors of all Indian Institutes of Technology (Ex-Officio)	Member
Director of all Indian Institutes of Technology (Ex-Officio)	Member
Chairman, University Grants Commission (Ex-Officio)	Member
Director General, Council of Scientific and Industrial Research (Ex-Officio)	Member
Chairman, Indian Institute of Science, Bangalore (Ex-Officio)	Member
Director, Indian Institute of Science (Ex-Officio)	Member
Three nominees of the Central Government	
To represent the Ministry concerned with Technical Education	Member
To represent the Ministry of Finance	Member
To represent any other Ministry	Member
Nominee of the All India Council for Technical Education (AICTE)	Member
Nominees of the Visitor (minimum 3 and maximum 5)	Member
Three Members of Parliament (two from Lok Sabha and one from Rajya Sabha)	Member
Secretary to the Council	Secretary

Board of Governors

Chairman

Dr. Rajiv I. Modi

Chairman & Managing Director
Cadila Pharmaceuticals Limited
Cadila Corporation Campus
Sarkhej-Dholka Road, Bhat
Ahmedabad 382 210, Gujarat

Member (Ex-Officio)

Prof. Gautam Biswas

Director
IIT Guwahati

Member-Nominees of the IIT Council

Dr. Chitra Dutta

Head, Structural Biology and Informatics Division
CSIR - Indian Institute of Chemical Biology
Kolkata 700 032

Prof. M. K. Chaudhuri

Vice-Chancellor
Tezpur University
Napaam, Tezpur 784 028

Mr. Pydah Venkatanarayana

Member, Pydah Educational Academy
3-16B-115, Santhi Nagar
Kakinada 533 003

Dr. D. B. Goel

Former Professor, IIT Roorkee
268/5, 16 Civil Lines
Roorkee 247 667

Member-Nominee of the Govt. of Assam

Commissioner and Secretary to the Govt. of Assam
Higher Education (Technical) Department
Dispur, Guwahati 781 006

Member-Nominee from North Eastern Region

Er. Vikeduosie Kehie

Retired Engineer-in-Chief (NPWD)
House No.174, Kohima Science College Road
JOTSOMA, Kohima, Nagaland

Member-Nominees of the Senate

Prof. C. Mahanta (up to 31.12.2017)

Professor
Department of Electronics and Electrical Engineering
IIT Guwahati

Prof. Anoop Kr. Dass

Professor
Department of Mechanical Engineering
IIT Guwahati

Prof. Bhaba Kr. Sarma (from 01.01.2018)

Professor
Department of Mathematics
IIT Guwahati

Secretary (Ex-Officio)

Mr. U. C. Das

Registrar
IIT Guwahati

Senate

Composition of the Senate

- | | |
|--|-------------------------|
| 1. The Director | Chairman (Ex-Officio) |
| 2. The Deputy Director | Member (Ex-Officio) |
| 3. All Professors of the Institute | Members (Ex-Officio) |
| 4. Three persons, not being employees of the Institute, to be nominated by the Chairman, BOG in consultation with the Director, from among educationists of repute, one each from the fields of science, engineering and humanities | Board Nominated Members |
| <p>Prof. H. K. Das
 Pro. Vice Chancellor, Assam Down Town University
 House No. 1, 2nd Bye Lane
 Baranchal Road, Bamunimaidam
 Guwahati 781 021</p> <p>Prof. Anil Kumar Goswami
 137, U. N. Bezbarooah Road
 Silpukhuri, Guwahati 781 003</p> <p>Prof. Birendranath Datta
 Chandrabala Barooah Lane
 104, G.N.B. Road, Silpukhuri
 (near SBI Evening Branch)
 Guwahati 781 003</p> | |
| 5. Head of the Academic Departments and Academic Centres | Members (Ex-Officio) |
| 6. Librarian of the Institute | Member (Ex-Officio) |
| 7. Chairman, Hostel Affairs Board | Member |
| 8. Registrar of the Institute | Secretary (Ex-Officio) |

Finance Committee

Dr. Rajiv I. Modi

Chairman & Managing Director
Cadila Pharmaceuticals Limited
Cadila Corporation Campus,
Sarkhej-Dholka Road, Bhat,
Ahmedabad 382 210

Chairman (Ex-Officio)

Prof. Gautam Biswas

Director
IIT Guwahati

Member (Ex-Officio)

Director (IITs)

Department of Higher Education
Ministry of Human Resource Development, Govt. of India
Shastri Bhavan, New Delhi 110 115

Member

Director (Finance)

Integrated Finance Division, Department of Higher Education
Ministry of Human Resource Development, Govt. of India
Shastri Bhavan, New Delhi 110 115

Member

Prof. Gautam Barua

Director, IIIT Guwahati
Ambari, GNB Road, Guwahati-781001

Member

Mr. Mukesh M. Shah

Chartered Accountant and
Founder and Managing Partner, Mukesh M. Shah & Co.
7th Floor, Heritage Chambers
Nehru Nagar, Ahmedabad 380 015

Member

Mr. U. C. Das

Registrar
IIT Guwahati

Secretary (Ex-Officio)

Building and Works Committee

Prof. Gautam Biswas

Director
IIT Guwahati

Chairman (Ex-Officio)

Superintending Engineer (CPWD), Assam

Assam Central Circle-II, CPWD Complex
Garchuk, Guwahati 781 035

Member (Ex-Officio)

Chief Engineer (Buildings), PWD, Assam

PWD, Govt. of Assam
Chandmari, Guwahati 781 003

Member (Ex-Officio)

Prof. D.N. Buragohain

Professor Emeritus, IIT Guwahati

Member

Shri Mrinal R. Das

Former Secretary, PWD, Govt. of Assam

Member

Prof. P. S. Robi

Deputy Director and Professor,
Department of Mechanical Engineering, IIT Guwahati

Member (Ex-Officio)

Prof. S. K. Kakoty

Dean, Infrastructure, Planning and Management and
Professor, Department of Mechanical Engineering, IIT Guwahati

Member (Ex-Officio)

Prof. Sharad Gokhale

Associate Dean, Infrastructure, Planning and Management and
Professor, Department of Civil Engineering, IIT Guwahati

Special Invitee

Mr. U. C. Das

Registrar, IIT Guwahati

Member Secretary (Ex-Officio)

Executive Summary



INTRODUCTION

The year 2017 saw the IIT Guwahati's nineteenth batch of students taking their degrees in the month of June. The Institute takes pride in the achievements of its students and gladly announces that almost all the passed out students have been well placed in various government organisations and multi-national companies in India and abroad. All the achievements in academic and research areas have been successful only because of the relentless efforts of dedicated faculty members and the commendable cooperation of all other non-teaching employees of the Institute.

Here is a brief report on the activities and achievements of the Institute during the year 2017-18.

THE BOARD OF GOVERNORS

Prof. Bhaba Kr. Sarma, Professor, Department of Mathematics, IIT Guwahati joined the Board in January 2018 as a nominee of the Senate. Prof. C. Mahanta, Professor, Department of Electronics & Electrical Engineering, has completed her tenure as the nominee of the Senate in December 2017. On behalf of the Board, I welcome Prof. Sarma to the Board and thank Prof. Mahanta for her valuable contributions.

ACADEMIC ACTIVITIES

The Institute has 11 academic departments, 5 inter-disciplinary academic centres and 5 extramural centres.

The Department and Centres are –

Departments

Biosciences and Bioengineering (BSBE), Chemical Engineering (CL), Chemistry (CH), Civil Engineering (CE), Computer Science and Engineering (CSE), Design (DD), Electronics and Electrical Engineering (EEE), Humanities and Social Sciences (HSS), Mathematics (MA), Mechanical Engineering (ME) and Physics (PH).

Academic Centres

Centre for Energy, Centre for the Environment, Centre for Nanotechnology, Centre for Rural Technology and Centre for Linguistic Science and Technology.

Extramural Centres

Computer and Communication Centre, Central Instruments facility, Centre for Educational Technology, Centre for Career Development and Centre for Creativity.

The Institute offers academic programmes covering a wide range of science, engineering and humanities disciplines as given below:

Bachelor of Technology (BTech) Programmes in Biotechnology (BT), Chemical Engineering (CL), Chemical Science and Technology (CT), Civil Engineering (CE), Computer Science and Engineering (CS), Electronics and Communication Engineering (EC), Electronics and Electrical Engineering (EE), Engineering Physics (EP), Mathematics and Computing (MC), and Mechanical Engineering (ME);

Bachelor of Design (BDes) programme in Design (DD);

Master of Technology (MTech) programmes in BT, CL, CE, CS, EE, ME, RT;

Master of Design (MDes) programme in Design;

Master of Science by Research [MS(R)] programme in Energy (EN)

Master of Science (MSc) programmes in Chemistry (CH), Mathematics and Computing (MC), and Physics (PH);

Master of Arts (MA) programme in Development Studies (DS) in the Department of Humanities and Social Sciences (HS);

Doctor of Philosophy (PhD) programmes in all the Departments and in the Centre for Energy (EN), Centre for the Environment (EV), Centre for Nanotechnology (NT), Centre for Rural Technology (RT) and Centre for Linguistic Science and Technology (CLST);

Dual (MTech + PhD) programme in the Department of Computer Science and Engineering (CS); and

Dual [MS (Eng.) + PhD] programme in Electronics and Electrical Engineering (EE)

The total number of enrolled students in 2017-18 is 5817. Of these, 54.79% are postgraduate students.

The detailed break up is –

Course	2016-17	2017-18
Preparatory	10	4
BTech and BDes	2610	2626
MTech and MDes	844	845
MSc	274	285
MA	49	60
MS	24	32
Dual Degree (MTech+PhD)	32	31
PhD	1927	1934
Total	5770	5817

Nineteenth Convocation

In the Nineteenth Convocation held on 23 June 2017, a total number of 1308 students received their BTech, BDes, MA, MSc, MTech, MDes and PhD degrees as given below:

Programme	Nos.
BTech/BDes	
Biotechnology	43
Chemical Engineering	59
Chemical Science and Technology	45
Civil Engineering	63
Computer Science and Engineering	88
Design	36
Electronics and Communication Engineering	76
Electronics and Electrical Engineering	45
Engineering Physics	27
Mathematics and Computing	50



Bharat Ratna, Prof. C.N.R. Rao, FRS, National Research Professor, Linus Pauling Research Professor & Honorary President, Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru; Dr. Rajiv I. Modi, Chairman, BoG, IIT Guwahati, Chairman & Managing Director, Cadila Pharmaceuticals Limited; Prof. Gautam Biswas, Director, IIT Guwahati, along with the gold and silver medal winners at the 19th Convocation



Prof. C.N.R. Rao presenting the President of India Gold Medal to Venkat Arun at the 19th Convocation



Dr. Rajiv I. Modi presenting the Dr. Shankar Dayal Sharma Gold Medal to Rajat Lohia at the 19th Convocation

Programme	Nos.
Mechanical Engineering	87
Total	619
MSc	
Chemistry	39
Mathematics and Computing	41
Physics	39
Total	119
MA	
Development Studies	20
Total	20
MTech/MDes	
Biotechnology	28
Chemical Engineering	47
Civil Engineering	96
Computer Science and Engineering	62
Design	27
Electronics and Electrical Engineering	45
Mechanical Engineering	85
Total	390
MS(R)	
Centre for Energy	5
Total	5
PhD	
Biosciences and Bioengineering	21
Chemical Engineering	9
Chemistry	36
Civil Engineering	12

Programme	Nos.
Computer Science and Engineering	4
Design	1
Electronics and Electrical Engineering	20
Physics	11
Mathematics and Computing	10
Mechanical Engineering	13
Centre for Energy	3
Centre for the Environment	1
Centre for Nanotechnology	1
Total	155

'QS' RANKING AND 'THE' RANKING

QS Top 50 Under 50 Ranking 2019	61-70 (Last year 71-80)
QS World University Ranking 2019	472 (Last year 501-550)
THE Ranking 2018	World-#601-800 Asia-# 112 Emerging Economies-#114

SWACHHATA RANKING

IIT Guwahati is the fifth cleanest government educational institution in the country and the only IIT as well as the only institute of eastern India to be featured in the first Swachhata ranking launched in the year 2017 by the GoI.

ISHAN VIKAS

The Ishan Vikas Programme started in 2014, funded by the MHRD with a vision to improving the scenario of school and college education in the North-Eastern part of the country, Ishan Vikas has achieved, albeit partially, the goals and objectives of the initiative. A large number of school children



Shri Prakash Javadekar, Hon'ble Minister of Human Resource Development, Govt. of India, handing over the Swachhta Ranking Award 2017 to IIT Guwahati. Prof. P. S. Robi, Deputy Director and Prof. P. K. Iyer

and engineering college students from various places of the North- Eastern states are provided with the opportunity of visiting the IITs, IISERs, NITs and the NIAS, getting trained by skilled faculty members and technical staff, being exposed to state-of-the-art research facilities and interacting with them.

About 1750 school students and 400 students from various engineering colleges in the North East participated in the programme. Almost all the IITs, IISERs and NIAS have acted as host institutes for the participants and the participating students have greatly benefited from the exposure that they received from such premier institutions in engineering, technology and the pure sciences.

No. of participants during the financial year 2017-18:

- Engineering students (summer, 2017) - 139 nos.
- School students (winter, 2017) - 106 nos.

MHRD-NIRF India Rankings 2018

A major achievement for the Institute came through the announcement of the MHRD's National Institutional Ranking Framework (NIRF), India Rankings 2018 in which IIT Guwahati ranked seventh among top engineering institutions



Participants during the Ishan Vikas Programme during 2017-18

and twelfth among all the participating universities and institutions in the country. The credit for this success goes entirely to the faculty members, students, research scholars as well as the officers and staff members and well-wishers of the Institute. The Institute shall tirelessly strive to achieve a higher rank in the coming days.

NATIONAL PROJECTS

The project Start-up India Initiative in Higher Educational Institutions (SIIHEI) is a joint initiative of the DST & MHRD for promoting the establishment of Research Parks/Technology Business Incubators /Startup Centers. IIT Guwahati is one of the 6 Institutions to establish a Research Park with a sanctioned amount of 75 crores under this scheme.

Global Initiative of Academic Networks (GIAN), an initiative of the Govt. of India for Higher Education, was started in 2016. The major aims of GIAN are to tap the international pool of talented scientists/entrepreneurs with an objective to encourage their engagement with the institutes of Higher Education in India. The initiative aims to augment the country's existing academic resources, accelerate the pace of quality reforms, and elevate India's scientific and technological capacity to global excellence. In the reporting year, 12 such courses were conducted by erudite scholars from international universities/institutions at the Institute.

The Institute is also engaged in creating e-course contents for the MHRD flagship programme Central Sector Scheme-Massive Open Online Courses (CSS-MOOCs) where 18 courses were delivered through the NPTEL online portal under the reporting year.

The Institute organised teacher training programmes under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMNMTT) – an MHRD, Govt. of India Initiative – for in-service teachers of Assam and other states of India in three phases, in which total of 1278 teachers received training.

ACADEMIC INFRASTRUCTURE DEVELOPMENT

In order to further strengthen the research related infrastructure, a few of the machineries purchased for Central Instrument Facility are:

Atomic Force Microscope(make: Oxford Instruments, model: Cypher S):

It is the first commercially available fast-scanning AFM and is compatible with a complete range of modes and accessories. The AFM has also earned a reputation for easily achieving higher resolution than other AFMs. The Cypher S is a great AFM for both materials science and life science



Shri Prakash Javadekar, Hon'ble Minister of Human Resource Development, is handing over the certificates and plaque of the NIRF-India Rankings 2018 to IIT Guwahati at Vigyan Bhawan, New Delhi.



Dr. Satya Pal Singh, Hon'ble Minister of State, Ministry of Human Resources Development (Higher Education) visited IIT Guwahati on 22nd January, 2018 and presided over the Review Meeting of the Higher Educational Institutes of the North East under MHRD and Heads from 27 Institutions of North East attended the Meeting.

research for ambient measurements in both air and liquids. It is fully upgradable later for environmental control options or even video-rate scanning. The cost of the machine is approximately ₹2.5 crores.

9KW Powder X-Ray Diffraction System (make: Rigaku Technologies, JAPAN, model: Smartlab):



This new X-ray diffraction system features the PhotonMax high-flux 9 kW rotating anode X-ray source coupled with a HyPix-3000 high-energy-resolution 2D multidimensional semiconductor detector that supports 0D, 1D and 2D measurement modes, allowing all applications to be handled with a single detector, eliminating the inconvenience of preparing and switching individual detectors for different applications. The HyPix-3000 detector can be used to obtain 2D powder diffraction patterns, which can be processed to deliver superior qualitative analysis by using all the 2D pattern information. The cost of the machine is approximately ₹80 lakh.

A number of new equipment have been added to the laboratories of the Departments and Centres. Some of the major equipment and facilities acquired by the Institute during the year under report are –

➤ AC/DC and related charectization	₹117 lakh
➤ Cryogen Free Basis PPMS with Vibrating Sample Magnetometer and its accessories	₹338 lakh
➤ High Speed Laser Source	₹140 lakh
➤ HPTGA	₹111 lakh
➤ Laser Micromachining System	₹221 lakh
➤ RF AND Related Characterization	₹134 lakh
➤ Double Sided Mask Aligner	₹168 lakh
➤ 2TPD FEEDSTOCK	₹163 lakh

Lakshminath Bezbaroa Central Library being a major service centre of the Institute provides library and information services to support teaching, learning, research activities by creating state-of-the-art facilities and offering innovative services. The library has a fast growing collection of books, journals, magazines both in print and digital format.



The Library has a collection of about 1.69 lakhs of printed books and bound volumes of journals, 1.8 lakhs of e-books, and 68 print and 25000 online journals along with a substantial number of other documents. During the reporting year, the Library has subscribed to some of the world's most renowned abstract/full-text database like Scopus, INSPEC, EBSCO Discovery Service, IEC Standards, ACSESS archive, IMF eLibrary, eHRAF etc. and some national level database i.e. CMIE Prowees, BIS Standards, EPWRF Time Series, etc.

For better accessibility of contents, efforts have been made to increase online journal collection over printed journals. Presently Library is subscribing 15,848 titles across all academic areas of which 15,780 are online journals. In addition to that, Institute is having access to 7,212 online journals through 'e-Shodh Sindhu Consortium' and 'DeLCON: DBT- Electronic Library Consortium'.

Library has also subscribed Turnitin, a Plagiarism-detection Software, during the reporting period. Library has also developed a reasonably good collection on Assamese language and on the literary works of Sahityarthi Lakshminath Bezbaroa.

The Computer and Communication Centre has augmented its facilities to provide better service in connectivity. The Centre also acts as a nodal centre for various network related activities of the North-Eastern states. Projects of the National Knowledge Network and the ERNET are being actively pursued in the Centre.

RESEARCH AND DEVELOPMENT

The total number of PhD students on campus has grown marginally from 1927 last year to 1934 this year. The current faculty to PhD students' ratio is 4.58. The number of graduating PhD students has also increased to 232 from 155 in the previous year.

The other component of our research programme is

sponsored (or directed) research. There are 354 research projects in progress with a total sanctioned value of about ₹322.7 crore. In the year under report we received 93 new projects with a sanctioned value of ₹148 crore. The R&D projects are mainly sponsored by Government Ministries and Departments with major support coming from Ministry of Human Resource Development (MHRD), Departments of Science and Technology (DST), Biotechnology (DBT), Science and Engineering Research Board (SERB), Board of

Research in Nuclear Sciences (BRNS), Defence Research and Development Organisation (DRDO). We also have a considerable number of industry supported research projects. 290 personnel are engaged in various research projects at the Institute with 350 Principal Investigators involved. During the reporting year ₹9.87 crores were spent under manpower head.

The Institute has applied for 41 patents in 2017-2018 Some of the major research projects received during the year are:

Project Title	Department/ Centre	Funding Agency	Amount (₹ in lakhs)
Establishment of Research Parks under the 'Start-up India Initiative in Higher Educational Institutions (SIIHEI)'	IITG	MHRD	7500
Programme support for research in Biological Sciences and Healthcare Engineering in North East Region	R&D	DBT	3735.28
FIST Phase II	Physics	DST	440.00
Improvement of S&T Infrastructure in Universities and Higher Educational Institutes (FIST) Programme	Chemical	DST	390.00
Design, Synthesis and Characterization of Metal Impregnating Nano-assemblies using Peptide Model Systems; Applications in heavy metal entrapment in North-East Region	BSBE	DBT	154.90
Development of novel Akt/m TOR inhibitors for oral cancer prevention and treatment	BSBE	DBT	149.37
Structural investigation of sugar ABC transporters in Mycobacterium tuberculosis and thermophiles: application to the development of drug carriers and biosensors	BSBE	DBT	126.38
Development of High Temperature Thermal Energy Storage System for Solar Thermal Power Plant	Mechanical	DST	115.46
Pilot scale studies on rotary drum composting and anaerobic biphased baffled reactor (ABBR) technology for biomethanation of industrial sludges and aquatic weeds	Civil	DST	103.68

Table-1

MHRD – Ministry of Human Resource Development;

DST – Department of Science and Technology, Govt. of India

DBT – Department of Biotechnology, Govt. of India

In addition to sponsored research projects, IIT Guwahati undertakes consultancy assignments for various State Government Departments, the Railways, the National Highways Authority of India, the Oil and Gas Sector, Construction and Infrastructure Companies, the Power Sector, Educational Institutes, Health and Pharmaceutical Industries and Financial Institutions. Consultancy projects make significant contributions to the industrial, economic and social growth of the country with special emphasis on this region.

A total of 98 new consultancy projects were carried out during the year. The total value of consultancy projects

undertaken during this year is ₹24.28 lacs and ₹8.9 crores was received for all consultancies.

IIT Guwahati has a Technology Incubation Centre (IITG-TIC) which facilitates new start-ups. Presently eleven incubating companies are working in the centre.

IIT Guwahati Research Park

IIT Guwahati is facilitating established companies to set up their R&D centre inside the Institute campus for industry-academia collaboration. At present the following companies got inducted at IITG Research Park:

- CADILA R&D Lab: Pharmaceuticals
- Kovid Lab: Big data analytics and Multimedia
- DESHYA Technologies: Teaching-Learning tools

FACULTY AND STAFF

The faculty strength at the end of March 2018 was 423. The number of non-teaching staff at the end of March 2018 was 499.

RESEARCH PUBLICATIONS

The faculty members of the Institute have been actively publishing research papers in international and national journals as well as in conference proceedings. The number of publications during the past one year is:

Papers in Journals: 1323

Papers in Conference Proceedings: 665

In the previous year 952 papers in journals and 827 papers in conference proceedings were published by the faculty of the Institute. The increase in research papers in journals is encouraging.

CONFERENCES/WORKSHOPS/SYMPOSIA

Various conferences, seminars and workshops were organised by the Departments and Centres of the Institute during the year. A few of them are—

- Indo-Japan Workshop on Hope from Herbs: Research-based Care and Cure Potentials - May 8-9, 2017
- International Conference on Sophisticated Instruments and Modern Research (ICSIMR), 2017 - 30 June - 1 July, 2017
- International Conference on Vibration Problems – 29 November – 2 December, 2017
- Fifth International Conference on Complex Dynamical Systems and Applications (CDSA) 2017 - 4 – 6 December, 2017
- Bioprocessing India 2017 - 9-11 December, 2017
- The Indian Geotechnical Conference – 14-16 December, 2017
- Fourth International Symposium in Advances in Sustainable Polymers ASP 17 - 8-11 January, 2018
- 21st ADNAT Convention and International Symposium of Biodiversity and Biobanking (Biodiverse-2018) – 27-31 January, 2018
- Indo-Japan Bilateral Symposium on Future Perspective of Bioresource Utilization in North-Eastern Region - 1-4 Feb, 2018
- Indo Canadian School on Algorithms and Combinations CALDAM 2018 – 12-17 February, 2018

The Institute has also organised 36 short term courses, workshops, and training programmes under the Technical Education Quality Improvement Programme (TEQIP), Electronics and ICT Academy and under Virtual Lab projects funded by the Govt. of India.

INTERNATIONAL COLLABORATIONS

Collaboration with Universities in UK: Good response from UK universities

IIT Guwahati's attempt to actively engage with top universities in UK has started showing results this year through confirmation of collaborations with Cardiff



Indo-Japan Symposium on "Hope from Herbs Research Based Care and Cure Potentials" and Inauguration of DBT AIST International Laboratory for Advanced Biomedicine (DAILAB) held during May 8-9, 2017

University, Bath University, Imperial College of London, York University and Nottingham University.

Collaboration with Universities in Europe

Joint Masters-PhD Programme with Heidelberg University and DBT: The above is a unique programme to be funded by DBT whereby 15 Master Students from 6 Premier Indian Institutions will be selected and sent to undertake their 4th semester of Masters Programme at the University of Heidelberg, Germany out of which 10 will be eventually selected for a Joint-PhD program in Big Data Analysis with the University. This year, 5 students of IIT Guwahati have been selected out of a total of 19 Indian Students to be part of the fully funded 4th semester Masters Programme.

Erasmus+ : Following the commencement of the Erasmus+ Project, IIT Guwahati has in the year 2017-18 entered into an Inter-Institutional agreement under Erasmus+ with the following Universities for faculty, student and staff:-

University of Pardubice: IIT Guwahati's Department of Electronics and Electrical Engineering entered into the



Hon'ble Chief Minister of Assam, Shri Sarbananda Sonowal receiving a cheque as a token contribution of IIT Guwahati towards Chief Minister's Relief Fund from Prof. Gautam Biswas, Director, IIT Guwahati and other senior officials of the Institute

Erasmus+ inter-institutional agreement with Pardubice University, Czech Republic focusing on faculty and students exchange as per the funding regulations of the Erasmus+ guidelines. A faculty member from the Department has already been invited for a Faculty Mobility at Pardubice University, under the above programme.

Ecole Central De Nantes, France: 4 students from IIT Guwahati have gone as exchange student to the Institute under Erasmus+ Programme

Art and Design University of Cluj-Napoca, Romania: Under the Erasmus+ Inter-institutional agreement, IIT Guwahati entered into a mobility program with Universitatea de Arta si Design in Cluj-napoca, Romania. A student from the University has been selected for her PHD internship programme in the Department of Design, IIT Guwahati.

Heritage Network: First General Assembly of Heritage Network – Indo- European Universities Network of Technical HEI institutions was held at IIT Madras in February 2018 where a workshop on the theme of 'Smart Cities' was organised to explore Joint Research possibilities.

Linnaeus-Palme Partnership: The Linnaeus-Palme International Exchange Programme between IIT Guwahati and Lund University has seen an active exchange of students and faculty. This year 2 students from IIT Guwahati went for their exchange semester at the University and 2 students from the University have come to the IIT Guwahati as semester exchange.

Collaboration with Indo-Taiwan University:

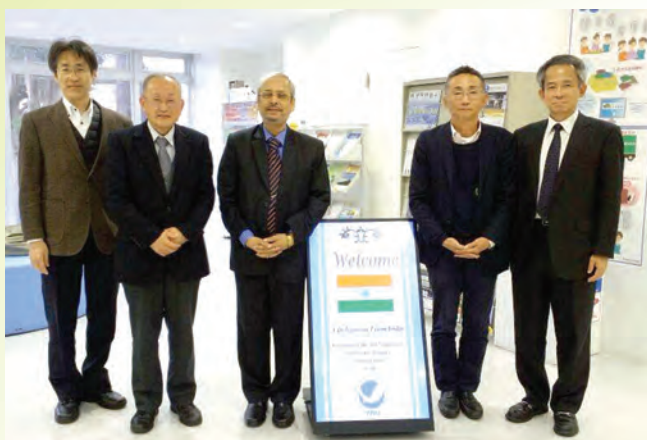


Prof. Gautam Biswas, Director and Prof. Jer-huang Jang, Ming Chi University during Indo-Taiwan bilateral meet.

Indo-Taiwan bilateral was held on the sidelines of the ASP Conference resulted in another major collaborative outreach for IIT Guwahati. IIT Guwahati will now partner Ming Chi University of Technology, Taiwan to explore joint research collaborations.

Collaboration with Universities in Japan:

IIT Guwahati is now one of the nine partners in the “Innovative Asia Programme” initiated by the Japan International Cooperation Agreement (JICA) through the Embassy of Japan in India. The programme aimed at fulltime study at Japan and targeting over 1000 students spread over 5 years duration.



IIT Guwahati has in the recent past been actively pursuing academic and research collaborations with top Universities in Japan such as Tokyo Institute of Technology, Kyoto University, Gifu University, Hokkai

The Chubu University and IIT Guwahati extended the existing MoU for a further period of 5 years on 21.08.2017.

On 8th May, 2017 IIT Guwahati signed an MoU with the National Institute of Advanced Industrial Science and Technology, Japan (NIAIST). The immediate outcome of the MoU was the establishment of a DBT-AIST International Laboratory for Advanced Biomedicine (DAILAB) for advanced cancer research. It is only the second such laboratory to be established in India.

Collaboration with Universities in China:

IIT Guwahati initiated the process of a “Cooperation Agreement on Applying for Strategic International Innovation key Grants” and an agreement was signed with Soochow University, China to mutually apply for the key grant of 2 Million USD to the Government of China for collaborative research of “Biometric Function Design of Silk-Based Biomaterials and Product Development for Tissue Regeneration”.

IIT Guwahati also signed an MoU with Yunnan University, China for collaborative research on 9 September, 2017.

NATIONAL COLLABORATIONS

IIT Guwahati has signed an MoU with the Indian Naval Academy Ezhimala for academic and research collaboration in the areas of mutual interest; exchange of students, faculty and cooperative seminars, workshops and other academic meetings.

ICCo India: An agreement was signed between Centre for Rural technology, IIT Guwahati and Innovative Change Collaborative, India to achieve common objectives of addressing India’s development challenges through partnerships, especially in North Eastern Region.

IIT Guwahati also signed MoUs with the Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, NIT Agartala and Assam Don Bosco University during the year under report.

MEMORANDA OF UNDERSTANDING (MoUs)

IIT Guwahati at present has 124 national and international collaborations aimed at facilitating research collaborations, student and faculty exchange, joint PhD supervision, and other research related activities. The Institute signed nineteen new MoUs with various educational and research institutes in Japan, China, Taiwan, Cyprus, Switzerland, France, Germany, UK, Romania, Czech Republic, Australia, USA, Argentina, Brazil etc. during the year under report.

INTERNATIONAL STUDENTS

A substantial number of international students from top universities visit IIT Guwahati every year to pursue full time masters, doctoral and short-term courses as exchange students and interns. Presently, there are 76 International Students studying in the campus including Research Interns and Exchange Students.

There are also a large number of students, faculty and staff of IIT Guwahati who have visited other institutions for exchange programmes, internships or under flagship programmes such the Erasmus Mundus, DAAD, MITACS, Erasmus+ KA-107, etc.

ALUMNI ACTIVITIES

IIT Guwahati Alumni meet 2017 was successfully organised in Hyderabad during August 2017 witnessing enthusiastic discussions amongst our alumni, students and other dignitaries. The Institute organised interactive sessions with



Foreign students observing International Day

alumni and the present students aimed at providing career and academic guidance to the current students. Eight alumni working in various sectors visited the Institute and interacted with the students. An initiative named Alumni Mentorship Program where Institute alumni would act as mentors to the currently registered students of IIT Guwahati was ideated during July-Dec 2017 semester and implemented during January-May, 2018 semester. A total number of 104 alumni were involved as mentors and 109 and 77 students from 3rd and 2nd year undergraduates respectively took part as mentees.

The Alumni & External Relations office organised an All IIT Deans' meet of Alumni & International Relations during 23-25 January, 2018. The theme and central focus of the meet was on Alumni, Startups and Entrepreneurships and the meet stressed on ways to create an ecosystem in the IITs to foster entrepreneurship and innovation. The participating IITs were represented by respective Deans/ Associate Deans and their Alumni Entrepreneurs and Startups.

FACULTY ACHIEVEMENTS

A number of faculty members received awards and brought



Darpan Bajaj an alumnus of IIT Guwahati won the Best Film Award at the prestigious Woodpecker International Film Festival 2017 for his documentary Maharajin

accolades for the Institute during the year. Some of them are:
Prof. Latha Rangan - Fellow of the National Academy of Sciences (NASI) Allahabad.

Prof. Bhisma Kumar Patel - Fellow of the National Academy of Sciences (NASI) Allahabad and Fellow of Indian Academy of Sciences (IAS).

Prof. Bhisma Kumar Patel - Govt. of Odisha "Samanta Chandra Sekhar Award".

Prof. Mihir Kumar Purkait - Fellow of the Royal Society of Chemistry.

Prof. Gautam Biswas was awarded Honorary Doctorate degree by the Senate of the Aristotle University of Thessaloniki, Greece which is a very well-known University in Greece and Europe.

Prof. Gautam Biswas - Honoris Causa (Honorary Doctorate) by the National Institute of Technology Agartala.

Prof. Parameswar K. Iyer has been invited to serve as the Editorial Advisory Board member of two prestigious American Chemical Society (ACS) journals viz. ACS Applied Nanomaterials and ACS Applied Biomaterials.



Prof. Bhisma Kumar Patel receiving the "Samanta Chandra Sekhar Award" from Shri Navin Patnaik, Hon'ble Chief Minister of Odisha

Dr. Poonam Kumari – awarded the prestigious Indian National Academy of Engineering (INAE) Young Engineer Award 2017.

Dr. Lalit Mohan Pandey, "Institution of Engineers (India) - IEI Young Engineers Award 2017-2018".

Prof. Arun Goyal, "Excellence in Carbohydrate Research Award 2017".

Dr. Manish Kumar Goyal - ISTE-SGSITS National Award for "Best Research Work by the Young Teachers of Engineering Colleges-2016" and IEI Young Engineers Award 2017-2018 in Environmental Engineering.

Dr. Debabrata Sikdar, "The Douglas Lampard Electrical Engineering Research Prize And Medal For 2016" for the Best PhD thesis Monash University, Australia.

Prof. Rakesh Singh Kshetrimayum and Dr. Brijesh Kumbhani - IETE S. K. Mitra Memorial Award 2017.

Prof. Arupjyoti Saikia - New India Foundation Fellowship for 2017.

Dr. Debasish Borah, won the first State Science Award, Assam in the segment "Young Scientist Innovator".

Prof. Gautam Biswas, Director, IIT Guwahati was conferred Honorary Doctorate by NIT Agartala at its tenth convocation

held on 11 November 2017.

Prof V K Dubey was elected as FRSB (Fellow, Royal Society of Biology, United Kingdom), He also became a Member of Board of Governors, The Biotech Research Society of India (BRSI) and Vice President of Bioinformatics and Drug Discovery Society (BIDDS). He was also awarded the Prize for Biomedical Research Conducted in Underdeveloped areas-2016 by Indian Council for Medical Research, Government of India.



Prof. Gautam Biswas, Director, IIT Guwahati was conferred Honorary Doctorate by NIT Agartala at its tenth convocation held on 11 November 2017.

Prof. Utpal Bora was honored with the Title of Vice President for the "Association for Promotion of DNA Fingerprinting and other DNA Technologies (ADNAT)" for the duration 2018 onwards.

Dr. Kusum K. Singh received DBT-NER Overseas Associateship.

Prof. Pranab Goswami has received Outstanding Contribution in Reviewing Awarded in January 2018 in recognition of his contributions made to the quality of the journal Biosensors and Bioelectronics by the Editors of Biosensors and Bioelectronics, Elsevier, Amsterdam, The Netherlands. He was also nominated as a member of Scientific Advisory Council (SAC) of IASST, Guwahati for a tenure of 3 years.

Dr. Pranjal Chandra was invited as Visiting Professor / Scientist at the Institute of Biophysio Sensor Technology, Pusan National University, South Korea.

Prof. V.S. Moholkar was elected as Fellow of Institution of Chemical Engineers (IChemE) London, U.K.

Dr. U. Manna was awarded the BNRS Young Scientist Research Award.

Dr. D. Das was awarded the DST UKIERI Thematic Partnership.

Dr. Sandip Paul has been selected as a top author (worldwide) and one of the most prolific authors of the Journal of Physical Chemistry B.

Dr. D. Srimani attended Alexander von Humboldt Programme at RWTH Aachen University.

Dr. Manish Kumar Goyal, Department of Civil Engineering has been recognised as an outstanding young scientist and awarded First Runner-Up prize during Indian Youth Poster Competition organized by the Asia-Pacific Network for Global Change Research (APN), Japan.

Dr. Rajan Choudhary was selected as Fellow of the Institution of Engineers (India). He was also appointed as Member of Committee H-9 on Composite Pavements of the Indian Roads Congress.

Dr. T.V. Bharat has received the best paper award in "Grouting Tech/Environment Tech" and conferred IGS– Prof. A.V. Shroff Biennial Award – 2017 for the paper "Experimental Analysis of Salt Diffusion in Compacted Clays by Through Diffusion and Half-Cell Technique" published in the proceedings of Indian Geotechnical Conference 2016, Chennai, India.

Prof. Pradeep Yammiyavar was conferred the MHRD 'Teaching Innovation Award – 2016' under the PMMMN Mission of the Govt of India which was announced in 2017.

Dr. Avinash Shende won the Bharat Jyoti Award 'India Glory Award' for outstanding work done for the people of North Eastern Region.

Dr. Kannan Karthik received Best Paper Award for the Computer Vision Track-1 in SSIC-2017 for title "Purple Fringing Aberration Detection based on Content Adaptive Thresholds)

Dr. R. K. Sonkar and Dr. Chandan Kumar awarded Young Faculty Research Fellowship (YFRF) of Visvesvaraya PhD Programme of Ministry of Electronics & Information Technology, MeitY, Govt. of India for a period of 5 years.

Dr. R. S. Kshetrimayum received best paper award (Third Prize) from IETE Journal of Research Best research oriented paper, 2017. He was also elected as Fellow of Institution of Engineering and Technology (IET), UK, 2017.

Dr. M. K. Bhuyan has been selected for the BIOIMAGING 2018 (Portugal) Best Poster Award for the paper entitled "Dense 3D Reconstruction of Endoscopic Polyp".

P.K. Bora and Rohit Sinha have been awarded the IET Signal Processing Premium Award 2017 for their paper titled "Electrocardiogram signal denoising using non-local wavelet transform domain filtering".

Dr. Sambit Mallick became a Fellow of Sociology of Science and Technology in India by Royal Asiatic Society of Great Britain and Ireland.

Dr. Dilwar Hussain received overall best paper award for his research paper titled "Inhibitors of the Information Technology Success: Insights from Qualitative Investigation" in International Conference on Management Practices for

the New Digital economy ICMAPRANE 2018.

Dr. Pahi Saikia received Indo-Shastri Mobility Grant from MHRD, Government of India.

Dr. Amaresh Dalal was awarded Medal and Prize by Indian Society of Heat and Mass Transfer in Best Young Researcher in Heat Transfer-2017.

Prof. G. Biswas delivered the Keynote Lecture in I2CNER Annual Symposium on Challenges in Thermal Science and Engineering organised by Kyushu University, Japan.

Dr. M. Ravi Sankar was awarded the Skill India Indo Global, Research Excellence Award 2017 by Andhra Pradesh and Telengana Skill Development Chapter 2017 for his contribution in Teaching and Research, 2017. He was also awarded Venus International Faculty Award 2017 for Outstanding Faculty in Mechanical Engineering, 2017.

Prof. P Muthukumar was awarded Mechanical Engineering Design Award 2017 by National Design & Research Forum (NDRF) of Institute of Engineers (India) for his Outstanding Individual contribution in Engineering Design. He was also awarded the Fulbright-Nehru Academic & Professional Excellence Award (Teaching & Research) 2017 by Indo-U.S. Science and Technology Forum for his Contribution in Teaching and Research.

Prof. P. Mahanta was invited as a Guest Faculty in Hof University of applied sciences, Germany. He has also received JSPS Fellowship (by invitation) from GIFU University, Japan from October 15 to December 13, 2017.

Dr. Poonam Kumari was awarded Young Engineer INAE-2017 by Indian National Academy of Engineering.

Prof. S. K. Dwivedy was awarded the award for Excellence for his paper published in the Mechanism and Machine Theory journal as one of the top 10 most cited papers since its first publication.

Dr. Bibhas Ranjan Majhi received Rashtriya Gaurav Award from Indian International Friendship Society, New Delhi.

Prof. P. K. Giri is awarded Visiting Research Fellowship, 2018, University of Birmingham, UK.

Prof. Perumal Alagarsamy received NIMS Global Collaboration Fellowship Program FY -2017. He has also received JSPS Invitational Fellowship for Research in Japan (Long term FY- 2018).

Dr. Tapan Mishra has been invited to become an Associated Faculty of ICTS-TIFR, Bangalore.

Congratulations to all.

CONSTRUCTION AND CAMPUS DEVELOPMENT

The Institute has seen considerable growth in number of students in the recent past. In conformity with this growth,

we are upgrading our infrastructure with new constructions and extensions.

Hostel Buildings:

Construction of the Boys' Hostel 10 with 1004 single accommodations along with all common facilities and including 200 rooms with attached toilets for Ph.D. scholars / foreign students is completed and all the rooms are ready for occupation. External works like development of cycle sheds, foot paths etc. are under progress. Construction of Boys' Hostel 11 with 1152 capacity, taken up in March 2015 is progressing satisfactorily. Superstructure works and electrical works in Block A is under progress. About 500 rooms are expected to be completed by 31.10.2018.



Newly completed block of Lohit Hostel

The whole work including the dining hall is expected to be completed by March 2019.

Expansion of Academic Complex Phase IV:

The Phase IV expansion of academic complex including class room complex was started in November 2012. The planned expansion of the Department of Chemistry, Electronics & Electrical Engineering and Mechanical Engineering have been completed and are in use. Construction of 18 class rooms of the Class room complex was completed in November 2017 and remaining works of 6 lecture halls of 200 capacity each are expected to be completed by July 2018.

Work on the 10th storied research building complex was started in March 2013 for housing the research facilities of

the faculty members and students pursuing undergraduate, postgraduate and Ph.D. programmes as well as to cater to the requirements of time bound funded research projects of various departments. At present and as per the scope of the contract, internal finish with HVAC and electrical works were completed up to G+3 floor in March 2018. However, considering increasing demand for requirement of space, internal finishing of another two floors was further added to the existing contract. Works in these two floors including remaining external development work is expected to be completed by June 2018.

Expansion of Academic Complex Phase V:

The Phase V of expansion of academic complex has been taken up in the Departments of Design, Computer Science & Engineering, Physics, Chemical Engineering, Humanities & Social Sciences, Mathematics and Centre for Nanotechnology along with clean room for the Centre. All major works in all the Departments have been completed. The finishing work is continuing which is expected to be completed by July, 2018. Work in the Centre for Nanotechnology is expected to be completed by March, 2019.

Residential buildings:

F-type (Phase-V): The tendering process for construction of 160 units of F-Type residential quarters in 4 towers having G+9 storied residential buildings has been completed and the work is expected to be started shortly.

C and B- type quarters: Work on the proposed 40 units of C and 20 units of B type residential quarters have been taken up. The estimate is under preparation and will be put up in next B&WC for technical approval. The expenditure for the project will be taken from Higher Education Funding Agency (HEFA).

Prefabricated residential quarters:

Construction of 12 units of residential quarters in prefabricated structure to meet the immediate demand for accommodation of faculty & staff has been completed in January, 2018 and all the quarters are under occupation.

Guest house 2:

The construction of 80 general room and 8 nos of VIP rooms out of 165 rooms of the newly constructed Guest House 2 has been completed. Another 50 rooms are almost ready for occupation. The remaining 27 nos room will be completed by the end of August, 2018.

To provide accommodation to the workers of the new as well as the previous Guest House, construction of one dormitory building had been approved by the Institute. The schedule date of completion is October 2018. The work



New Classroom complex nearing completion

is under progress now and around 50% work have been completed till date.

Dormitory for Security:

Construction of two G+3 storied dormitory buildings were started to provide accommodation to the security personnel manning the Institute. Work of One dormitory

building has been completed and the other is almost ready. However due to severe crisis for accommodation of newly joined faculty members, the Institute decided to convert the already completed building as transit accommodation for faculty members and accordingly, modifications are being implemented to create 12 residential units in the



A view of the newly constructed Guest House

said building. The work is expected to be completed by June 2018.

Maintenance of Internal Road:

The rectification and maintenance of internal roads of the IIT Guwahati campus for a length 8.5 Km was entrusted to Assam Public Works Department (APWD), NH Works in phase-II. The work was almost 80% completed in the year 2017 when some additional allotment of work was done under the same package. APWD (NH) has already mobilised for the additional works allotted and the extended date of completion for the total work has been given up to 13.11.2018. The total progress achieved so far with the extended work is 70% and expected to be completed within the extended time.

Pre-Primary School Building and Daycare Centre:

The work of construction of the Pre-primary school and Day Care Centre was awarded June 2016. The work has been completed and inaugurated by Prof. Gautam Biswas, Director, IIT Guwahati recently. The building is under use.

Estate Office:

The construction work of estate office for accommodating the Engineering Section including the supporting staff was allotted in October 2016. In the first phase, construction of G+2 has been taken up out of the approved G+3 structure. The work of First floor is expected to be completed by 31.10.2018 and the whole building by March 2019.

Boundary wall phase-V:

The construction of boundary wall phase-V (Group-A & B)



Newly constructed Building of Akshara - the Pre-primary School

of 10 feet height and of total 3900 Rm length from the main entrance gate in the northern side to Ghorajan nallah near sewage treatment plant was awarded in January 2017. A length of 2500 Rm is on low lying marshy land and balance 1400 Rm is on original soil. Both the groups have completed the part of isolated RCC footing on original soil. The piling work in low lying marshy area is almost 50% completed by both the groups and wall is also under progress. The work is expected to be completed within October 2018.

Electrical & AC Infrastructure:

Augmentation of the 33 KV substation and 4 nos. of 11 KV substations have been completed, one new 7.5 MVA transformer has been commissioned and under operation. As a part of the energy conservation strategy, old tube lights have been replaced by LED lights in Dihing, Kapili and Siang hostels. Simultaneously, old street/garden light fittings have been replaced with energy efficient LED fixtures and solar water heating system is installed in Boys' hostel 10. In addition, 25 Kwp solar plants have been installed in Computer and Communication Center and under operation. Another 490 Kwp solar plant in hostel areas have been completed and is in operation. Due to increased need for air-conditioning, proposal for augmentation of central air-conditioning plants is also in progress.

INSTITUTE EXPENDITURE

The details of expenditure (provisional) during the year 2017-2018 are as follows (in crores of ₹):

Revenue expenditure:	294.93
Capital:	224.99
R&D:	83.49
Total Expenditure:	603.41

In comparison, in 2016-2017, ₹446.74 crores were spent.

VISIT OF PARLIAMENTARY COMMITTEE

The first Sub Committee of the Committee of the Parliament on Official Language visited Guwahati during 23-24 October, 2017 to see the progress of the implementation of official language in the Institutions/Organisations under Central Government and had an interaction with the key officials of the Institute on 24 October, 2017. IIT Guwahati hosted the visiting Parliamentarians during their visit. The Department related Parliamentary Standing Committee on Human Resource Development also visited Guwahati on 31 October, 2018. The august members of the Committee interacted with the Heads of the Academic Institutions of Higher Education in this region to take stock of Higher Education and the way forward to raise the standard of education in India in the coming days.

EQUAL OPPORTUNITIES

The Institute is committed to extend all the required supports to the members from the reserved categories and differently abled persons. In the year under report, 140 new laptops were distributed to the July 2017 batch undergraduate, MSc & MA (Development Studies) SC/ST students, 171 undergraduate, MSc & MA (Development Studies) SC/ST students were given Book Allowances, special assistantship was provided to 23 regular SC/ST PhD students who could not complete their PhD programme as per Institute norms but continuing the same and six (6) folding wheel chairs were purchased and kept readily available for smooth movement of PWDs students. A marathon was organised for PWDs students on Republic Day. The Institute provided guidance and counselling to students with respect to academic, financial, social and other matters. Outgoing



Shri Satyabrata Chaturvedi (Convenor) and Shri Meghraj Jain (Member), Hon'ble Members of the Parliament, Rajya Sabha and other Ministry Officials during the first Sub-Committee of the Committee of the Parliament on Official Language

students were also given guidance and counseling with regard to higher studies/job/self-employment/tap financial resources for entrepreneurship etc.

A lecture on “Dr. B.R Ambedkar’s vision for social inclusion and social justice” was held on 5th January 2018 which was attended by a large number of students and employees. The speaker was Ms. Dona Biswas from Ambedkar University, Delhi.

STUDENTS’ ACTIVITIES

Alcheringa, the annual cultural festival of IIT Guwahati, was held during 1-4 February this year. Alcheringa is now regarded as a much anticipated students’ cultural event in the North-East where thousands of students across the country take part in various youth oriented competitions, workshops, seminars and informal events. The performances



Prof. Gautam Biswas, Director addressing the 22nd Coordination Committee Meeting of the Federation of All IITs SC/ST Employees Welfare Associations

of musicians and performing artistes of repute are the real crowd puller. In the past Alcheringa has featured some exhilarating performances from some of the biggest names in the entertainment industry.



A cultural troupe from North East India showcasing their culture during Alcheringa 2018

Techniche-2017 – the nineteenth edition of annual techno-management festival of the Institute – was held during 31 August –3 September 2017. Techniche has been an extra-ordinary platform to showcase the latest inventions, exhibitions and technological advances from all over the globe. The student teams organise a plethora of events and competitions all designed to make the participants step outside their comfort zones and challenge the institution of conventional thinking. In this edition of Techniche IIT Guwahati hosted Dr. Nadrian Seeman, inventor of field of DNA Nanotechnology, Dr. Thomas Barclay, Senior Research Scientist at NASA, Mr. Mike Morasky, VFX Artist of The Matrix and The Lord of The Rings movie series and others who had interactive discussions with the students.

Other regular student events like Manthan, Spirit, Spardha were successfully organised by the students during the year. Moreover, there have been regular events and competitions organised by the various clubs and societies of the Institute.

Other regular student events like Manthan, Spirit, Spardha were successfully organised by the students during the year. Moreover, there have been regular events and competitions organised by the various clubs and societies of the Institute.

STUDENTS’ ACHIEVEMENTS

Yogendra P. Singh, a research scholar of the Dept. of BSBE was selected for two International Fellowships - Newton-Bhabha Fellowship and Raman-Charpak Fellowship for the year 2017.



A glimpse of people participating in Half Marathon during Techniche 17



A snapshot from the drama, "Khamosh - Aadalat Zari Hai" performed by students

G. Janani (PhD student, 2015) was selected for the prestigious Fulbright Nehru Doctoral Research Fellowship 2018. Janani will be visiting USA for 09 months (starting July 2018) and will pursue research work at McGowan Institute, Pittsburg University with Prof. Stephen Badylak on "Bioartificial Liver".

Shreya Mehrotra (PhD student, 2013) was awarded prestigious Fulbright Nehru Doctoral Research Fellowship 2017. Shreya is visiting USA for 09 months (September 2017-June 2018) and pursued research work at MIT-Harvard University with Prof. Ali Khademhosseini on "Bioartificial Cardiac Patch".

Prerak Gupta (PhD student, 2013) awarded prestigious Fulbright Nehru Doctoral Research Fellowship 2017. Prerak is visiting USA for 09 months (September 2017-June 2018) and pursued research work at Pittsburg University with Prof. David Vorp on "Bioartificial Blood Vessels".

Rishikesh Shukla: Young Scientist Award, SBCI: Received Young Scientist Award at 86th Annual Meeting of Society for Biological Chemists, India, Nov. 16-19, 2017 Jawaharlal Nehru University, New Delhi, India.

Saiprasad Pati (M. Tech) has received the "Ambuja's Young Researcher's Awards for doing Post-Graduate Studies in India", at the 70th Annual Session-cum-Indian Chemical Engineering Congress (CHEMCON 2017).

Angshuman Das, 2nd year M.Sc. student of the Dept. of Chemistry has secured first (All India) rank in Chemical Sciences in CSIRUGC-NET-2017.



Students from the Dept. of Design won the Student Design Challenge organized by the Human Factor and Ergonomic Society of Australia (HFESA) during the HCI conference OzCHI 2017 at Brisbane, Australia

Adil and Dibyangana got Tertiary Prize in ISBE Bionic Innovation Competition.

Md. Adil Afroz was selected for BSBR Fellowship for 6 months in the USA.

Akriti Kaur was awarded the ACM SIGGRAPH Travel Scholarship to attend VRST 2017 in Sweden. She was also the ACM Student Ambassador at the 50th Turing Awards, San Francisco,

Amit Kumar Baghel (Research Scholar) and Shashak S. Kulkarni (Project Staff) have been awarded the Gandhian Young Technological Innovation (GYTI) 2018 award for the project titled "Feasibility Study of Wireless Power Transfer using Metamaterial".

Mathew Francis (Research Scholar, Dept. of EEE) received the Flytxt Fellowship Award for his paper titled 'Object Tracking with Classification Score Weighted Histogram of Sparse Codes' at the 7th International Conference on Pattern Recognition and Machine Intelligence (PReMI 2017).

M. Kumari received an International Travel Grant (full) from the Centre for the Study of the Sciences and the Humanities, University of Bergen, Norway to attend the 9th Annual

Meeting of the Society for the Study of New and Emerging Technologies, Phoenix, Arizona, USA.

Ramesh Prasad Panda, a research scholar, received the best paper presentation award for presenting a paper titled “The Laplacian Spectrum of Power Graphs of Generalized Quaternion Groups” in the National Conference on Discrete Mathematics (NCDM-2017).

Kishor Kumar Gajrani a research scholar received the best paper award for his paper ‘Comparative Studies on Mineral Oil, Eco Friendly Bio-Cutting Fluids Treatment and their Machining Performance’ in the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB).



A student team from IIT Guwahati won second place in the Stanford Center on Longevity 2017-2018 Design Challenge competition. The team was comprised of Akshat Mandloi, Nakul Kasture, Nikhil Kumar and Purvish Shah. The entry from IIT Guwahati named “Gesturecise” is a prototype aimed to detect body gestures through a computer webcam and prompts the user to stretch and move if they have been sedentary for a long period. The Stanford Center on Longevity Design Challenge is a global competition aimed at encouraging students to design products and services to improve the lives of people across all ages.

Sunil Kumar Singh, a research scholar received 2nd Prize in the Student’s Mechanism Design Contest in the International National Conference on Mechanism and Machines (iNaCoMM), December 2017.

Md. Nur Alom, a research scholar received the ASME Young Engineer Turbo Expo Participation Award for his research on arriving at the optimum overlap ratio for an elliptical-bladed Savonius rotor, awarded by the American Society of Mechanical Engineers, USA.

Pilik Basumatary received the best paper award and a cash prize of ₹2000/- at the “International Workshop on Physics of Semiconductor Devices”, held at IIT Delhi.

Shubhangi Bhardwaj received the Young Scientist award at “Advances in Spectroscopic Techniques and Materials”, held at IIT(ISM)-Dhanbad.

Mriganka Saha received the SRISTI-BIRAC Appreciation Award of INR 1,00,000/- during the winter school program organised by SRISTI Ahmedabad.

Ashish Singh received an International Travel Award, 2017 from the Department of Science and Technology, India.

Anamika Dey received the IITG – CSIR-Direct SRF Award, 2017 from the Council of Scientific and Industrial Research, India.

Srimonti Dutta, Manoj Sharma and Suranjit Basumatary secured a position in the winners list in the event “Ideathon 2017” organised jointly by the Assam government and the UNDP for providing a solution to the market linkage problem prevailing in the Assam handloom sector.

Niranjan Meher received best poster awards at the NewtonBhabha Indo-UK meeting held at IISER Kolkata in December 2018.

The performance of IIT Guwahati sports team at the 52nd Inter IIT Sports Meet 2017 held at IIT Madras was satisfactory. A total of 5 medals were won in the sports meet. In Tennis, IIT Guwahati boys won the Gold medal while in Table Tennis, the girls won the Silver medal. 1 Gold and 2 Bronze medals were also won by the Weightlifting Team.

Congratulations to all of them.

CAMPUS PLACEMENT

The placement scenario at IIT Guwahati for the year 2017-2018 has been impressive so far. A total of 120 companies from various categories [Private, MNC (Indian origin and Foreign origin), Govt., PSU, NGO etc.] and sectors (Sector wise – IT, R&D, Core Engineering, Consulting, Analytics, Finance, Oil & Gas, Education, Pharmaceutical etc.) participated in



A school student participating in Techniche 2017

the recruitment process. The total number of registered students for campus placement in the year 2017-2018 is 979. The overall placement of BTech and BDes students is 79.7%. For BTech and BDes, the total number of jobs offered is 428 for 537 students. An average package offered for BTech and BDes students is 15.57 lakhs per annum (treated as CTC).

The overall placement for MTech and MDes students is 50.31%. For MTech and MDes, the number of total job offers is 159 out of 316 students. An average package offered for students is 10.97 lakhs per annum (treated as CTC). For MSc programmes, 4 (Mathematics-4) students have been

placed out of 51 registered candidates. For MS (R) program, 1 student has been placed out of 12 registered candidates. For the programme, 2 students have been placed out of 18 registered candidates.

For PhD programmes, 8 PhD students (CSE-2, ME-1, EEE-2, CE-2, Nano technology-1) have received job offers out of 45 registered candidates. This is mainly in the Education and Research sectors.

Overall placement of all programs (BTech and BDes, MTech and MDes, MSc, MSR, MA, PhD) is 61.49%.



Graduating students posing for a photograph with Prof. Gautam Biswas and other faculty members of the Institute

PART II

ACADEMIC DEPARTMENTS

Biosciences and Bioengineering
Chemical Engineering
Chemistry
Civil Engineering
Computer Science and Engineering
Design
Electronics and Electrical Engineering
Humanities and Social Sciences
Mathematics
Mechanical Engineering
Physics

ACADEMIC CENTRES

Centre for Energy
Centre for the Environment
Centre for Linguistic Science and Technology
Centre for Nanotechnology
Centre for Rural Technology

EXTRAMURAL CENTRES

Lakshminath Bezbaroa Central Library
Centre for Education Technology
Central Instruments Facility
Computer and Communication Centre

DEPARTMENT OF BIOSCIENCES AND BIOENGINEERING

The Department at a Glance

Year of Establishment: 2002

Academic Programmes Offered:

Bachelor of Technology (BTech)

Master of Technology (Mtech)

Doctor of Philosophy (PhD)

Total Faculty Strength: 39

- Professor: 13
- Associate Professor: 16
- Assistant Professor: 10

New Faculty Members Joined: 2

- Assistant Professor: 2

Total Student Strength: 482

BTech: 192

MTech: 72

PhD: 218

New Students Joined in 2017-2018: 141

BTech: 61

MTech: 42

PhD: 38

LABORATORY FACILITIES

- i. **MAB (Mechanistic Approaches to Biology) Lab** (Dr. B. Anand): The laboratory employs a combination of approaches encompassing Bioinformatics & Computational Biology, Biochemical and Biophysical approaches and X-ray crystallography. The current research interest of the lab pertains to RNA Biology and Molecular Evolution.
- ii. **BERL (Bioengineering Research Laboratory)** (Prof. Utpal Bora): The research interests of this laboratory include Biomedical Engineering, Seri-biodiversity, Seri-bioinformatics and Bio-entrepreneurship.
- iii. **Molecular Networks and Recombinant Therapeutics** (Dr. Biplab Bose): The lab is interested in understanding the inter-connected cellular communication systems. Particularly, the lab is interested to know the effect of architecture, kinetics and integration of the molecular pathways on vital cellular processes. The lab uses experimental as well as theoretical tools to understand how information is carried and processed in such signaling networks. The lab is also involved in developing molecules that can target particular signal transduction pathway. Such a molecule can be used to modulate an aberrant pathway involved in a particular disease.
- iv. **Dr. Pranjal Chandra lab:** The lab is interested to combine biotechnology, nanotechnology, material science, and electroanalytical chemistry, approaches to address problems of biomedical significance, human health, and environmental monitoring. Specifically, the lab is interested to develop novel and commercially viable bioanalytical methods for diagnostics applications. The major research work is focused on: (i) Clinical Diagnostics (Cancer cells, DNA, RNA, bio-markers) using electroanalytical methods such as cyclic voltammetry, chronoamperometry, impedance spectroscopy, (ii) Nano-biosensors (Aptamer, antibody, enzyme) based biological phenomenon investigation, (iii) Porous silicon based label free self-reporting optical nanosensors, (iv) Microfluidics and Nanomachines.
- v. **Plant Tissue Culture & Secondary Metabolite Production Lab** (Prof. Rakhi Chaturvedi): The tree species with long generation cycle are mostly highly heterozygous in nature due to strict cross pollination and are considered to be recalcitrant (difficult to regenerate in vitro). The genetic improvement of these plants and development of homozygous lines (pure) is either very challenging or impossible using the conventional methods, because the cross pollination is a rule. This limitation has completely been overcome by the research group of Dr Chaturvedi while working on two complex tree species, Neem (*Azadirachta indica*) and Tea (*Camellia* species) Prof. Chaturvedi's laboratory has also involved in developing Plant Cell Culture Technology as an alternative to whole plant extraction for the production of secondary metabolites of medicinal and commercial values. Although these compounds can also be isolated from naturally grown whole plants, continued destruction of plants for the purpose may pose a major threat to species getting extinct. Her research group is able to identify, purify and isolate three main categories of bioactive metabolites: essential oils, coumarins and alkylamides, from in vitro elite cell lines of medicinal plants. Some of these compounds are complex triterpenoids, which are difficult to synthesize chemically. The focused research work in the laboratory are: (i) Mass multiplication by micropropagation/ clonal propagation of medicinally and economically valuable plants, (ii) In vitro haploid and doubled haploid plant production to generate homozygous (pure) lines to produce hybrid vigour for improved plant yield, (iii) Triploid plant production to develop seedless variety, (iv) Somatic embryogenesis for synthetic seed production, (v) Protoplast isolation and regeneration for single cell cloning and isolation of mutants, (vi) Cytological and Histological studies of in vitro raised cultures to understand their ploidy, development and origin (vii) Cell biomass production in shake-flask for screening, characterization and quantification of medicinally and commercially useful plant metabolites and their scale-up in photo-bioreactors
- vi. **Biophysical Chemistry Lab** (Dr. Nitin Chaudhary): The laboratory focuses on understanding the molecular self-assembly and amyloid diseases, protein/peptide membrane interactions, and developing peptide based antibiotics.
- vii. **Bioprocess Development Lab** (Dr. Debasish Das): The research focus of the lab is the process development for various value added products using microbes as a cell factory. The areas that are currently being pursued are: biodiesel production from freshwater microalgal isolates *Chlorella* sp. and diatoms; bioethanol from agricultural wastes, process development for hyaluronic acids from new *Streptococcus* isolates and butanol production from *Clostridium* sp. The lab aims at improving overall performance of the technology via combined modifications at the process (Biochemical engineering approach) and strain level (genetic engineering approach). The lab has expertise to create solutions for process development by combining biochemical and biological knowledge with engineering principles.
- viii. **Prof. V. V. Dasu lab:** The laboratory focuses on Bioprocess development (upstream to downstream), metabolic engineering, and bioenergy.
- ix. **Laboratory of Protein Biochemistry & Biochemical Parasitology** (Prof. Vikash Kumar Dubey): The laboratory focuses on understanding protein structure and function, molecular aspects of parasitology, and drug discovery. The lab has been recognized as "Unit of excellence in Molecular and Biochemical Parasitology" by Department of Biotechnology, Government of India.
- x. **Prof. Siddhartha Sankar Ghosh lab:** The laboratory focuses on development of new generation gene therapy vectors. This mainly includes development of suicide gene therapy for cancer. The lab has also set up infrastructure facilities for interdisciplinary collaborative research in the field of nanoscience and nanotechnology supported by

extramural funding at the Centre for Nanotechnology, IIT Guwahati. The major area is to develop new nanoparticles, nanocomposites and nanocarriers and evaluate their antimicrobial and anticancer activities. The lab is perusing research to understand molecular mechanisms of nanoparticle mediated cell cytotoxicity. Other areas, such as, bioimaging using C-dots, metal nanoclusters, gene delivery using quantum dot embedded nanocarriers are also being pursued. The lab is also interested in understanding the molecular pathways involving drug resistance.

xi. Biosensor and Biofuel Cell Research Lab (Prof. Pranab Goswami): The lab is involved in the development of novel bio-recognition system and their applications for developing biosensors and biofuel cells. DNA aptamers, catalytic as well as non-catalytic proteins have been investigated as biorecognition elements for some clinical applications targeting to operate in point-of-care and resource limited environments. Focus has been given on the rapid detection of acute myocardial infarction (AMI), cholesterol, alcohol, bilirubin and malaria due to their obvious importance in diagnostic sector.

xii. Prof. Arun Goyal Lab: The lab research interests include Microbial Biotechnology, Molecular Biology, Protein Engineering, Structural & Functional studies of carbohydrate enzymes.

xiii. Dr. Cota Navin Gupta: The research interest of the lab includes Imaging Genetics, Biomedical Signal/Image Processing, Multimodal Analysis, Computer Aided Diagnosis, and Biomedical Instrumentation.

xiv. Stem Cell and Cancer Biology Group (Dr. Bithiah Grace Jaganathan): Stem cell and cancer biology group focuses on the identification of factors affecting the differentiation of mesenchymal stem cells and the role of cancer microenvironment in cancer chemoresistance.

xv. Structural and Computational Biology Laboratory (Dr. Shankar Prasad Kanaujia): The lab uses the knowledge of various techniques such as molecular biology, structural biology (X-ray Crystallography) and biophysical and biochemical studies to understand the mechanism of different biological functions. In addition, the lab applies the molecular dynamics simulations to further corroborate the results obtained from various experiments. Currently, the lab is focusing on investigating into the mechanisms involved in protein translation initiation, ABC transporters and their role in multidrug resistance.

xvi. Molecular Microbiology Laboratory (Dr. Manish Kumar): The research interests of the lab include (i) Molecular interaction of host-pathogen-vector of infectious diseases, (ii) Gene expression analysis of Spirochete, Leptospira interrogans and Borrelia burgdorferi, (iii) Development of vaccine against outer membrane protein of Leptospira interrogans and Borrelia burgdorferi, and (iv) Vector borne diseases of Zoonotic importance.

xvii. Viral Immunology lab (Dr. Sachin Kumar): The

paramyxoviruses include viruses that are isolated from many species of terrestrial, avian and aquatic animals. The group includes many important pathogens of humans such as measles virus, human respiratory syncytial virus, human parainfluenza viruses, Nipah virus and Hendra virus and animals such as canine distemper virus and Newcastle disease virus. Newcastle disease virus (NDV) is the prototype member of this family and is a leading cause of respiratory disease in avian species. It leads to huge economic losses to the poultry industry in India. The laboratory focuses mainly on understanding the biology of avian paramyxovirus and development of vaccine against them using reverse genetics system.

xviii. Cancer Biology Laboratory (Dr. Ajaikumar B. Kunnumakkara): The research interests of the lab include (i) Role of inflammatory pathways in cancer development, (ii) Identification of novel biomarkers for cancer diagnosis and prognosis, (iii) Cancer drug discovery, and (iv) Development of transgenic and gene knockout mouse models for biomedical research.

xix. The Molecular Endocrinology lab (Dr. Anil Mukund Limaye): The laboratory focuses on the following research themes: (i) Hormone regulation of gene expression, (ii) Role of estrogen in breast tumor invasion and metastasis, (iii) Regulation of cystatin A expression and its role in breast cancer, (iv) HoxB2 in breast cancer, (v) GPR30/GPER-1 biology, (vi) Mechanisms of anticancer activity of EGCG, (vii) Karanjin and its biological effects.

xx. Dr. Soumen Kumar Maiti Laboratory: The research interests of the lab include Biochemical Engineering, Biofuel, Bioprocess modeling, control, optimization, Metabolic engineering, Downstream processing, Membrane separation, Bioremediation.

xxi. Biomaterial and Tissue Engineering laboratory (Dr. Biman B. Mandal): The laboratory is a "Unit of Excellence" as granted by DBT, Govt. of India at Biosciences and Bioengineering Department, IIT Guwahati. The lab focuses on a number of tissue engineering projects generously funded by National and International grants towards affordable human healthcare translational products.

xxii. Organelle Biology and Cellular Ageing Lab (Dr. Shirisha Nagotu): The lab focusses on understanding the biogenesis of organelles and the inter-organelle communication within a cell. The lab tries to understand the effect of ageing on organelle biology and the role of organelles in cellular ageing.

xxiii. Prof. Kannan Pakshirajan's laboratory: The research interests of the lab are Environmental Biotechnology, Biological removal and recovery of inorganic compounds from wastewaters, Biofuels and other Biotechnological Products: production, process design, kinetics and environmental applications.

xxiv. Bio-interface & Environmental Engineering Lab (Dr. Lalit Mohan Pandey): The laboratory focuses on the

following research aspects: (i) Surface and interfacial science particularly in the area of Bio-interfaces and Biomaterials (Design of Biocompatible surfaces): The surfaces are modified using various Self-Assembled Monolayers (SAMs) and their interactions with water, bio macromolecules i.e. polymers, proteins and cells are studied, (ii) Protein's adsorption and aggregation: The lab investigates the adsorption behavior and properties of various adsorbed proteins on surfaces with different wettabilities by forming mono, mixed and hybrid SAMs. The role of surface chemistry at the nanometer scale on aggregation of various therapeutic proteins is studied, (iii) Environmental Biotechnology: The lab focuses on 3Rs. Reduce waste generation, recycle the treated waste and reuse waste as by-product or recover energy from the waste.

xxv. Dr. Sanjukta Patra laboratory: The research interests of the lab include enzyme applications, biotransformation, and biosensors.

xxvi. Prof. Aiyagari Ramesh laboratory: The research interests of the lab include Nanobiotechnology, Chemistry-Biology Interface for Developing Antibacterials and Sensors.

xxvii. Molecular Informatics and Design Group (Dr. Vibin Ramakrishnan): Molecular Informatics and Design Group integrates diverse disciplines of science and engineering in the design and development of advanced materials. The lab's approach to a research problem is 'idea centric' with a clear emphasis on the design phase, adopting modeling and informatics tools. The lab experiments a reductionist approach in understanding the interaction between molecules resulting in assembled architectures at nano and micro scale, and further employ it in the design of future materials. An information based modeling approach has been employed in the design and generation of tumor homing and cell penetrating molecules to test their efficacy as future drug delivery vehicles.

xxviii. Applied Biodiversity Laboratory (Prof. Latha Rangan): The group tries to address the research questions in areas of Applied Biodiversity with special reference to bioresources of Northeast India using an integrative approach.

xxix. Translational Crop Research Laboratory (Prof. Lingaraj Sahoo): Pathogens, insects and abiotic stresses cause major losses in yield and quality of crops. The discoveries in basic plant research play a vital role in meeting these challenges by developing technologies to improve agriculture by introducing important traits to crop of interest. The lab employs integrated approaches to identify genes with significant agronomic impact in both model (*Arabidopsis*) and crops (grain legumes and oil seeds), understand the mechanism by which they function and using this knowledge, develop designer crops for diverse plant abiotic (drought, salinity and nutrient deficiency or toxicity) and biotic (viral and insect) stress conditions, useful for growers, industry and consumers. Besides, the lab is working on biofortification in Asiatic grain legumes for healthcare applications and manipulation of key oil

biosynthesis genes yield in *Jatropha*, a tropical perennial biofuel crop to improve oil quality and oil.

xxx. Prof. Gurvinder Kaur Saini laboratory: The laboratory works in fungal biotechnology. The various aspects that are studied include (i) secondary metabolite production, (ii) development of hyper virulent strains of *Metarhizium anisopliae* and *Beauveria bassiana* using scorpion and spider neurotoxins, (iii) gene stacking in entomopathogenic fungi.

xxxi. Computational Structural Biology laboratory (Dr. Priyadarshi Satpati): The research in the lab is focused to understand the speed and accuracy of translation using Computer Simulations. Using explicit solvent all atom molecular dynamics free energy simulations, the lab studies the protein-ligand, protein-RNA, RNA-RNA interactions and their relevance to biology. The lab is specially interested in translation factors, synthetases (aaRS), Ribosome etc.

xxxii. Bio Process Analytical Technology (BioPAT) Laboratory (Dr. Senthilkumar Sivaprakasam): The lab develops PAT technology for recombinant therapeutic proteins and value added compounds such as biopolymers, organic acids etc. PAT is defined as 'System for designing (process development), analysing and controlling manufacturing process, based on timely measurements of critical quality and performance attributes of raw material, in process materials and processes with the goal of ensuring final product quality'. PAT methodology envisages the identification of Critical Process Parameters (CPPs) and Critical Quality Attributes (CQAs) for every process. The CPPs are the indication of the overall reliability that a process proceeds in the desired direction. Therefore, their monitoring and control establishes the uniform product quality. 'Quality by design' in the PAT emphasizes that monitoring to be accomplished not only during the process, but should begin from raw material characterization, its processing, upstream process, product recovery, downstream process and till the polishing step. Therefore, this reduces the much effort emphasized by regulatory authorities on ensuring quality.

xxxiii. Dr. Kusum Singh Laboratory: The laboratory focuses on the RNA-binding proteins that are involved in the splicing machinery. During splicing of premature mRNA, the spliceosome deposits a multiprotein complex termed exon-junction complex (EJC) onto the mRNAs. The subunits that form the core EJC are eukaryotic translation initiation factor 4A3 (eIF4A3), Y14, MAGOH and barentsz (BTZ, CASC3, and MLN51). Many proteins interact with the core EJC and our focus of study is a protein complex termed as Apoptosis- and Splicing-Associated Protein (ASAP). Components of both ASAP and EJC have been found to function in a wide range of activities pertaining to RNA metabolism including splicing, translation, nonsense-mediated mRNA decay (NMD) and apoptosis. We are currently focusing on the following research areas: Understanding the functions of ASAP with respect to EJC in mRNA metabolism. Elucidating the molecular involvement of RNA-binding proteins (RBPs) in various human diseases

such as cancers, neurodevelopmental disorders. Exploring the post-transcriptional gene regulations of different RBPs.

xxxiv. Protein Biophysics Lab (Prof. R. Swaminathan): The main research focus in this lab is to investigate the structure, function and dynamics of proteins using spectroscopic techniques like UV-Visible spectroscopy and Fluorescence spectroscopy. Protein charge transfer spectra in the 250--800 nm region arising from charged amino acids like Lys and Glu is of special interest.

xxxv. Neurospora Research Group (Dr. Ranjan Tamuli): The lab is interested to understand the molecular mechanism of calcium signaling pathway using the model filamentous fungus *Neurospora crassa*. Calcium ion is a universal second messenger molecule that impacts almost all cell processes in eukaryotes. The lab hopes to extend its research to understand the role of calcium signaling in memory, learning, and other related areas in future.

xxxvi. Laboratory for Stem Cell Engineering and Regenerative Medicine (Dr. Rajkumar P. Thummer): The lab focuses on generation of transgene-free induced pluripotent stem cells for biomedical applications and understanding the role of core stem cell-specific transcription factors in maintaining stem cell identity and function.

xxxvii. Malaria Research Group (Dr. Vishal Trivedi): The research interests of the lab include Anti-malarial Drug Discovery, Immunotoxicity studies in Macrophages, Regulation of Innate Immune Response, Endothelial Cells-RBC cytoadherence during Cerebral Malaria, Designing immunostimulatory and Anticancer agents

xxxviii. Dr. Selvaraju Narayanasamy Lab: The research interest of the lab includes Environmental Biotechnology, Bioprocess Engineering, and Biochemical Engineering.

xxxix. Biomechanics and Simulations lab (Dr. Souptick Chanda): The Lab is primarily engaged in design and optimization of various orthopaedic implants based on in vitro and in silico biomechanical testing/validations. Simulations for surgery and patient examinations training are also being envisaged at this laboratory.

xl. Computational lab: The computational lab is used for carrying out the Bioinformatics and Computational Biology Lab, a lab course of the B.Tech. curriculum.

xli. Experimental Teaching laboratory: The laboratory is used to conduct the experimental course of the B. Tech. and M. Tech. curricula.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

- CytoFlex Flow Cytometer from Beckman Coulter (2 laser 6 color)
- UV-Vis Spectrophotometer from Thermo Scientific
- Eppendorf Refrigerated Centrifuge and Gradient PCR
- Muffle Furnace (Model: RT 230 IFG-05')
- Gradient PCR Thermal Cycler (Model: T100)

- UV/Vis Double beam spectrophotometer (Model: Evolution 201)
- UV Crosslinker (Model no. CL-1000)
- 4210 Microwave Plasma Atomic Emission Spectrometer (Model: 4210 MP-AES)
- FTIR (Fourier-transform infrared spectroscopy) (Model: IRAffinity-1S WL)
- Analytical HPLC system (Model: LC-20AD)
- CD (Circular Dichroism Polarimeter) (Model: J-1500 (150W))
- Real-Time PCR and Flow cytometer
- Deep freezer (Model: U 410); Spectrophotometer (Model: Biospectrophotometer basic)
- MultiskanGO Microplate NANODROP spectrophotometer with µdrop plate (Model: MultiSkanGO Thermo Nanodrop UV-Vis)
- Dynamic Light Scattering Instrument
- FPLC & Ultracentrifuge
- FTIR, Rheometer, Fluoremeter
- Scigenics Orbital Shaker
- Quantitative RNA expression and PCR detection system (Model no. G8830A)
- Multi rotor refrigerated centrifuge (Model no. 5430R)
- Spectrophotometer for nucleic acid and protein quantification (Model no. Biospectrometer basic)
- Cary 100 UV-Vis Spectrophotometer from Agilent Technologies
- Multifuge X3R Cooling table-top centrifuge from Thermo fisher Scientific
- GC MS 7890B GC System along with 5977B MSD from Agilent Technologies
- HTL from Amar Equipments

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Cell signaling, Systems Biology, Protein Biochemistry, Molecular Biology, Immuno Parasitology, Biofuel, Biochemical Engineering, Tissue Engineering and Biomaterials, Organelle Biology, Inter-organelle Communications, Cellular Ageing, Bio-interfaces and Biomaterials, Environmental Biotechnology, Nanobiotechnology, Chemistry-Biology Interface for Developing Antibacterials and Sensors, Stem cell engineering and regenerative medicine, Molecular Parasitology, Computational Biology, Plant Biotechnology, RNA Biology, Structural Biology, Fungal Biotechnology, Molecular Endocrinology, Systems Biology, Bioprocess Engineering, Cancer Biology.

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

- i. Professor V K Dubey: Evaluated CAAX prenyl protease II as a possible drug target against *Leishmania donovani* parasite, the causative agent of visceral leishmaniasis. Gene knockout strategy was employed to target CAAX prenyl protease II and subsequent effects were studied. CAAX prenyl protease II knockout resulted in significant decrease in growth and infectivity.
- ii. Professor VK Dubey: Investigated the role of methionine aminopeptidase 2 (MAP2) in miltefosine induced programmed cell death (PCD) in promastigote form of *L. donovani*. Identification of novel anti-leishmanial drugs.
- iii. Professor U Bora: The work entitled "The mitochondrial genome of Muga silkworm (*Antheraea assamensis*) and its comparative analysis with other lepidopteran insects" published in PLOS ONE was highlighted in Nature India. (doi:10.1038/nindia.2017.144 published online 24 November 2017).
- iv. Dr. Ajaikumar B. Kunnumakkara's laboratory was inaugurated as DBT-AIST International Laboratory for Advanced Biomedicine (DAILAB) from May 8, 2017 onwards.
- v. Dr. Ajaikumar B. Kunnumakkara's laboratory was recognized as Unit of Excellence in Cancer Drug Discovery by Dept. of Biotechnology, Govt. of India.
- vi. Dr. Ajaikumar B. Kunnumakkara: A study conducted where we showed that a highly bioavailable curcumin formulation improved symptoms and diagnostic indicators in rheumatoid arthritis patients.
- vii. Dr. Ajaikumar B. Kunnumakkara: Published articles in collaboration with Cancer Research Center, University of Tennessee Health Science Center, Memphis, TN 38163, USA; Pamela Buffett Cancer Center, University of Nebraska Medical Center, Omaha, NE 68198, USA; Ton Duc Thang University, Ho Chi Minh City, Viet Nam; Yong Loo Lin School of Medicine, National University of Singapore; Curtin Health Innovation Research Institute, Curtin University, Perth, Australia; National University Cancer Institute, National University Health System, Singapore; University of Texas MD Anderson Cancer Center, Houston, TX, USA; Inflammation Research Center, San Diego, CA, USA and School of Pharmacy and Health Professions, Creighton University, Omaha, Nebraska, USA.
- viii. Professor Ramesh A: Low molecular weight synthetic amphiphiles and metal complexing ligands have been explored for antibacterial and antibiofilm applications. A dual dye flow cytometry based assay was developed to compare the potency of native probiotic lactic acid bacteria in inhibiting pathogen adhesion as well as to probe the mechanistic aspects of the adhesion inhibition process on model human intestinal cells. In another research endeavor, ratiometric detection of sulfite in solution as well as in live cells using imaging tools has been accomplished.
- ix. Dr Lalit Pandey: Biodegradable chitosan, carboxymethyl cellulose and silver nanoparticle modified cellulose nanowhiskers mediated scaffolds were synthesized successfully, exhibiting sufficient protein adsorption and mineralization capacity for bone tissue regeneration.
- x. Dr Lalit Pandey: Ti6Al4V surfaces were successfully modified with SAMs of amine, octyl, mixed, hybrid and COOH functional groups and tested for protein adsorption fibroblast cell adhesion and antibacterial properties. The surfaces with hybrid SAM was found to be a potential surface modifier.
- xi. Dr Lalit Pandey: Biodegradable chitosan, polyvinylpyrrolidone, and cellulose nanowhiskers nanocomposite thin films were fabricated successfully, exhibiting high biocompatibility with excellent antibacterial activities for wound dressing applications with sustained drug release.
- xii. Dr Lalit Pandey: Edible (coconut) oil nanoemulsions, loaded with α -tocopherol (Vitamin E) were formulated with moderate biomolecule loading capacity and excellent antibacterial activity, for drug delivery applications. 2 mL of the prepared nanoemulsion was found to sufficient for the daily dietary intake of α -tocopherol.
- xiii. Dr. Biman B Mandal: Developed affordable "Bioartificial Intervertebral (Spinal) Disc" for spinal injury and back pain mitigation. The research was published in PNAS and highlighted in "The Hindu" National newspaper and Rajya Sabha TV.
- xiv. Dr. Biman B Mandal: Developed "Bioengineered Liver Platform" to help patients suffering from liver cirrhosis. The research was published in Acta Biomaterialia and highlighted in "The Hindu" National newspaper.
- xv. Dr. Biman B Mandal: Developed "Bioartificial Pancreas" which naturally produce insulin towards treatment of type-1 diabetes. The research was published in ACS Biomaterials Science & Engineering and highlighted in "The Hindu" National newspaper and Nature India. Also listed in the "Yearbook 2018" published by Disha, "Quarterly Current Affairs 2017" and "General Knowledge Today".
- xvi. Dr. Biman B Mandal: Developed "Bioengineered Cardiac Patches" for heart tissue reconstruction. The research was published in Journal of Materials Chemistry B and highlighted in "The Hindu" National newspaper.
- xvii. Dr. Biman B Mandal: Developed affordable "Osteochondral Implants" for osteoarthritis management. The research was published in ACS Applied Materials and Interfaces and highlighted in Nature India and National newspaper of "The Hindu", "The Times of India", "Financial Express", "Deccan Herald",

“Zee News”, “India Today”, “Anandabazar Patrika”, and “Dainik Sambad”.

- xviii. Developed highly affordable and advanced “Bioengineered Bone Grafts” which allows better integration to defect site and simultaneous vascularization. The research was published in Advanced Healthcare Materials and highlighted in “The Hindu” National newspaper.
- xix. Dr. Biman B Mandal: Developed affordable “Smart Wound Healing Dressings” which heals diabetic foot ulcers in a scar free way. The research was published in Acta Biomaterialia and highlighted in “The Hindu” National newspaper, Nature India & Recommended by Faculty F1000 Prime.
- xx. Prof. Pranab Goswami and his group has developed a novel molecular technique using high resolution melting for species-specific differentiation of malaria parasites.
- xxi. Prof. Lingaraj Sahoo: A cowpea variety resistant to Yellow Mosaic Disease caused by MYMIV (Mungbean Yellow Mosaic India Virus) was developed through RNA interference technology. A mungbean variety with improved tolerance to salinity and resistance to herbicide was developed through overexpression of AtNHX1 and bar gene(s).
- xxii. Dr D Das: Development of a pilot scale facility for the ONGC Pan-IIT Centre for Bioenergy and the DBT-Unit of Excellence in Bioenergy. This pilot scale facility is a demonstration of biofuel production from microalgal Biomass in 100 L parallel plate photobioreactor; 1000 L photovoltaic airlift photobioreactor and open ponds (scaling up from 500 L to 1000 and 2000 L).
- xxiii. Dr Pranjal Chandra: The work “Highly Sensitive In Vitro Biosensor for Enterotoxigenic Escherichia coli Detection Based on ssDNA Anchored on PtNPs-Chitosan Nanocomposite” highlighted as “Ultrasensitive device to detect E Coli in 20 mins” in Nature India EISSN: 1755-3180, A newsletter of Nature Publication group.
- xxiv. Dr Pranjal Chandra: The work “Chitosan stabilized gold nanoparticle mediated self-assembled gliP nanobiosensor for diagnosis of Invasive Aspergillosis” highlighted as “Biosensor for detecting a fungal disease” in Nature India EISSN: 1755-3180, A newsletter of Nature Publication group.
- xxv. Prof. Rajaram Swaminathan: Proposed the role of photoinduced electron transfer in explaining electronic absorption (250–800 nm) arising from charged sidechains of amino acid residues like Lysine and Glutamate among proteins. Later showed that these spectra are sensitive changes in protein conformation and oligomeric state

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Prof. L. Rangan	National conference on Role of Women in Science and Technology	New Delhi	8-9 Mar 2018	National
Prof. L. Rangan	87th Annual Session of NASI and Symposium on Basic Research-Its Role in National Development	Pune	8-10 Dec 2017	National
Prof. L. Rangan	Sensitization workshop on “Technological Empowerment of Women”	IIT Guwahati	3-4 Nov 2017	National
Dr. Shankar Prasad Kanaujia	National Seminar on Crystallography (NSC-45)	IIT (BHU) Varanasi	9-12 Jul 2017	National
Prof. Vikash Kumar Dubey	International Conference on Advances in Biotechnology and Biotherapeutics (ICABBS-2017)	Sathyabama University, Chennai	8-10 Mar 2017	International
Prof. Vikash Kumar Dubey	Recent Advancements in Environmental Research (RAER-2017)	IIT Guwahati	5 June 2017	National
Prof. Vikash Kumar Dubey	1st International Conference on Biotechnology & Biological Sciences Biospectrum 2017	University of Engineering and Management, Kolkata	25-26 Aug 2017	International
Prof. Vikash Kumar Dubey	Emerging trend in Biotechnology for waste conversion (ETBWC 2017)	NEERI Nagpur, Maharashtra	8-10 Oct 2017	International

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Prof. Vikash Kumar Dubey	Annual Conference of Association of Microbiologists of India (AMI-2017) &	Dr. Bhimrao Ambedkar Univ., Lucknow	16-19 Nov 2017	International
Prof. Vikash Kumar Dubey	Emerging discoveries in Health and Agricultural Science	JNU, New Delhi	16-19 Nov 2017	National
Dr. Manish Kumar	Workshop on Laboratory Capacity Building for Leptospirosis	ICAR-NIVEDI, Bengaluru, JNU, New Delhi	14 Sep 2017	National
Dr. Manish Kumar	Opportunities and Challenges of Translational Research in the Frontier Areas of Animal Biotechnology, OUAT National seminar, Bhubaneswar	OUAT, Bhubaneswar	22-23 Sep 2017	National
Dr. Kusum K. Singh	9th RNA Group Meeting	Varanasi	26-28 Oct 2017	National
Dr. B. Anand	Young Investigators' Meeting (YIM) 2018	Thiruvanthapuram	5-9 Mar 2018	National
Dr. B. Anand	Inaugural symposium on Electron Cryo-microscopy in life sciences	NCBS-inStem, Bengaluru	24-25 Jan 2018	National
Prof. Rajaram Swaminathan	Biophysical Society, 62nd Annual Meeting	San Francisco, USA	17-21 Feb 2018	International
Dr. Biman B. Mandal	Asian Biomaterials Congress (ABMC)	Trivandrum	26 Oct 2017	International
Dr. Biman B. Mandal	2nd NanoBiotech International Conference	Trivandrum	8 Dec 2017	International
Dr. Biman B. Mandal	RBAT IV, International Conference	University of Kerala	24 Jan 2018	International
Dr. Biman B. Mandal	4th BSSE Annual Symposium	IISC Bangalore	25 Jan 2018	National
Dr. Biman B. Mandal	Annual conference, Indian Society for Dental Research (ISDR),	AIIMS, Delhi	2 Oct 2017	National
Dr. Biman B. Mandal	CME on Arthritis, Joint disorders and Tissue Engineering	NEIGRIHMS	2 Feb 2018	National
Dr. Anil M. Limaye	International Symposium on Emerging Areas in Biosciences and Biomedical Technologies (eBBT 2018)	IIT Indore	5-6 Jan 2018	National
Dr. Anil M. Limaye	World Cancer Congress Theme: Cancer in a new way: innovation, prevention, diagnosis and cure	Raytheon Healthcare	19-22 Sep 2017	National
Dr. Surajbhan Sevdia	Bioprocessing for energy and carbon from agro residues (BECAR)	IIT Mandi	23 Jan 2018	National
Prof. Lingaraj Sahoo	Convention on Biological diversity (CBD) and organization for Economic Cooperation and development (OCED) guidelines	DBT-AAU Center Jorhat	Feb 2018	National
Prof. Lingaraj Sahoo	Management of yellow mosaic disease in cowpea through RNA interference (7th DSI-Symposium of the DNA Society of India)	IASST, Guwahati	17 Nov 2017	National
Prof. Lingaraj Sahoo	New Age Agriculture-Learning from Nature	Gifu University, Japan	18 Dec 2017	International

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Prof. Lingaraj Sahoo	Improvement of Grain Legume Production: from genes to the field	Osaka Prefectural University, Japan	20 Dec 2017	International
Prof. Lingaraj Sahoo	Indo-Japan Bilateral Symposium on Future Perspective of Bioresource Utilization in North-Eastern Region	IIT Guwahati		
	1-4 Feb 2018	International		
Dr. Ranjan Tamuli	14th European Conference on Fungal Genetics (ECFG14)	Haifa, Israel	25-28 Feb 2018	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./ Org.	Place	Date
Dr. Ajaikumar B. Kunnumakkara	Role of Solute Carrier Proteins in the Development of Oral Squamous Cell Carcinoma	Guru Nanak Dev University	Amritsar	22 Mar 2018
Dr. Ajaikumar B. Kunnumakkara	Role of Different Isoforms of Akt kinase Oral Squamous Cell Carcinoma	Gujarat Cancer Research Institute	Ahmedabad	16-17 Mar 2018
Dr. Ajaikumar B. Kunnumakkara	Role of LCN2 in the Development of Oral Squamous Cell Carcinoma	Trivandrum Medical College	Kerala	9-10 Mar 2018
Dr. Ajaikumar B. Kunnumakkara	Fusion genes: Highly Specific Biomarkers for Cancer Diagnosis and Therapy	Tripura University	Agartala	27 Feb 2018
Dr. Ajaikumar B. Kunnumakkara	Different Isoforms of Akt and its Role in Oral Cancer	Indian Institute of Toxicological Research	Lucknow	21 Feb 2018
Dr. Ajaikumar B. Kunnumakkara	Role of NGAL in the Development of Oral Squamous Cell Carcinoma	TBRR, Banaras Hindu University	Varanasi	15 Feb 2018
Dr. Ajaikumar B. Kunnumakkara	Role of Different Isoforms of Akt kinase in the Development of Oral Squamous Cell Carcinoma	7th International Conference on Translational Cancer Research	Chennai	10 Feb 2018
Dr. Ajaikumar B. Kunnumakkara	Curcumin: a potential chemosensitizing agent for cancer cells	North East Cancer Hospital and Research Institute	Guwahati	2 Dec 2017
Dr. Ajaikumar B. Kunnumakkara	Novel Approaches in the Development of Drugs for Cancer Treatment	The City of Scientific Research and Technological	Alexandria, Egypt	11 Jul 2017
Dr. Ajaikumar B. Kunnumakkara	Potential of Nutraceuticals in the treatment of cancer	European Egyptian Pharmaceutical Ind. Co. (EEPI)	Egypt	10 Jul 2017
Dr. Ajaikumar B. Kunnumakkara	Nutraceuticals in the Prevention and Treatment of Cancer	Mansoura University	Egypt	5 Jul 2017
Dr. Ajaikumar B. Kunnumakkara	Recent developments in the molecular diagnosis of cancer and personalized cancer medicine	St. Joseph's College	Thrissur, Kerala	22 Jul 2017
Dr. P. Satpati	Breaking Barriers through Bioinformatics & Computational Biology	IIT Delhi	Delhi	17 Jul 2017

Name of Faculty	Name of Lecture	Name of Inst./ Org.	Place	Date
Prof. Kannan Pakshirajan	Bioprocessing for waste fed biorefineries	SASTRA	Thanjavur, Tamil Nadu	11-16 Dec 2017
Prof. Kannan Pakshirajan	Novel sulfidogenic bioreactors for metallic wastewater treatment	IIT Guwhati	Guwahati	9-11 Dec 2017
Prof. Kannan Pakshirajan	Chitosan production from Penicillium citrinum biomass for value addition and resource recovery from Industrial wastewater	Challenges in Environmental Science and Engineering, CESE-2017	Kunming, China	11-15 Nov 2017
Prof. Kannan Pakshirajan	Bioprocessing strategies for production of biofuels and value addition of waste water and waste sludge	Gifu University	Gifu, Japan	19-21 Dec 2017
Dr. Ranjan Tamuli	Molecular tools for genomics and proteomics research in fungi	Assam Agricultural University	Khanapara, Guwahati	21 Nov 2017
Dr. Lalit Pandey	Self Assembled Monolayers in biomaterials	North East Hill University	Shillong	22 Nov 2017
Dr. Navin Gupta	Biclustered Independent Component Analysis (B-ICA) for Complex Biomarker and Subtype Identification	Ravenshaw University	Odisha, Cuttack	29-31 Oct 2017
Prof. Rakhi Chaturvedi	Cellular Totipotency and Bioaccumulation Capabilities of Plant Cells using Plant Tissue Culture Techniques	The International Centre	Goa	5-7 Oct 2017
Prof. Rakhi Chaturvedi	Optimized micropropagation protocol to establish high-yielding true-to-type plantations of elite genotypes of Tinospora cordifolia for consistent production of therapeutic compounds	International Plant Propagators society (IPPS) Wilsonville, Oregon, US	Wilsonville, Oregon, US	17-20 Oct 2017
Prof. L. Rangan	Women Leaders in the New Era of Science and Technology	IIT Guwahati	Guwahati	3 Mar 2017
Prof. Rakhi Chaturvedi	In Vitro anther cultures of Camellia assamica (Masters) for haploid plant production and possibilities of accumulation of Catechins, Caffeine and Theophylline in them	North Carolina Biotechnology Centre	North Carolina, USA	10-14 Jun 2017
Prof. Rakhi Chaturvedi	In vitro anther culture and haploid plant production in Camellia species to generate homozygous plants with the possibilities of accumulation of bioactive metabolites.	IIT Guwahati	Guwahati	1-4 Feb 2018
Prof. Kannan Pakshirajan	Bioprocessing of biomass gasification wastes for production of biofuels and value added products	Adhiyamaan College of Engineering, Chennai	Chennai	6-7 Mar 2018
Prof. Vikash Kumar Dubey	Plenary lecture during Recent Trends in Structural Bio informatics and Computer Aided Drug Design" [SBCADD'2018]	Alagappa University	Karaikudi	21 Feb 2018
Prof. Utpal Bora	Biotechnology for a sustainable future	Bajali College	Pathshala	6 Mar 2018
Prof. Utpal Bora	Science and Technology for a sustainable future	Gauhati University	Guwahati	28 Feb 2018

Name of Faculty	Name of Lecture	Name of Inst./ Org.	Place	Date
Prof. Utpal Bora	Science and Technology for a sustainable future: Priorities for North East India	College of Veterinary Sciences	Khanapara	28 Feb 2018
Prof. Utpal Bora	Diversity of insect mitochondrial genomes	CMERTI	Lahdoigarh, Jorhat	12-13 Mar 2018
Dr. B. Anand	CRISPR-Cas System: From Genome Defence to Tinkering Genome	Rajiv Gandhi Centre for Biotechnology	Thiruvananthapuram	9 Mar 2018
Dr. B. Anand	Towards Mapping the Assembly Landscape of Ribosome	Tezpur University	Tezpur	25 Nov 2017
Dr. B. Anand	CRISPR-Cas System: From Genome Defence to Tinkering Genome	Institute of Advanced Study in Science and Technology	Guwahati	17 Nov 2017
Dr. B. Anand	Molecular Metamorphosis: Emergence of Specificity in a Promiscuous Nuclease during CRISPR Interference	Banaras Hindu University	Varanasi	26 Oct 2017
Prof. Rajaram Swaminathan	Transforming protein sequence and composition into numbers: A BIG DATA analysis tool for proteomes	Edinburgh International Conference Centre	Edinburgh, United Kingdom	18 Jul 2017
Dr. Lalit Pandey	Self-Assembled Monolayers In Biomaterials	North East Hill University	Shillong	22 Nov 2017
Dr. Lalit Pandey	Surface Modification/ Engineering In Biomedical Engineering	North East Hill University	Shillong	15-16 Mar 2018
Dr. Biman B. Mandal	Bioengineered Human Tissues	Sree Chitra Tirunal Institute for Medical Sciences and Technology	Trivandrum	25 Oct 2017
Prof. Pranab Goswami	Biofuel cell	NIT Raipur	Raipur	22 Jan 2018.
Prof. Pranab Goswami	Biofuel cell in a national conference on Non-Conventional Energy: Harvesting Technology and Its Challenges" (NEQIP)	Assam Engineering College	Guwahati	10 Nov 2017
Prof. Pranab Goswami	Biofuel cell: An Emerging Energy Technology in the Interface of Material-, Bio-, and Chemical-sciences in refresher course "Nano Science & Nano Technology"	Gauhati University	Guwahati	22 Mar-11 Apr 2017
Prof. Pranab Goswami	Biotechnology: Recent advances and future prospects	University of Science & Technology	Meghalaya	6 Sep. 2017
Prof. Pranab Goswami	Advances in biosensor research	Tezpur University	Tezpur	19 Mar 2018
Prof. Pranab Goswami	Frontier in biosensor research	NEHU	Shillong	27 Mar 2018
Prof. Arun Goyal	Recombinant chondroitin AC lyase (PsPL8A) from Pedobacter saltans and its applications in therapeutics and functional foods	Jiangnan University	Wuxi, China	21-24 May 2017
Prof. Arun Goyal	Therapeutic and functional food applications of chondroitin AC lyase (PsPL8A) from Pedobacter saltans	Panjab University	Chandigarh	21 Jul 2017

Name of Faculty	Name of Lecture	Name of Inst./ Org.	Place	Date
Prof. Arun Goyal	Emerging Trends in Protein Structures under Refresher Course entitled "Emerging Trends in Science & Technology"	Gauhati University	Guwahati	6 Nov 2017
Prof. Arun Goyal	In vitro synthesis of prebiotic isomaltoligosaccharides in Mango and Pineapple juices using dextransucrase from Weissella cibaria RBA12	IIT Kharagpur	West Bengal	18-20 De2017
Prof. S. S. Ghosh	Emergence of Cancer Nanotheranostics	IIT BHU	Varanasi	18-20 Jan 2018
Prof. S. S. Ghosh	Nanotheranostics: A new paradigm for targeted therapy and device	Institute of Advanced Study in Science and Technology	Guwahati	21 Nov 2017
Prof. S. S. Ghosh	Cancer theranostics	Netaji Subhas Institute of Technology	Delhi	9 Sep 2017
Dr. Pranjal Chandra	Development of Miniaturized Medial diagnostic Bio-sensing Prototypes	DBT Stake-holders Meeting to evolve a comprehensive Cancer Research program in NER	Guwahati	26-27 Oct 2017
Dr. Pranjal Chandra	Critical aspects in designing of electrochemical biosensors for their commercially viable applications In Refresher Course in Nano Science & Nano Technology	Gauhati University	Guwahati	22 Mar-11Apr 2017
Dr. Pranjal Chandra	Nanosensing strategies for point-of-care biomedical diagnostics	North Eastern Hill University	Shillong	15-16 Mar 2018
Dr. Debasish Das	Microalgae: Cell Factories for production of Bulk Chemicals and High Value Compounds	Himalaya Drug Company	Bengaluru	11 Jan 2018
Dr. Debasish Das	Microalgal Biotechnology and Production of Bulk Chemicals	String Bio Pvt. Ltd.	Bengaluru	12 Jan 2018

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANIZATIONS/INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Prof. D. N. Rao	IISc Bangalore	A Fine Balance between Genomic Integrity and Diversity in Helicobacter pylori: Natural Transformation vis-à-vis Restriction-Modification Systems	12 Apr 2017
Dr. Fardous F. El-Senduny	Mansoura University, Egypt	Approach for chemosensitization of chemotherapeutic-resistant cancer cells	21 Apr 2017
Prof. Carlos M. G. A. Fontes	Faculdade de Medicina Veterinária, Universidade de Lisboa, and NZYTech genes & enZYmes, Estrada do Paço do Lumiar, Lisboa, Portugal	Dynamic Versus Static Models of Cohesin-Dockerin Interaction	2 May 2017
Dr. Sudip Mondal	University of Texas	High-resolution optofluidic platforms for three-dimensional imaging of C. elegans	18 May 2017

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. Venuprasad K. Poojary	Baylor Institute for Immunology, Dallas	Ubiquitination in the regulation of inflammation and cancer	15 Jun 2017
Dr. Bhaswar Ghosh	Max Planck Institute for Terrestrial Microbiology, Germany	A systems biology approach to understand feedback design in a cellular signaling system	8 Jun 2017
Dr. Ashish Ganguly	Institute of Microbial Technology, Chandigarh	Basic Introduction to Bio-Molecular SAXS and Things which you CANNOT DO easily at synchrotron BUT AT HOME	29 Jun 2017
Dr. Surendra Ghaskadbi	Agharkar Research Institute, Pune	Cell-cell signaling in hydra: Insights into evolutionarily ancient functions of signaling pathways	12 Jul 2017
Dr. Gorachand Dutta	Michigan State University, USA	Ultrasensitive Enzyme-Free Self-Powered Engineered Device Based on Redox Cycling Amplification for Next Generation Point-of-Care Diagnostic Testing	13 Sep 2017
Dr. T. J. V. Higgins	Queensland University of Technology, Brisbane	Bt Cowpeas are protected against Maruca Podborers	21 Sep 2017
Prof. U. N. Das	UND Life Sciences, USA	Dogmas about health and disease	31 Oct 2017
Dr. Partho Sarothi Ray	Indian Institute of Science Education and Research, Kolkata	Signal Integration in Biological Systems: Combining Computational and Experimental Approaches to Decipher the Translation Regulatory Network Controlling p53 Expression in Response to DNA Damage	28 Nov 2017
Dr. Sankar Basu	University of Delhi	The Globular-Disordered Interface in Proteins: Addressing Molecular Evolution from Protein Design	8 Dec 2017
Dr. Ana M. L. Sousa	University of Strathclyde, UK	Plant-based polyphenols coatings for surface functionalisation	18 Dec 2017
Dr. Rahul Roy	IISc Bangalore	Microdroplet technologies for single cell and single molecule analysis	18 Dec 2017
Dr. Aswani K. Kancherla	John Hopkins University School of Medicine, USA	Understanding protein function via structure, dynamics and interactions: Cono-peptides to Non-Ribosomal Peptide Synthetases	23 Jan 2018
Dr. Sonali Bhattacharjee	Cold Spring Harbor Laboratory, NY, USA	Investigating the nexus between DNA repair pathways and genomic instability in cancer	25 Jan 2018
Dr. Jothir Pichaandi	University of Toronto, Fluidigm, Canada	Nanoparticle- Antibody Conjugates as High Sensitive Reagents for Mass Cytometry	14 Feb 2018
Prof. K. V. Venkatesh	IIT Bombay	Systems Engineering Perspective of Human Metabolism through a Multiscale Model for Disease Analysis: A Cell to Human Framework	9 Mar 2018

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International / National	No. of participants
Dr. Ajaikumar B. Kunnumakkara (Coordinator)	Workshop on Recent Advances in Cancer Research	Department of Biotechnology, Govt. of India	5-7 Mar 2018	National	20

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International / National	No. of participants
Dr. Ajaikumar B. Kunnumakkara (Advisor)	International Conference on Trends in Biochemical and Biomedical Research: Advances and Challenges (TBRR-2018)	-	13-15 Feb 2018	International	350
Dr. Ajaikumar B. Kunnumakkara (Co- ordinator)	Stake holders brainstorm meeting for Cancer Research program in NER 2017	Department of Biotechnology, Govt. of India	26-27 Oct 2017	National	50
Dr. Ajaikumar B. Kunnumakkara (Member: Organizing Committee)	3rd International Conference on Natural Products Utilization: From Plants to Pharmacy Shelf, Bansko, Bulgaria.	-	18-21 Oct 2017	International	400
Dr. Ajaikumar B. Kunnumakkara (Organizing secretary)	2nd "International Conference on Nutraceuticals and Chronic Diseases"	DBT, DST, ICMR	1-3 Sep 2017	International	300
Dr. Ajaikumar B. Kunnumakkara (Organizing secretary)	Indo-Japan Workshop on "Hope from Herbs: Research-based Care and Cure Potentials"	Department of Biotechnology, Govt. of India	8-9 May 2017	International	80
Dr. Navin Gupta	Summer School in Neuroimaging	DST	16-20 Jul 2017	International	500
Prof. R. Swaminathan, (Convener), S. Maiti (Co- Convener)	FCS2017: National Workshop on Fluorescence and Raman Spectroscopy	Tata Institute of Fundamental Research, Mumbai and the Fluorescence Society	17-21 Dec 2017	National	150
Prof. Latha Rangan	Sensitization Workshop On Technological Empowerment Of Women	National Academy of Sciences, Allahabad	3-4 Nov 2017	National	120
Dr. Sachin kumar	An Introductory Workshop on "Diagnostic Approaches In Virology"	-	6-7 Mar 2018	National	30
Dr. Bithiah Grace Jaganathan	Workshop On Molecular Diagnostics In Onco- Haematology	North East Chapter of Indian Society of Hematology and Transfusion Medicine	2 Nov 2017	National	26

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International / National	No. of participants
Prof. Swaminathan (Convener), Dr. Shirisha Nagotu (Co-ordinator)	Advanced Imaging and Microscopy Techniques	Organized by DSS Imagetech Pvt Ltd, Olympus Medical Systems India Pvt Ltd & supported by Indian Institute of Technology	18-20 Apr 2017	National	25
Prof. Lingaraj Sahoo	Hands on workshop on “ Gene Expression and Functional Analysis for Crop Improvement”	DBT	16-20Jan 2018	National	15
Prof. Lingaraj Sahoo	Translational Agriculture- Avenues for International Cooperation	Jointly organized by DBT Program support center, IIT Guwahati and Gifu University Japan	29 Mar 2017	International	80
Prof. Lingaraj Sahoo (Co- ordinator)	Indo-Japan Bilateral Symposium on Future Perspective of Bioresource Utilization in North- Eastern Region	Jointly organized by IIT Guwahati and Gifu University, Japan	1-4 Feb 2018	International	180
Dr Debasish Das (Organizing Secretary)	Bioprocessing India 2017	NEC, DBT, DST, CSIR, ONGC, Reliance, Biojenik Engineering, Anthem Biosciences, Sartorius, Takara, Spectrochem Instruments Pvt. Ltd., Biocon	9-11 Nov 2017	International	330

PATENTS

- Inventors: Vibin Ramakrishnan, Gaurav Pandey, Harshal B. Nemade, Jahnu Saikia, Sajitha S, & Nitin Chaudhary. Patent No. TEMP/E-1/25296/2017-KOL. Dated 13.07.2017
- Inventors: Senthilkumar Sivaprakasam, Baskaran Anand, Srikanth Katla, K.N.R. Yoganand; production of glycosylated human interferon alpha 2b in glycoengineered pichia pastoris. Granting Agency: Controller General of Patents, Designs & Trade Marks,

The Patent Office, Kolkata; Application Number: E-2/21/2018/KOL; Date: 15 January 2018; Status: Patent Filed

- Inventors: Mukherjee, S., Das, G, and Ramesh, A. Indian Patent Application No. 201831001543. Title: Gastric fluid-resistant proteinaceous nanocomposite for mitigation of gastrointestinal pathogenic bacteria. Applied date: 13/01/2018.
- Iyer PK, Dey A, Singh A, Dutta D, Ghosh SS (2018). An ultra-low voltage operated organic field effect transistor

(OFET) based bio-sensing system and a method for fabricating the same, Patent: 201831000478.

- v. Chattopadhyay A, Sailapu SK, Dutta D, Ghosh SS, Simon AT (2017). Wirelessly Operated LED Device for Photodynamic Therapy and Subsequent Monitoring Of Therapeutic Success, Application No: 201731031603.
- vi. Debasish Das, Mayurketan Mukherjee, Saumya Ahlawat, Mehak Kaushal, Gargi Goswami. Improved culture media for butanol synthesis using Clostridium acetobutylicum ATCC 824. Date Applied/Granted-10/08/2017; Application No. 201731028507
- vii. Debasish Das, Mehak Kaushal, Saumya Ahlawat Gargi Goswami. Method for production of biofuels by fermentation of a sugar bearing medium. Date Applied/Granted-18/01/2018; Application No. 201831002144

AWARDS AND HONOURS

- i. M. Das and S. Kumar (2017) "Independent evolution of genotype xiii Newcastle disease viruses from India: a panzootic threat" talk on the "National Seminar on Opportunities and challenges of translational research in the frontier areas of Animal Biotechnology and V Annual Convention of SVSBT". (SVSBT) at OUAT 23rd and 24th September (Best Oral Award).
- ii. Barnali Nath and Sachin Kumar (2017) "Improved Japanese encephalitis virus vaccine using recombinant Newcastle disease virus as a vector" VIROCON 2017, 26th National Conference of Indian Virological Society (IVS) at Nitte University, Mangalore, India, December 7- 9, 2017. (2nd best Poster Presentation, Medical Virology Section)
- iii. R. Kumar, V. Kumar, P. Kekungu and S. Kumar (2018) "Diagnostics and vaccine development of classical swine fever virus based on recombinant Newcastle disease viral vector" at the Indian Association of Veterinary Microbiologists, Immunologists and Specialists in Infectious Diseases (IAVMI) in Sri Venkateswara Veterinary University (SVVU), Tirupati. 29-31st Jan 2018. (Best poster award)
- iv. Latha Rangan, FNASc, Elected Fellow National Academy of Sciences Allahabad 2017
- v. Prof. V. K. Dubey: Elected as FRSB (Fellow, Royal Society of Biology, United Kingdom): 1 January 2018 onward.
- vi. Prof. V. K. Dubey: Member, Board of Governors (April 2017 onward), The Biotech Research Society of India (BRSI).
- vii. Prof. V. K. Dubey: Vice President, Bioinformatics and Drug Discovery Society [BIDDS] (July 2017 onward)
- viii. Prof. V. K. Dubey: Prize for Biomedical Research Conducted in Underdeveloped areas-2016 by Indian Council for Medical Research, Government of India
- ix. Prof. Utpal Bora is honored with the Title of Vice President for the "Association for Promotion of DNA

Fingerprinting and other DNA Technologies (ADNAT)" for the duration 2018 onwards.

- x. Dr. Surajbhan Sevdia: Won international travel award from Shastri Indo-Canadian Institute to attend international conference in Canada.
- xi. Kusum K. Singh: DBT-NER Overseas Associateship
- xii. Dr. Lalit Pandey IET Young Engineers Award 2017-2018 by Institution of Engineers (India) in Environment Engineering Discipline
- xiii. Professor Pranab Goswami has received Outstanding Contribution in Reviewing Awarded in January 2018 in recognition of his Contributions made to the quality of the journal Biosensors and Bioelectronics by the Editors of Biosensors and Bioelectronics, Elsevier, Amsterdam, The Netherlands.
- xiv. Professor Pranab Goswami was felicitated with Guest of Honor in the inaugural meeting of the workshop on Finishing School (19-24 Mar 2018) by the organizing committee at Tezpur University.
- xv. Nominated as a member of Scientific Advisory Council (SAC) of IASST, Guwahati for tenure of 3 years (2017 to 2020).
- xvi. Prof. Arun Goyal: "Excellence in Carbohydrate Research (ECR) Award-2017" by Association of Carbohydrate Chemists and Technologists, India, in recognition of outstanding contribution in the area of Structure and functions of carbohydrates and carbohydrate enzymes. The Award carrying a plaque, certificate and a cash prize of Rs. 30000/- offered by Sunita Hydrocolloids Pvt. Ltd., Jodhpur, was conferred during CARBO-XXXII Conference at Indian Institute of Technology Kharagpur, Dec 18-20, 2017.
- xvii. Prof. Arun Goyal: Elected as Executive member, Association of Carbohydrate Chemists and Technologists (India), ACCT (I) 18, Nov 2017 for two years.
- xviii. Prof. Arun Goyal: Invited as "Member Expert Committee" of NER Twinning RnD program of NERBPMC, Nov 17, 2017.
- xix. Prof. Arun Goyal: DST Award for participation in 24th International Union of Crystallography Congress (IUCr2017), 21-28 August 2017, Hyderabad, India
- xx. Prof. Arun Goyal: Invited to chair a session in 7th International Forum on Industrial Bioprocessing (IFIBiop 2017), May 21-24, Wuxi, China.
- xxi. Prof. Arun Goyal: Invited by DBT, Ministry of Science and Technology under Mission Innovation Program for "International Conference on Sustainable Biofuel 2018" on February 26-27, 2018 at New Delhi, India.
- xxii. Prof. Arun Goyal: Invited as "Member Expert Committee" of NER Twinning RnD program of NERBPMC, Feb 19-20, 2018.
- xxiii. Dr. Pranjal Chandra: Visiting Professor / Scientist at

the Institute of Biophysio Sensor Technology, Pusan National University, South Korea, May-June 2017

STUDENTS' ACHIEVEMENTS

- i. Ishani Chakrabartty received 1st prize in Oral presentation during Indo-Japan Bilateral Symposium for Future Perspectives of Bioresource Utilization in North East India (IJBS'17) held at IIT Guwahati from 1st-4th February 2018 for her paper titled "Alpinia nigra: The unexplored ore of Zingiberaceae for future therapeutics". (Springer award included 200 Euros).
- ii. Ishani Chakrabartty received 1st Prize in Best Poster Category in Translational Research on Natural Products for Therapeutic Uses (TRNPTU), held at IASST Guwahati on 21st November 2017 for her poster titled "Viability assessment of bacteria under the treatment of (E)-labda-8(17), 12-diene-15, 16-dial, a bioactive compound from the seeds of Alpinia nigra".
- iii. Sajitha secures third position in oral presentation entitled "Hybrid Magnetic Organic –Inorganic Nanoadsorbents for Sequestration of Chromium" under the theme "Diverse applications", held at IIT Roorkee during 06-08 December 2017.
- iv. Mr. Angshu Dutta (Roll No.: 166106020), a PhD student at the Department of Biosciences and Bioengineering, IIT Guwahati received BEST POSTER AWARD at Research Conclave – 2018, IIT Guwahati.
- v. Ms. Prerana Gogoi (Roll No.: 126106035) a PhD student at the Department of Biosciences and Bioengineering, IIT Guwahati received BEST POSTER AWARD at National Seminar on Crystallography (NSC-45), IIT (BHU) Varanasi, India.
- vi. Hasnahana Chetia and Debajyoti Kabiraj won partial scholarship to attend Nextgen Genomics, Biology, Bioinformatics & Technology Conference at Bhubaneswar, Odisha (NGBT, October 2-4, 2018).
- vii. Best Oral Presentation Award received by Devivasha Bordoloi at the International Conference on Trends in Biochemical and Biomedical Research, Varanasi, India, February 13-15, 2018.
- viii. Best Poster Presentation Award received by Ganesan Padmavathi at the 7th International Conference on Translational Cancer Research, Chennai, India, February 8-11, 2018.
- ix. Best Oral Presentation Award received by Devivasha Bordoloi at the 5th AIST International Imaging Workshop held at Biomedical Research Institute, Tsukuba Science city, Japan, January 21-30, 2018.
- x. Best Oral Presentation Award received by Javadi Monisha at the International Conference on Nutraceuticals and Chronic diseases 2016 (INCD-2016), Goa, India, September 1-3, 2017.
- xi. Best Poster Presentation Award received by Nand Kishor Roy at the International Conference on Nutraceuticals and Chronic diseases 2016 (INCD-2016), Goa, India, September 1-3, 2017.
- xii. Best Oral Presentation Award received by Ganesan Padmavathi at the International Conference on Nutraceuticals and Chronic diseases 2016 (INCD-2016), Goa, India, September 1-3, 2017.
- xiii. Best Oral Presentation Award received by Devivasha Bordoloi at the International Conference on Nutraceuticals and Chronic diseases 2016 (INCD-2016), Goa, India, September 1-3, 2017.
- xiv. Best Poster Presentation Award received by Anuj Kumar Singh at the International Conference on Nutraceuticals and Chronic diseases 2016 (INCD-2016), Goa, India, September 1-3, 2017.
- xv. Best Poster Presentation Award received by Bethsebie Laldusaki Sailo at the International Conference on Nutraceuticals and Chronic diseases 2016 (INCD-2016), Goa, India, September 1-3, 2017.
- xvi. Best Poster Presentation Award received by Amrita Khwairakpam Devi at the International Conference on Nutraceuticals and Chronic diseases 2016 (INCD-2016), Goa, India, September 1-3, 2017.
- xvii. Best Poster Presentation Award received by Kishore Banik at the International Conference on Nutraceuticals and Chronic diseases 2016 (INCD-2016), Goa, India, September 1-3, 2017.
- xviii. Best Oral Presentation Award received by Harsha Choudhary at the International Conference on Nutraceuticals and Chronic diseases 2016 (INCD-2016), Goa, India, September 1-3, 2017.
- xix. Best Poster Presentation Award received by Shabnam Bano at the International Conference on Nutraceuticals and Chronic diseases 2016 (INCD-2016), Goa, India, September 1-3, 2017.
- xx. Best Poster Presentation Award received by Shubhrajyoti Das at the International Conference on Nutraceuticals and Chronic diseases 2016 (INCD-2016), Goa, India, September 1-3, 2017.
- xxi. Best Poster Presentation Award received by Minakshi Sarma at the International Conference on Nutraceuticals and Chronic diseases 2016 (INCD-2016), Goa, India, September 1-3, 2017.
- xxii. Best Poster Presentation Award received by Mayur Chhoriya at the International Conference on Nutraceuticals and Chronic diseases 2016 (INCD-2016), Goa, India, September 1-3, 2017.
- xxiii. K. N. R. Yoganand, a PhD student in BSBE, won prize for Best Oral Presentation in Research Conclave 2018, IIT Guwahati.
- xxiv. Ms. G. Janani (PhD student, 2015) selected for prestigious Fulbright Nehru Doctoral Research

- Fellowship 2018. Janani will be visiting USA for 09 months (starting July 2018) and pursued research work at McGowan Institute, Pittsburg University with Prof. Stephen Badylak on "Bioartificial Liver".
- xxv. Ms. Shreya Mehrotra (PhD student, 2013) awarded prestigious Fulbright Nehru Doctoral Research Fellowship 2017. Shreya visiting USA for 09 months (September 2017-June 2018) and pursued research work at MIT-Harvard University with Prof. Ali Khademhosseini on "Bioartificial Cardiac Patch".
- xxvi. Mr. Prerak Gupta (PhD student, 2013) awarded prestigious Fulbright Nehru Doctoral Research Fellowship 2017. Prerak visiting USA for 09 months (September 2017-June 2018) and pursued research work at Pittsburg University with Prof. David Vorp on "Bioartificial Blood Vessels".
- xxvii. Best Innovation Award to Bibhas K. Bhunia at Assam Biotech Conclave, organized by Guwahati Biotech Park. 2017
- xxviii. Best Innovation Award to Dimple Chauhan at North-East Biostart- Innovation and talent search contest, organized by Guwahati Biotech Park.
- xxix. Rishikesh Shukla: Young Scientist Award, SBCI: Received Young Scientist Award at 86th Annual Meeting of Society for Biological Chemists, India, Nov. 16-19, 2017 Jawaharlal Nehru University, New Delhi, India.
- xxx. Arun Dhillon: Best Poster Award: Rgl-CBM35 of family 35 Carbohydrate Binding Module (CBM) from *Clostridium thermocellum* represents first CBM targeting rhamnogalacturonan I and mediating binding by two sites. 23rd INPEC (International Network of Protein Engineering Centers) Meeting Protein Structure, function and Engineering, 9-11 Nov 2017, Bose Institute, Kolkata.
- xxxi. Neha Arora, Student Travel Award for Poster presentation, 5th Nano Today Conference, PEGylated Silver Nanoclusters Mediated Cytosolic Delivery of Tumor Suppressor Protein PTEN to Modulate in vitro Cellular Signalling, 6th December 2017.
- xxxii. Neha Arora, ACS Poster presentation Award, ICANN IIT Guwahati, Understanding Therapeutic Potential of PEGylated Silver Nanoclusters Loaded Recombinant PTEN, 19th December 2017.
- xxxiii. Deepanjalee Dutta, Indian Society of Nano medicine-BC best poster award, NanoBiotech'17 Trivandrum, Bimetallic Au-Ag Nanoclusters embedded Cationic BSA nanocarrier for Bioimaging and Suicide gene therapy of HeLa cancer cells, 8th December 2017.
- xxxiv. Deepanjalee Dutta, RSC Poster Award for poster presentation, ICANN IIT Guwahati, Bimetallic Au-Ag nanoclusters embedded nanocarrier for bioimaging and suicide gene therapy of HeLa cancer cells, 19th December 2017.
- xxxv. Deepanjalee Dutta, Best Research Proposal (2ND Position), Smartphone based portable device for photodynamic therapy and colorimetric assays, North East Biostart 2018, Guwahati Biotech Park, 5th April 2018.
- xxxvi. Payel Sarkar achieved Best Poster award (Metabolic Engg and Systems Biology) at Bioprocessing India 2017 held at IIT Guwahati.
- xxxvii. Mayurketan Mukherjee achieved Best Poster award (Biofuels and Bioenergy) at Bioprocessing India 2017 held at IIT Guwahati.
- xxxviii. Avishek Roy, a Ph D student, received Best Poster Presentation Award for the poster presentation titled "Role of calcineurin B (CNB-1) RIP mutants in stress tolerance, circadian rhythm and probable interaction with calcium proton exchanger (CAX) regulating cell functions in *Neurospora crassa*" by Roy A and Tamuli R, at the National Conference on Fungal Biology: Recent Trends and Future Prospects and 44th Annual meeting of the Mycological Society of India (MSI), University of Jammu, Jammu, India, November 16-18, 2017.
- xxxix. Christy Noche K Marak, a Ph D student, received Best Poster Presentation Award for the poster presentation titled "Calmodulin and calcium/calmodulin dependent kinases are important for normal growth and development in *Neurospora crassa*" by Marak K CN and Tamuli R, at the Research Conclave, IIT Guwahati, India, March 8-11, 2018.
- xl. Darshana Baruah, a Ph D student, received Best Poster Presentation Award for the poster presentation titled "Understanding the role of PLC- δ , sPLA2 and CPE-1 in regulating various cellular processes in *Neurospora crassa*" by Baruah D and Tamuli R, at the Research Conclave, IIT Guwahati, India, March 8-11, 2018.

SPECIAL MENTION

- i. Dr. Ajaikumar B. Kunnumakkara: Executive Secretary: Society for Nutraceuticals and Chronic Diseases
- ii. Dr. Ajaikumar B. Kunnumakkara: Executive committee member: Society for Translational Cancer Research
- iii. Dr. Ajaikumar B. Kunnumakkara: Coordinator: DBT-AIST International Laboratory for Advanced Biomedicine (DAILAB) at IIT Guwahati
- iv. Dr. Ajaikumar B. Kunnumakkara: Three students from my laboratory Devivasha Bordoloi, Harsha Choudhary and Padmathi Ganesan was selected for a training program at Biomedical Research Institute, AIST Japan during January 20-30, 2018.
- v. Prof. Pranab Goswami served as PhD thesis examiner at Department of Chemistry, Gauhati University.
- vi. Prof. Pranab Goswami served as PhD thesis examiner

vii. at Department of Biotechnology, NIT Raipur.
Dr. Pranjal Chandra served as PhD thesis examiner of School of Material Science and Engineering at the Indian Institute of technology (BHU), Varanasi, India

viii. Laxmi V, Tamuli R (2017). Calmodulin is necessary for vegetative growth, ultraviolet survival, and sexual development in the model filamentous fungus *Neurospora crassa*. Arch Microbiol. 2017 May. <http://atlasofscience.org/>

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1.	B., Anand	Indian Institute of Technology Kanpur	Associate Professor	Structural Biology, Bioinformatics & Computational Biology, RNA Biology, Molecular Evolution and Synthetic Biology
2	Bora, Utpal	Institute of Genomics and Integrative Biology, Delhi	Professor	Biomedical Engineering, Biodiversity and Bio-entrepreneurship
3	Bose, Biplab	All India Institute of Medical Sciences	Associate Professor	Systems Biology, Cell signaling, Recombinant therapeutics
4	Chanda, Souptick (From 02.05.2017)	Indian Institute of Technology Kharagpur, India	Assistant Professor	Biomechanics, implant design and optimization, surgical simulations and soft computing
5	Chandra, Pranjal	Pusan National University, Busan, South Korea	Assistant Professor and Ramanujan Fellow	Clinical Diagnostics (Cancer cells, DNA, RNA, bio-markers), Nano-biosensors (Aptamer, antibody, enzyme) based biological phenomenon investigation, Porous silicon based label free self reporting optical nanosensors, Microfluidics and Nanomachines
6	Chaturvedi, Rakhi	University of Delhi, Delhi	Professor	Plant Cell, Tissue & Organ Culture, Protoplast Isolation and Regeneration, Isolation, Purification and Characterization of Plant Secondary Metabolites
7	Chaudhary, Nitin	CSIR-Centre for the cellular and Molecular Biology, Hyderabad	Associate Professor	Peptide self-assembly and amyloid aggregates, Peptide-membrane interactions Curvature inducing proteins
8	Das, Debasish	Indian Institute of Technology Bombay	Associate Professor	Metabolic engineering, Biochemical engineering, Modelling of fermentation process, Biofuel
9	Dasu, V. Venkata	Indian Institute of Technology Madras	Professor	Bioprocess Development, Metabolic Engineering
10	Dubey, Vikash Kumar	Banaras Hindu University	Professor	Biochemistry, Molecular Parasitology, Drug Discovery
11	Ghosh, Siddhartha S.	Indian Institute of Chemical Biology (IICB), Kolkata	Professor	Cancer Gene Therapy, Nanobiotechnology, Molecular Pathways Involving Drug Resistance
12	Goswami, Pranab	Gauhati University	Professor (HAG)	Biosensors and Biofuel cells
13	Goyal, Arun	Indian Institute of Technology Kanpur, Kanpur	Professor	Molecular Biology, Protein Engineering, Structural and Functional Proteomics of Carbohydrate active enzymes and other industrially important microbial enzymes

Sl. No.	Name	PhD	Designation	Areas of Interest
14	Gupta, Navin	Brain Computer Interfaces and Neural Engineering (BCI-NE) Group, University of Essex	Assistant Professor	Imaging Genetics, Biomedical Signal/Image Processing, Multimodal Analysis, Computer Aided Diagnosis, Biomedical Instrumentation
15	Jaganathan, Bithiah G.	Johann Wolfgang Goethe University, Frankfurt, Germany	Associate Professor	Stem Cell Biology, Cancer signaling
16	Kanaujia, Shankar Prasad	Indian Institute of Science Bangalore	Associate Professor	Structural Biology and Bioinformatics Studies
17	Kobayashi, Y. (Upto 26.06.2017)	United Graduate School of Agriculture, Gifu University	Visiting Assistant Professor	Agricultural Chemistry, plant Biotechnology
18	Kumar, Manish	University of Maryland, College Park, USA	Associate Professor	Molecular interaction of host-pathogen-vector of infectious diseases
19	Kumar, Sachin	University of Maryland, College Park, USA	Associate Professor	Molecular biology of paramyxoviruses
20	Kunnumakkara, A. B.	University of Calicut, Kerala	Associate Professor	Role of inflammatory pathways in cancer development, Identification of novel biomarkers for cancer diagnosis and prognosis, Cancer drug discovery, Development of transgenic and gene knockout mouse models for biomedical research
21	Limaye, Anil Mukund	Indian Institute of Science Bangalore	Associate Professor	Hormonal regulation of gene expression
22	Maiti, Soumen Kumar	Indian Institute of Technology Bombay	Assistant Professor	Bioprocess Engg, biofuel
23	Mandal, Biman B.	Indian Institute of Technology Kharagpur	Associate Professor	Cell based tissue engineering, Biomaterials, Stem cells, Drug delivery systems
24	Nagotu, Shirisha	University of Groningen, Groningen, The Netherlands	Assistant Professor	Organelle biology and Inter-organelle communication, Cellular Ageing, Membrane fission and fusion
25	Pakshirajan, Kannan (Head of the Department)	Indian Institute of Technology Madras	Professor	Environmental Technology
26	Pandey, Lalit Mohan	Indian Institute of Technology Delhi	Assistant Professor	Surface and interfacial science particularly in the area of Bio-interfaces and Biomaterials Protein's adsorption and aggregation, Environmental Biotechnology
27	Patra, Sanjukta	Central Food Technological Research Institute, Mysore	Associate Professor	Enzymes-applications in pharma and food industry

Sl. No.	Name	PhD	Designation	Areas of Interest
28	Rajkumar, P. Thummer	University of Groningen, Groningen, The Netherlands	Assistant Professor	Stem Cell Engineering and Regenerative Medicine
29	Ramakrishnan, Vibin	Indian Institute of Technology Bombay	Associate Professor	Computational Biology, Bioinformatics, Biophysics, Bio-Organic Chemistry, Bio-nanotechnology
30	Ramesh, Aiyagari	CFTRI, Mysore (Degree awarded by Mysore University)	Professor	Nanobiotechnology, Chemistry-Biology Interface for Developing Antibacterials and Sensors
31	Rangan, Latha	University of Madras (Research work carried at IRRI, Manila)	Professor	Molecular systematics, Biofuel, IPR
32	Sahoo, Lingaraj	Maharshi Dayanand University, Rohtak	Professor	Genetic engineering and functional genomics of plants
33	Saini, Gurvinder Kaur	Andhra University, Visakhapatnam	Professor	Fungal Biotechnology, Biological Control, DNA fingerprinting and Transformation studies, Studies on extracellular enzymes and toxic metabolite production, Development of a potent biopesticide
34	Satpati, Priyadarshi	Indian Institute of Science Bangalore	Assistant Professor	Classical molecular dynamics (MD) free energy simulation, Electronic Structure calculations that predict the structure, properties, reactivity, bonding etc. of small molecules
35	Selvaraju, Narayanasamy (From 24.04.2017)	Indian Institute of Technology Madras	Assistant Professor	Environmental Biotechnology, Bioprocess Engineering, Biochemical Engineering
36	Singh, Kusum K.	Institute of Molecular Medicine, Heinrich-Heine University of Duesseldorf, Germany	Assistant Professor	Post-transcriptional gene regulation by RNA binding Proteins
37	Sivaprakasam, S.	Central Leather Research Institute, Chennai	Associate Professor	Biocalorimetry, BioPAT, Real-time monitoring and control of bioprocess systems
38	Sukumar, P. (Upto 01.09.2017)	University of Leeds	Assistant Professor	Smooth muscle and endothelial cell function, Cardiovascular Diseases, Diabetes and Obesity
39	Swaminathan, Rajaram	Tata Institute of Fundamental Research, Mumbai	Professor	Intrinsically Disordered Proteins, Protein Aggregation
40	Tamuli, Ranjan	CSIR-Centre for the cellular and Molecular Biology, Hyderabad	Associate Professor	Calcium signaling, Genetics, DNA repair
41	Trivedi, Vishal	Central Drug Research Institute, Lucknow	Associate Professor	Intracellular Signaling in Plasmodium falciparum

DEPARTMENT OF CHEMICAL ENGINEERING

The Department at a Glance

Year of Establishment: 2002

Academic Programmes Offered:

Bachelor of Technology (BTech) in

- o Chemical Engineering

Master of Technology (MTech) in

- o Petroleum Science and Technology (PST),
- o Material Science and Technology (MST)

Doctor of Philosophy (PhD)

Total Faculty Strength: 34

- Professor: 13
- Associate Professor: 13
- Assistant Professor: 8

Total Student Strength: 523

BTech: 252

MTech: 86

PhD: 185

New Students Joined in 2017-2018: 145

BTech: 71

MTech: 39

PhD: 35

LABORATORY FACILITIES**Undergraduate Laboratories: 7**

- o Fluid Mechanics Lab: Flow through Fluidized Bed, Centrifugal Pump Test Rig, Flow through Helical Coil, Nozzle Meter Test Rig, Packed Bed, Pitot Tube, Rotameter Test Rig, Drag Co-efficient Apparatus, Reynolds's Apparatus, Notch Tank Apparatus, Impact of Jet on Vane Apparatus, Reciprocating Pump Test Rig, Bernoulli Apparatus, Flow Meter Demonstration Rig, Energy Losses In Pipes, Energy Losses In Bends.
- o Mechanical Operation Lab: Ball mill, Froth floatation cell, Hammer mill, Jaw crusher, Roll crusher, Plate and frame filtration, Rotary drum Vacuum filter, Vibrating screen, Sieve shaker, Cyclone separator, Cyclone Scrubber, Elutriator, Sedimentation, Leaf Filter.
- o Heat Transfer Lab: Extended Surface heat exchanger, Tubular heat exchanger, Jacketed vessel heat exchanger, Plate heat exchanger, Shell and tube heat exchanger, Emissivity measurement apparatus, Composite wall, Conductivity of metal rod, Calandria evaporator, Vertical & horizontal condenser, Unsteady state heat transfer, Heat transfer in forced convection, Multi effect evaporator.
- o Mass Transfer Lab: Double glass wall distillation apparatus, Bubble cap distillation set up, Packed bed distillation set up, Mass transfer with and without chemical reaction, Liquid-liquid extraction in packed bed, Solid - liquid extraction in packed bed, Absorption in packed bed, Vapour in air diffusion, Rotary drier, Forced Draft tray drier, Water cooling tower. Batch crystallization.
- o Process control Lab: Two Tank Non-Interacting System, Two Tank Interacting System, Control Valve Characteristics, Temperature Control Trainer, Pressure Control Trainer, Flow Control Trainer, Level Control Trainer, Cascade Control Trainer, First-Order and Second-Order System, Multi Process Trainer, Multi Variable Control Trainer, PLC Trainer.
- o Thermodynamics Lab: Vapour - liquid equilibrium apparatus, Liquid - liquid equilibria, Equilibrium Flash Distillation Apparatus, Separating & Throttling Calorimeter.

Postgraduate Laboratories: 1

- o Petroleum Lab: Acidity and Alkalimetry, Aniline point, Burning test lamp, Cloud & Pour Point, Flash & Fire Point, Melting point apparatus, Red wood Viscometer, Reid vapour pressure, Smoke point, U-Tube Viscometer, ASTM Distillation, Kinematic Viscometer bath, Drop point grease apparatus, Burning quality of kerosene, Contamination detector, Tar viscometer, Softening point apparatus, Carbon residue apparatus, Bomb calorimeter, Vapour – Liquid Equilibrium, Steam Distillation, Digital Penetrometer.

Other Laboratories: 2

- o Analytical Lab: Atomic absorption spectrophotometer, Autotitrator, BET surface area analyzer, Buchi rheometer, Chemisorb surface area analyzer, Differential scanning calorimeter, Digital polarimeter, Ellipsometer, Fourier Transform Infrared spectrophotometer, Gas chromatography with TCD, FID, ECD detector, Gas chromatography with TCD, FID, PPFD detector, Gas chromatography-Mass spectroscopy, High performance liquid chromatography, Interfacial rheometer, Karl Fisher titrator, Laser particle size analyser, Microscope, Millipore water purification, Refractometer, Rheometer, Spinning drop tensiometer, Tensiometer, Thermogravimetric analyzer, Total organic content analyzer, UV-Visible spectrophotometer, X Ray diffraction, Zeta potential
- o CoE-SusPol: Centre of Excellence for Sustainable Polymers (CoE-SusPol) is funded by Department of Chemicals and Petrochemicals, Ministry of Chemicals and Fertilizers. The objective of CoE-SusPol is to develop cost effective and scalable technologies for the production of biodegradable polymer based end products using both petrochemical and renewable bio- feedstock and establish state of the art facilities in biodegradable polymers area. Both experimental and computational laboratory has been setup under this project facility and significant high-end equipments have been purchased in the department.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

- Mercury Intrusion Porosimeter
- BET Surface Area Analyser

MAJOR AREAS OF RESEARCH AND DEVELOPMENT:

- **Fluids**
 - o Design and development of micro-pumps and actuators
 - o Surfactant Enhanced oil recovery
 - o Experimental and computational fluid dynamics
 - o Experimental and computational multiphase flows
 - o Field driven fluid flows
 - o Mechanics, patterns, and stability of fluids
 - o Micro- and nano-fluidic devices
 - o Minerals processing
 - o Multi scale bubble dynamics and applications
 - o Rheology of complex fluids
 - o Transport through meso-porous materials
- **Reaction Engineering**
 - o Catalysis electrolysis and Heterogeneous reactions
 - o Electrochemical corrosion
 - o Electroless plating
 - o Hydrocarbon processing
 - o Interfacial reactions

- o Kinetic analysis
- o Micro- and nano-fluidic reactors
- o Non-equilibrium reactive systems
- o Pyrolysis of waste plastics
- o Separations with chemical reaction
- o Sono-process engineering
- **Chemical Engineering Science**
 - o Biological physics
 - o Chemical mechanical polishing (CMP)
 - o Colloids and interfacial science
 - o Dewetting and phase separation
 - o Phase equilibria and thermodynamics
 - o Phase equilibria of ionic liquids
 - o Phase transition in polymers (nucleation, crystallization, collapse transition)
 - o Structure property relations
 - o Super-hydrophobic and self-cleaning surfaces
- **Environmental Pollution Control**
 - o Air pollution
 - o Biological wastewater treatment (biosorption, bioaccumulation, biodegradation, bioreduction, biotransformation)
 - o Electro remediation of water/wastewater
 - o Membrane bioreactors
 - o Physiochemical water/ wastewater treatment techniques
 - o Screening of novel microbial strains for treatment of organic/inorganic wastewater
 - o Sonolysis and Sono-hybrid Advanced Oxidation techniques
 - o Treatment of industrial effluent
 - o Pollution trading
- **Process Systems Engineering**
 - o AI based Optimization Techniques
 - o Computational transport processes
 - o Deterministic, evolutionary and global optimization
 - o Material processing
 - o MEMS & NEMS
 - o Molecular simulation
 - o Optimization and control
 - o Planning and scheduling
 - o Process control
 - o Process design & techno-economics
 - o Process intensifications
 - o Process modelling
 - o Randomized algorithms
 - o Self-assembly and self-organization
 - o Soft lithography
- o Statistical mechanics and thermodynamics
- **Materials Engineering**
 - o Bio-lubricant
 - o Complex organic solids
 - o Functional multiscale structures & composites
 - o Graphene synthesis and application
 - o Ionic liquids
 - o Liquid crystalline materials
 - o Low cost ceramic membranes
 - o Micro- and nano-sensors
 - o Non-Newtonian Fluids
 - o Palladium membranes
 - o Reactive systems and gels
 - o Responsive materials for environmental, biological and chemical separation
 - o Self-healing surfaces
 - o C-C Composites and C-Polymer Composites
- **Polymer Science and Engineering**
 - o Polymers Synthesis and Characterization
 - o Polymer Reaction Engineering
 - o Polymer Processing
 - o Polymer Rheology
 - o Polymer Solutions and Thermodynamics
 - o Polymer Simulation and Computing
 - o Polymer based Nano and biocomposites
 - o Polymer Degradation
 - o Polymer and Nano-material Migration Studies
 - o Polymer Recycling and Reuses
 - o Biodegradable Polymers
 - o Polymer based Technology Development, licensing, Training and Entrepreneurship
 - o Biodegradable polymers and biobased nanocomposites
- **Energy Engineering**
 - o Artificial photosynthesis
 - o Biofuels: biodiesel, bioethanol, biobutanol, bio hydrogen and Bio oil
 - o Biomass gasification and pyrolysis
 - o Carbon dioxide capture and conversion to Fuel
 - o Clean coal technology
 - o Combustion and gasification reaction kinetics
 - o Fischer-Tropsch Synthesis
 - o Fuel cells
 - o Hydrogen production and storage
 - o Utilisation of lignocellulosic biomass for fuel/chemicals
 - o Solar cells
 - o Nuclear reactor

- o Membrane reformer for hydrogen production
- **Separation and Mixing Processes**
 - o Adsorption
 - o Bio-separation
 - o Membrane Separation Processes
 - o Micro-mixers & separators
 - o Post CMP cleaning
 - o Separation using Supercritical Fluids
- o Surfactant mediated separation processes
- **Food Science and Technology**
 - o Membrane technology based juice processing
 - o Drying technologies (RWD, Tray and Oven) for food product development from North-east horticulture resources
 - o Microwave assisted food processing
 - o Functional foods
 - o Food packaging

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Dr. Pankaj Tiwari	ICARST 2017	Vienna, Austria	24-28 Apr 2017	International
Prof. Tamal Banerjee	Liquid Matter 2017	Ljubjana, Slovenia	17-21 Jul 2017	International
Dr. V. S. Moholkar	3rd International Conference-Asia-Oceania Society of Sonochemistry AOSS-3	SRM University, Chennai	14-16 Sep 2017	International
Dr. V. S. Moholkar	International Conference on Emerging Trends in Biotechnology for Waste Conversion (ETWBC) – 2017, XIV Annual Convention of the Biotech Research Society, India	CSIR-NEERI, Nagpur	8-10 Oct 2017	International
Dr. V. S. Moholkar	6th International Conference on Advances in energy Research (ICAER-2017)	Indian Institute of Technology Bombay	12-14 Dec 2017	International
Dr. V. S. Moholkar	2nd ISEES International Conference on Sustainable Energy and Environmental Challenges (SEEC-2018)	Indian Institute of Science Bangalore,	31 Dec 2017-3 Jan 2018	International
Dr. V. S. Moholkar	Indo-Japan Conference (IJC-2018) on “New Insights into Multifunctional Catalysis for Biomass Transformation”	National Chemical Laboratory, Pune	18-19 Jan 2018	International
Dr. V. S. Moholkar	9th International Congress of Environmental Research (ICER-2018)	Amity University, Gwalior, Madhya Pradesh,	8-10 Feb 2018	International
Dr. Rajesh Kumar Upadhyay	CAMURE-10 & ISMR-9	Quindao, China	7-10 Jul 2017	International
Dr. Chandan Das	the Second Indo-Japan Bilateral Symposium on “Future Perspective of Bioresource Utilization” (IJBS 17)	IIT Guwahati	1-4 Feb 2018	International
Dr. Anugrah Singh	COMPFLU 2017	IIT Madras	18-20 Dec 2017	International
Prof. Ramagopal Uppaluri, Dr. Vimal Katiyar, Prof. K. Mohanty	Indo-Japan Bilateral Symposium on “Future Perspectives of Bio-resource Utilization in North-east India”	IIT Guwahati	1-4 Feb 2018	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Dipankar Bandyopadhyay	Microfluidics for Sensing, Reaction Engineering, Energy Harvesting, and Point-of-Care Testing	IIT Roorkee	Roorkee	Jan 2018
Dipankar Bandyopadhyay	Microfluidics for Sensing, Reaction Engineering, Energy Harvesting, and Point-of-Care Testing	IIT Madras	Chennai	2017
Dipankar Bandyopadhyay	Gateways to Research	IICHe-GRC	Guwahati	Aug 2017
Dipankar Bandyopadhyay	Self-Organizing Thin Films & Droplets of Functional Polymers - Liquid Crystals	9th Indo-German Frontiers of Engineering Symposium	Jaipur	9-12 Mar 2017
Prof. Vijayanand S. Moholkar	Bioethanol production from Partheniumhysterophorus: Process development, optimization and intensification	Assam Engineering College	Guwahati	17-18 Nov 2017
Prof. Vijayanand S. Moholkar	Bioethanol production from Partheniumhysterophorus: Process development, optimization and intensification	Tezpur University	Assam	23-24 Feb 2018
Prof. Vijayanand S. Moholkar	1. Topic: Ultrasound-Assisted Synthesis of Biodiesel with Homogeneous and Heterogeneous Catalyst 2. Biobutanol: Science, Engineering, and Economics	Kurukshetra University	Haryana	19-25 Mar 2018
Dr. Vimal Katiyar	Biodegradable Plastics for Advance Applications	Central Institute of Technology	Kokrajhar	9-11 Mar 2018
Dr. Vimal Katiyar	Biodegradable Plastics for Commodity, Engineering and Biomedical Applications	NRC-2017 & ICEP 2018	Guwahati	23-25 Feb 2018
Dr. Vimal Katiyar	Compostable Plastics for Commodity, Engineering and Biomedical Applications	IIT Guwahati	Guwahati	22-24 Feb 2018
Dr. Vimal Katiyar	Biodegradable Polymer Based Research & Development Activities	IIT Guwahati	Guwahati	20-24 Feb 2018
Dr. Vimal Katiyar	Biodegradable Plastics for Food Packaging Applications	Research Conclave during International Summit for Packaging Industry (ISPI)	New Delhi	27-28 Oct 2017
Dr. Vimal Katiyar	Development of Heat stable PLA	World food India 2017, International Food Summit	New Delhi	3-5 Nov 2017
Dr. Vimal Katiyar	Biodegradable bio-nanocomposite products and Technologies for commodity and medical applications	India Bioplastic Summit 2017	Bangalore	24-25 Nov 2017
Dr. Vimal Katiyar	Sustainable Polymers for commodity, engineering and Biomedical Applications	APA International Conference on Advances in Polymer Science and Technology	New Delhi	23-25 Nov 2017

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Dr. Vimal Katiyar	Biodegradable Polymeric Nano-materials for commodity, Engineering and Biomedical Applications	IIT Guwahati	Guwahati	8-11 Jan 2018
Dr. Vimal Katiyar	Biobased and Biodegradable plastics for stringent Food Packaging Applications	IIT Guwahati	Guwahati	1-4 Feb 2018

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANIZATIONS/INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Prof. Gargi Das	IIT Kharagpur	Invited Talk	3 Apr 2018
Dr. S. Kanmani	Anna University	Invited Talk	22 Feb 2018
Dr. Jothir Pichaandi	Fluidigm Canada Inc.	Invited Talk	15 Feb 2018
Prof. Debasish Kuila	NSF CREST	Invited Talk	19 Dec 2017
Prof. Akio Ebihara	Gifu University, Japan	Invited Talk	13 Dec 2017
Prof. Suryasarathi Bose	Indian Institute of Science	Invited Talk	13 Nov 2017
Prof. Geoffrey Evans	The University of New Castle, Australia	Invited Talk	20 Oct 2017
Prof. Ramesh L. Gardas	Indian Institute of Technology Madras	Invited Talk	21 Sep 2017
Dr. Foram Thakkar	Shell India Markets Pvt. Ltd.	Invited Talk	12 Sep 2017
Prof. Sabu Thomas	Mahatma Gandhi University, Kerala	Invited Talk	1 Sep 2017
Prof. K. K. Pant	IIT Delhi	Invited Talk	19 Aug 2017
Dr. Upal Ghosh	University of Maryland Baltimore County	Invited Talk	16 Aug 2017

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Workshop/ Conference	Funded By	Date	International/ National	No. of participants
Dr. Raghvendra Gupta	GIAN course on Physical Modelling of Multiphase Processes in Mineral and Chemical Processing	MHRD	23-28 Oct 2017	National	29
Dr. Vimal Katiyar, Dr. Amit Kumar, Dr. Ashok K. Dasmahapatra, Dr. Raghvendra Gupta	Fourth International Symposium in Advances in Sustainable Polymers ASP 17	SERB	8-11 Jan 2018	International	-
Dr. Vimal Katiyar, Prof. Ramgopal Uppaluri, Prof. Akio Ebihara	Indo-Japan Bilateral Symposium on Future Perspective of Bioresource Utilization in North-East India	NEC	1-4 Feb 2018	International	-
Prof. Shinichi Sakurai-KIT Japan, Dr. Vimal Katiyar, Dr. Amit Kumar, Dr. Ashok K Dasmahapatra, Dr. Raghvendra Gupta-IITG	IITG-KIT, 3rd Joint Symposium on Biobased Materials	-	12 Jan 2018	International	-

PATENTS

Name of Faculty and co researcher	Patent Name	Date Granted	Application No.
Mitradip Bhattacharjee, Dipankar Bandyopadhyay, Sunny Kumar	A Point-of-Care Hand Tremor Detection System	29 Aug 2017	PCT/IN2017/050366
Mitradip Bhattacharjee, Dipankar Bandyopadhyay, Harshal Nemade	A Lung Condition Monitoring Device	29 Aug 2017	PCT/IN2017/050363
Mitradip Bhattacharjee, Seim Timung Dipankar Bandyopadhyay, Tapas Kumar Mandal	A Microfluidic Electrical Energy Harvester	29 Aug 2017	PCT/IN2017/050364
Mitradip Bhattacharjee, Dipankar Bandyopadhyay, Sunny Kumar	A Point-of-Care Hand Tremor Detection Device	26 May 2017	(TEMP/E-1/18774/2017-KOL, Patent Appl. No. 201731018530)
Saptak Rarotra, Dipankar Bandyopadhyay, Tapas Kumar Mandal	Integrated MEMS-Microfluidic CO ₂ -sequestration Device to Produce Essential Organic Products Emulating Photosynthesis	18 Aug 2017	(TEMP/E-1/29803/2017-KOL, Patent Appl. No. 201731029391)
Nilanjan Mandal, Dipankar Bandyopadhyay	A MEMS-POCT Device for Quantitative Estimation of the Biomarker α -Amylase in Human Blood Serum	11 Sep 2017	(E-12/187/2017/KOL, Patent Appl. No. 201731032122)
Mitradip Bhattacharjee, Siddharth Thakur, Dipankar Bandyopadhyay	Acoustic Diagnostic Point-of-Care Testing Device for Blood Urea Detection,	20 Oct 2017	TEMP/E-1/37965/2017-KOL, Patent Appl. No. 201731037223)
Mitradip Bhattacharjee, Sagnik Middya, Dipankar Bandyopadhyay	A Point-of-Care System for Detection of the Physical Stress at Different Parts of Body,	20 Oct 2017	TEMP/E-1/37937/2017-KOL, Patent Appl. No. 201731037222)
Mitradip Bhattacharjee, Dipankar Bandyopadhyay	A Mobile RF Radiation Detection Device	20 Oct 2017	TEMP/E-1/37920/2017-KOL, Patent Appl. No. 201731037221)
Vimal Katiyar & Narendren S.	Polymer Composite Membrane for Water Purification	March 27, 2018	Indian Patent Application No: 201831011229
Vimal Katiyar, Ravi M. Sankar, Arbind Prasad	Resorbable polymer composite bone plate	March 27, 2018	Indian Patent Application No: 201831011253
Vimal Katiyar, Ravi M. Sankar, Arbind Prasad	Resorbable cortical screw	March 27, 2018	Indian Patent Application No: 201831011251
Vimal Katiyar, Ravi M. Sankar, Arbind Prasad, Siddharth Mohan Bhasney	Process for the preparation of polymer composite based Cancellous screws and Pins	March 27, 2018	Indian Patent Application No: 201831011252
Vimal Katiyar, Ravi M. Sankar, Arbind Prasad	Process for preparation of Resorbable polymeric composite U type bone staple	March 27, 2018	Indian Patent Application No: 201831011250.
Vimal Katiyar & Narendren S.	Membrane Filter for Cellulose Purification	March 27, 2018	Indian Patent Application No: 201831011228

AWARDS AND HONOURS

- Elected as Fellow of Institution of Chemical Engineers (IChemE) London, U. K.

STUDENTS' ACHIEVEMENTS

- Mr. Babul Prasad (Research Scholar) has been received the best oral presentation award in Research Conclave which was held at IIT Guwahati during 8th March-11th March 2018
- Dr. Binota Thokchom, Institute Postdoctoral Fellow (IPDF), has been selected for DST INSIPRE Faculty Award 2017.
- Dr. Binota Thokchom received the Young Scientist Award at the International Conference on Nanomaterials: Initiatives and Applications organized by School of Studies in Environmental Chemistry and Institute of Engineering, Jiwaji University, Gwalior (M.P.) March 9-11, 2018.
- Barnali Bhui (Research Scholar) has been awarded the best oral presentation award in ISEES International Conference on "Sustainable Energy and Environmental Challenges (SEEC-2018)" held at IISC Bangalore during 31st December, 2017-3rd January, 2018.
- Mr. Saiprasad Pati (M.Tech) has been received the "Ambuja's Young Researcher's Awards for doing Post-Graduate Studies in India", which will be awarded during the 70th Annual Session-cum-Indian Chemical Engineering Congress (CHEMCON 2017), to be held from 27-30 December, 2017 at Haldia.
- Miss Anusuya Talukdar (Research Scholar) has been awarded the best paper for the topic "Effect of H₂S and Acetic Acid on CO₂ Corrosion of Carbon Steel" in CORCON-2017 organized by NACE International, which was held in Mumbai, India
- Mr. Jitendra Singh Rawat (Research Scholar) has been given Best Poster Award in International Conference "CAMURE-10 and ISMR-9" held in China.
- Babul Prasad (Research Scholar) has been awarded the best poster award in the "International Conference on Sophisticated Instruments in Modern Research (ICSIMR 2017, 30th June-1st July)" organized by CIF, held at IITG.
- Akhilesh Pal was awarded 2nd Best Presentation (Springer Award) in the "International Symposium on Advances in Sustainable Polymers, ASP-17" jointly organised by CoESusPol, Dept. of Chemical Engineering, IIT Guwahati and PPA, India held at IITG on January 8-11, 2018.
- Arbind Prasad was awarded 3rd Best Presentation (Springer Award) in the "International Symposium on Advances in Sustainable Polymers, ASP-17" jointly organised by CoESusPol, Dept. of Chemical Engineering, IIT Guwahati and PPA, India held at IITG on January 8-11, 2018.
- Rahul Patwa was awarded "Certificate of Appreciation" with a cash prize of Rs. 2000 in the "International Symposium on Advances in Sustainable Polymers, ASP-17" jointly organised by CoESusPol, Dept. of Chemical Engineering, IIT Guwahati and PPA, India held at IITG on January 8-11, 2018.
- Gourhari Chakraborty was awarded 2nd Best Poster Award in the "International Symposium on Advances in Sustainable Polymers, ASP-17" jointly organised by CoESusPol, Dept. of Chemical Engineering, IIT Guwahati and PPA, India held at IITG on January 8-11, 2018.
- Monika was awarded Springer Award for poster presentations- 3rd prize in the "International Symposium on Advances in Sustainable Polymers, ASP-17" jointly organised by CoESusPol, Dept. of Chemical Engineering, IIT Guwahati and PPA, India held at IITG on January 8-11, 2018.
- Gourhari Chakraborty was awarded 2nd Best Poster Award in the "Indo-Japan Bilateral Symposium on Future Perspective of Bioresource Utilization in North-East India, IJBS-17" jointly organised by IITG and GIFU University, Japan on February 1-4, 2018 held at IITG.

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1.	Anandalakshmi, R.	IIT Madras	Assistant Professor	Computational Heat Transfer and Fluid Flow, Process Modeling and Simulation, Solar Thermal Energy Conversion, Energy Efficient Design of Thermal Systems
2.	Bandyopadhyay, Dipankar	IIT Kanpur	Associate Professor	Colloid and Interfacial Phenomena, Computational Fluid Dynamics, Micro and Nano Fluidics, Complex Flow and Fluids, Clean Energy – Fuel and Solar cells
3.	Banerjee, Tamal	IIT Kanpur	Professor	Phase equilibria of ionic liquids, Molecular simulations, Global optimisation, Statistical thermodynamics
4.	Chatterjee, Jaideep	Illinois Institute Of Technology, Chicago	Adjunct Faculty	Water Purification, Oil-water interfaces, and Surfactant Enhanced Oil Recovery

Sl. No.	Name	PhD	Designation	Areas of Interest
5.	Das, Chandan	IIT Kharagpur	Associate Professor	Wastewater Treatment, Bioremediation, Membrane based Separation Process
6.	Dasmahapatra, Ashok Kumar	IIT Bombay	Associate Professor	Complex fluids, Phase transition in polymers (Nucleation, crystallization, collapse transition, etc.), Structure-property relations, Molecular simulations, Biological physics
7.	De, Mahuya	IIT Kanpur	Associate Professor	Catalysis and reaction engineering, adsorption, hydrocarbon processing
8.	Ghosh, Pallab	IIT Bombay	Professor	Interfacial phenomena, Interfacial reactions, Membrane separation, Randomised algorithms
9.	Ghoshal, Alope Kumar	IIT Kharagpur	Professor	Advanced Separation Technology, Modeling & Simulation, Environmental Pollution Control, Pyrolysis of waste plastics
10.	Gooh, Pattader Partho Sarathi	Lehigh University	Assistant Professor	Stochastic dynamics, Colloid and Interface science, Tribology, Soft matter
11.	Golder, Animes Kr.	IIT Kharagpur	Associate Professor	Electroremediation of water/wastewater, Physiochemical water/wastewater treatment techniques, Bioremediation, Electrochemical corrosion
12.	Goud, Vaibhav V.	IIT Kharagpur	Associate Professor	Heterogeneous Reactions, Bio-energy and Green Engineering, Biolubricant, Utilisation of Lignocellulosic Biomass for Fuel/Chemicals, Supercritical Fluids
13.	Gumma, Sasidhar	Cleveland State University, USA	Professor	Phase Equilibria and Thermodynamics, Adsorption, Molecular simulation, Gas storage
14.	Gupta, Raghvendra	The University of Sydney, Australia	Assistant Professor	Multiphase flow, Microfluidics and micro process engineering, Computational and experimental fluid dynamics
15.	Katha, Anki Reddy	IISc Bangalore	Assistant Professor	Computational study of polymer-composites, Membranes, Poly electrolytes, Granular flows
16.	Katiyar, Vimal	IIT Bombay	Associate Professor	Synthetic and Natural Polymers, Polymer Processing, Biothermoset, Nanobiocomposite, Organic Solar Cells, Biodegradable Polymers, Energy
17.	Kishore, Nanda	IIT Kanpur	Associate Professor	CFD, Bubbles, Drops and Particles Dynamics, Non-Newtonian Fluids
18.	Kotecha, Prakash	IIT Bombay	Associate Professor	Optimization, Process Control, Artificial Intelligence, Planning and Scheduling
19.	Kumar, Amit	University of Delaware, USA	Associate Professor	Gas Transport in Nanoporous Materials, Molecular Simulation, Statistical Mechanics
20.	Mandal, Bishnnupada (Head of the Department)	IIT Kharagpur	Professor	Separations with chemical reaction, Molecular based membrane separation, Modeling and simulation of separation processes, Environmental pollution control
21.	Mandal Tapas K.	IIT Kharagpur	Associate Professor	Multiphase flow & Measurement in multiphase flow, Bio-diesel
22.	Mazumdar, Subrata Kumar	IIT Kharagpur	Professor	Multiphase flow and reactor development, Computational fluid dynamics in multiphase flow, Mineral processing, Process intensifications and Micro-nanobubble science and technology
23.	Mohanty, Kaustubha	IIT Kharagpur	Professor	Bioseparation, Biofuels, Biological wastewater treatment, Membrane technology, Ionic liquids

Sl. No.	Name	PhD	Designation	Areas of Interest
24.	Moholkar, Vijay S.	University of Twente, Netherlands	Professor	Bubble dynamics, CFD, Sono-process engineering, Bio-mass gasification
25.	Peela, Nageswara Rao	IIT Kanpur	Assistant Professor	Heterogeneous Catalysis and reaction engineering, Biomass conversion to value added chemicals, Bio-oil up-gradation to transportation fuels, Carbon dioxide activation to valuable chemicals, Metal encapsulated zeolites
26.	Prabu, Vairakannu	IIT Madras	Assistant Professor	Clean Coal Technology, Combustion and Gasification, Reaction kinetics
27.	Pugazhenth, G.	IIT Kanpur	Professor	Membrane Separation, Polymer Nanocomposites, Nanomaterials, Catalysis & Refinery Processes
28.	Purkait, Mihir Kumar	IIT Kharagpur	Professor	Advance Separation Processes, Membrane technology. Preparation/fabrication of ceramic/polymeric membranes and their application in RO, NF, UF and MF. Treatment of Industrial Effluent, Surfactant mediated separation processes, Responsive materials for environmental, biological and chemical separation
29.	Saha, Prabir Kumar	IIT Madras	Professor	Process Modeling, Optimisation and control, Membrane Based separation Process
30.	Senthilmurugan, S.	IIT Delhi	Associate Professor	Modeling and Optimization of Novel Processes, Process Design and Operation of Membrane Separation Processes, Waste and waste water treatment (WWWT) for Process Industries, Novel Desalination Technologies, Smart Water Grid, Waste to Energy
31.	Singh, Anugrah	IISc Bangalore	Professor	Computational and Experimental Fluid Dynamics, Microfluidics/Nanofluidics, Material Processing, Flow through Porous Media
32.	Tiwari, Pankaj	University of Utah, Salt Lake City, UT, USA	Assistant Professor	Conventional and unconventional energies, Reservoir Engineering, Complex organic solids, Biomass conversion, Pyrolysis process, Kinetic analysis
33.	Upadhyay, Rajesh Kr.	IIT Delhi	Associate Professor	Multiphase Flow Reactor, Multiphase Flow Measurements, Computational Fluid Dynamics, Residence Time Distribution, Novel Reactors
34.	Uppaluri, Ramgopal V. S.	UMIST, Manchester, UK	Professor	Major: Electroless Plating, Evolutionary Engineering Optimization, Low Cost Ceramic Membranes, Microfiltration Minor: Bio-systems Engineering, Polymer-natural fibre composites, Process Design & Techno-economics, Refinery Engineering, Reservoir Engineering. Extracurricular: Synthesis of Science and Spirituality
35.	Venkatesh, R. Prasanna	IIT Madras	Assistant Professor	Electrochemistry, Chemical Mechanical Polishing (CMP), Post CMP cleaning, Refinery Processes

DEPARTMENT OF CHEMISTRY

The Department at a Glance

Year of Establishment: 1995

Academic Programmes Offered:

Bachelor of Technology (BTech) in

- o Core (Theory and Laboratory) and Elective courses in Chemistry

Bachelor of Technology (BTech) in

- o Chemical Science & Technology

Master of Science and Technology

Master of Science (MSc) in

- o Chemistry

Doctor of Philosophy (PhD)

Total Faculty Strength: 40

- Professor: 18
- Associate Professor: 13
- Assistant Professor: 9

Total Student Strength: 485

BTech: 157

MSc: 94

PhD: 234

New Students Joined in 2017-2018: 155

BTech: 47

MSc: 47

PhD: 61

LABORATORY FACILITIES

Sl. No.	Details of Laboratory	Number	Approx. Floor space (m ²)	Availability of facilities like board, LCD, PC/ Laptop, AC, internet
Laboratories for B. Tech and M. Sc program				
01	Chemistry Laboratory (B. Tech, 1st sem) / Chemical Technology Lab – I, B. Tech (CST)	01	200	White board, PC, internet, phone
02	Chemical Technology Lab – II, B. Tech (CST)	01	140	White board, PC, internet, phone
03	Chemical Technology Lab – III, B. Tech (CST) / Physical Chemistry Lab (M. Sc)	02	300	White board, PC, internet, phone
04	Inorganic Chemistry Lab (M. Sc) / Organic Chemistry Lab (M. Sc)	01	180	White board, PC, internet, phone
Research Laboratories				
05	CHL –101, CHL – 102, CHL –103, CHL – 104, CHL –105, CHL –106, CHL – 201, CHL-202, CHL-203, CHL-204, CHL – 205, CHL – 206, CHL-3201, CHL-3202, CHL-3203, CHL-3204, CHL-3207, CHL-3209, CHEL-004, CHEL-005, CHEL-006, CHEL –101, CHEL –102, CHEL –103, CHEL – 104, CHEL – 105, CHEL – 106, CHEL –107, CHEL –108, CHEL – 109, CHEL –201, CHEL –202, CHEL –203, CHEL – 204, CHEL – 205, CHEL – 206, CHEL –207, CHEL –208, CHEL – 209, CHEL –301, CHEL –302, CHEL –303, CHEL – 304, CHEL – 305, CHEL – 306, CHEL –307, CHEL –308, CHEL – 309.	48	80 (average)	White board, computers, internet, phone, Centralized AC
06	Analytical equipment Lab I – VI	06	540	phone, computers, internet, AC
07	Computer Lab	02	80	phone, computers, internet, AC
08	Ultrapure (Millipore) water Lab	01	50	AC

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

- (i) Bruker 400 MHz NMR spectrometer under MHRD-FAST COE program
- (ii) Inverted Led Microscope for Brightfield, Dic, Led Fluorescence with 5Mp Ccd Camera, Imaging Software and Computer Make: Nikon, Model: ECLIPSE Ts2R-FL
- (iii) Automatic Potentiometric Titrator, Make: Metrohm AG
- (iv) Chemdraw Professional 17 academic site license for three (03) years for MS Windows Internet Download edition
- (v) High Speed Refrigerated Centrifuge, Make: HERMLE, Model: Z 36 HK

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

The Department is engaged in various research and Development activities such as:

Catalysis, Supramolecular Chemistry, Nanoscale Science and Technology, Synthesis, structure and reactivity of Inorganics, Newer reagents, Protocols and Newer methodologies, Synthesis of natural products and Carbohydrate Chemistry, Bio-organic Chemistry, Bio-inorganic Chemistry and Co-ordination Chemistry & Organometallics, Chiral recognition using metal complex based host, Metal removal from wastewater using polymer based chelators, Polymer synthesis, Organic Photochemistry, Molecular dynamics, Quantum Molecular dynamics, Physical Chemistry – Spectroscopic and Theoretical investigations on Novel Materials, peptide chemistry, Development of new theoretical approaches to: Laser Assisted Control

of Chemical Reactions, and, Resonances in Electron – Molecule Scattering, Biomimetic Chemistry and Chemical Biology, Computational Biophysics and Chemistry, Oxidation Catalysis, Molecular Magnetism, Synthesis of Single-Molecule Magnets (SMMs), MRI Contrast agents, Water Oxidation Chemistry, Experimental & Theoretical Physical Chemistry, Self-organization and Nonlinear dynamics, Liquid crystals, Functional Materials, Molecular Electronics, Self-Assembly, Supramolecular dynamic aggregates, peptides, lipids, Time Resolved Absorption and Fluorescence Spectroscopy, SHG, MUPPETS, Synthetic organic chemistry, Natural product synthesis with the emphasis of new synthetic methodology; development of new reactions, asymmetric organocatalysis and transition metal catalysis with new catalyst design; mechanistic study, solar fuel from water, Gas/Vapor/Liquid Adsorption and Catalytic Applications of Metal-Organic Frameworks (MOFs), Peptidomimetics: Synthesis, Conformation and Biological activity, Nanofluidics, Organometallic Chemistry and Catalysis, Bio-inspired Polymer Materials, Drug Delivery, Open Microfluidics, Chemical Sensor, Organofluorine Chemistry etc.

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

Major Initiatives in R&D:

Development of novel methods for the construction of diverse organic molecules those are of important in biological and medicinal sciences,

Development of novel strategies for C-H activation for the regioselective carbon-carbon and carbon-heteroatom bonds formations, which are important in academia and chemical industries from both environmental and economic standpoint,

Supramolecular chemistry of polypeptides which are important in drug delivery and nanotechnology,

Design and development of novel approaches for the development drugs for misfolding diseases, such as Alzheimer's disease (AD) and Parkinson's disease etc.

Development of atom economic routes for the construction of novel molecules which are important in pharmaceuticals, materials chemistry such as construction of devices etc.

Breakthrough Innovations:

There are some salient research achievements observed in the ongoing research and development under institutional and sponsored research projects which has appeared in reputed peer-reviewed journals recently in various fields of chemistry as mentioned below,

- More efficient desalination with crystalline carbon dots,
- Development of superhydrophobic coating that mimics lotus leaves or rose petals,
- Uses of superhydrophobic cotton to remove oil-spill,
- Development of a special kind of superior, oil-repulsive (oleophobic) coating that mimics nature to keep surfaces oil-free in water.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Anil K. Saikia	Contemporary Facets in Organic Chemistry	IIT Roorkee	22 Dec 2017	National
Anil K. Saikia	Recent Development in Chemical Sciences	Indira Gandhi National Tribal University, Amar-kantak	23 Feb 2018	National
Subhas Chandra Pan	21st CRSI-NSC 2017	IICT Hyderabad	14-16 Jul 2017	National
Uttam Manna	International conference (APA-2017) on Polymer Science & Advanced Technology	Delhi	23-25 Nov 2017	International
Uttam Manna	International Conference on Nanotechnology: Ideas, Innovations and Initiatives-2017	IIT Roorkee	6-8 Dec 2017	International
Uttam Manna	CompFlu	IIT Madras	18-20 Dec 2017	National
Uttam Manna	International Conference on Advanced Nanomaterials and Nanotechnology, ICANN-2017	IIT Guwahati	18-21 Dec 2017	International
Uttam Manna	International Symposium on Advances in Sustainable Polymers	IIT Guwahati	8-11 Jan 2018	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
T. Punniyamurthy	Regioselective C-H Functionalization and Carbon-Heteroatom Bond Formation	Dibrugarh University	Dibrugarh	26-28 Feb 2018
		IIT Kanpur	Kanpur	18-20 Jan 2018
		NIT Meghalaya	Shillong	12 Oct 2017
	Selective C-H Functionalization and Carbon-Carbon/Carbon-Heteroatom Bond formation	Cadila Pharmaceuticals	Ahamadabad	5 Sep 2017
	Selective C-H Functionalization and their Application for Medicinally Important Heterocycles	Syngenta	Goa	4 Sep 2017
	Regioselective C-H Functionalization and Carbon-Heteroatom Bond Formation	IIT Guwahati	Guwahati	27 Jul 2017
	Domino Strategies for the Synthesis of Medicinally Important Heterocycles	Kamaraj College	Thoothukudi, Sattur	23 Jul 2017
	Regioselective C-H Functionalization and Carbon-Heteroatom Bonds Formations, Academy Lecture	Kamaraj College	Thoothukudi, Sattur	22 Jul 2017
	Domino Strategies for the Synthesis of Medicinally Important Heterocycles	S. R. N. Memorial College	Sattur	22 Jul 2017
	Regioselective C-H Functionalization and Carbon-Heteroatom Bonds Formations	S. R. N. Memorial College	Sattur	21 Jul 2017
		Birla Institute of Technology and Science	Pilani	20 Apr 2017
	Nanocatalysis in Organic Synthesis	Gauhati University	Guwahati	5 Apr 2017
M. Ray	Invited Lecture at 255th ACS National Meeting	American Chemical Society	New Orleans, USA	18-22 Mar 2018
M. Sarma	Invited Lecture at CHEM CONVENE 17	IIT Guwahati	Guwahati	25 Jul 2017
	Invited Lecture at UGC Sponsored National Seminar on Harmony with Nature in the Context of Chemistry, Environmental Issues and Challenges	Pub Kamrup College	Baihata Chariali	11-12 Sep 2017
	Invited Lecture at 4th International Conference on Physical and Theoretical Chemistry	Conference Series	Dublin, Ireland	18-19 Sep 2017
	Invited Lecture at Half Day Symposium	IIT Bombay	Mumbai	31 Oct 2017
	Invited Lecture at Spectroscopy and Dynamics of Molecules and Cluster (SDMC) 2018	IISER Kolkata, IACS Kolkata, SINP Kolkata	Dooars	15-18 Feb 2018
	Invited Lecture at IACS – Conference on Electronic Structure, Spectroscopy, and Dynamics (IACS–CESSD) 2018	IACS Kolkata	Kolkata	22-25 Feb 2018
	Invited Lecture at National Conference on Applied Sciences, Sustainable and Evolving Technologies (ASSET) and 63rd Annual Technical Session of Assam Science Society	CIT Kokrajhar	Kokrajhar	9-11 Mar 2018
A. S. Achalkumar	Molecular Engineering of Perylene for Organic Electronics	Assam University	Silchar	20-22 Mar 2018

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
	Columnar self-assembly of shape-anisotropic molecules and their applications in organic electronics	IIT Guwahati	Guwahati	8-11 Jan 2018
	Tuning the self-assembly and photophysical properties of heterocyclic derivatives and their application in OLEDs	IIT Guwahati	Guwahati	17-21 Dec 2017
	Bay-annulated Perylene Tetraesters as Electroluminescent Liquid Crystals	IISER Mohali	Punjab	11-13 Oct 2017
Debapratim Das	Supramolecular Chemistry at Work	University of Cambridge	Cambridge	10 Nov 2017
	Aggregated Small Molecules: Hydrogel and AIEgens	IIT Jodhpur	Jodhpur	9 Mar 2018
Subhas Chandra Pan	Organocatalytic Asymmetric Cyclization Reactions	IISC Bangalore	Bangalore	19-20 Jun 2017
	Organocatalytic Asymmetric Cyclization Reactions	IIT Roorkee	Roorkee	22-24 Dec 2017
Pavan K. Kancharla	Organocatalytic Synthesis of 2-deoxyglycosides	IIT Roorkee	Roorkee	22-24 Dec 2017

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANIZATIONS/INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Prof. Gautam R. Desiraju	Indian Institute of Science Bangalore	Institute Lecture at Chemcon 2018	3 Mar 2018
Prof. Michael Wong Chi Man	French National Centre for Scientific Research CNRS Institut de Chimie (INC)	Hybrid Silica for application in catalysis and in nanomedicine fields	24 Jan 2018
Prof. Paul Walton	University of York, Heslington, York, UK	-	1 Feb 2018

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Convenor/ Co-ordinator, etc.)	Name of Sem./Wor./ Con.	Funded By	Date	International/ National	No. of participants
Dr. M. Sarma (One of the organizer)	5th International Conference on Complex Dynamical Systems and Applications (CDSA) 2017	Oil India Limited, SERB-DST, ACS OMEGA	4-6 Dec 2017	International	200

PATENTS

Name of Faculty and co researcher	Patent Name	Date Applied/ Granted	Application No.
Debasis Manna, Subhankar Panda, Nirmalya Pradhan, Ashalata Roy, Sachin Kumar	Triazole Derivatives and a method of its preparation	21 Dec 2017	TEMP/E-1/46735/2017-KOL
Chandan K. Jana, Surajit Haldar	Preparation of alpha-tetrazolyl N-heterocycles	21 Nov 2017	201731041694

AWARDS AND HONOURS

1. BNRS Young Scientist Research Award to Dr. U. Manna in 2017
2. DST UKIERI Thematic Partnership Award to Dr. D. Das
3. Dr. Sandip Paul has been selected as a top author (worldwide) and one of the most prolific authors of the Journal of Physical Chemistry B.
4. Dr. D. Srimani attended Alexander von Humboldt Programme at RWTH Aachen University (July 2017-October 2017)
5. Mr. Adil got best oral presentation in International Conference on Advances in Polymer Science & Technology, 2017, Mr. Adil got best poster award at 'International Conference on Sophisticated Instruments in Modern Research, 2017 (ICSIMR-2017)' IIT Guwahati
4. Mr. Adil and Ms. Dibyangana got best poster award in 'Chemconvene 2017', IIT Guwahati
5. Ms. Titli Ghosh got best poster award in 'Chemconvene 2017', IIT Guwahati.

SPECIAL MENTION

Mr. Kousik's work highlighted in The Better India, The Hindu Newspaper., Mr. Avijit's work highlighted in Science Monitor, Rajya Sabha TV, Mr. Avijit's work highlighted in Biotech Times, The Hindu Newspaper., Mr. Adil's work highlighted in ISCO NEWSLETTER, Mr. Adil's work highlighted in 'The Hindu Newspaper', Ms. Dibyangana's work highlighted in 'The Hindu Newspaper'.

STUDENTS' ACHIEVEMENTS

1. Mr. Adil and Ms. Dibyangana got Tertiary Prize in ISBE Bionic Innovation Competition
2. Ms. Dibyangana got best poster in 'Research Conclave 2018', IIT Guwahati

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1.	Bag Subhendu Sekhar	IIT Kharagpur	Professor	Bioorganic Chemistry and Chemistry of Unnatural Nucleic Acid and Peptides
2.	Baruah, Jubaraj B.	IISc Bangalore	Professor	Homogeneous Catalysis, Supramolecular chemistry and material design
3.	Bhabak, Krishna Pada	IISc Bangalore	Assistant Professor	Organic and Bio-organic Chemistry
4.	Biswas, Shyam Prosad	Ulm University, Germany	Associate Professor	Gas/Vapor/Liquid Adsorption and Catalytic Applications of Metal-Organic Frameworks
5.	Chattopadhyay, Arun	Columbia University	Professor	Nanoscale Science and Technology
6.	Chatterjee Sunanda	IISc Bangalore	Assistant Professor	Peptidomimetics: Synthesis, Conformation and Biological activity
7.	Das, Animesh	University of Goettingen, Germany	Assistant Professor	Organometallic chemistry and catalysis
8.	Das, Debapratim	IACS, Kolkata	Associate Professor	Supramolecular dynamic aggregates, peptides, lipids
9.	Das, Gopal	IIT Kanpur	Professor	Supramolecular, Bioorganic chemistry and Biomineralization
10.	Dutta, Sumana	IACS, Kolkata	Associate Professor	Experimental & Theoretical Physical Chemistry / Self-organization and Nonlinear dynamics
11.	Gupta, Ashish K.	Univ. of California, Los Angeles	Professor	Quantum Molecular Dynamics
12.	Iyer, Parasmeswar K.	CSMCRI, Bhavnagar	Professor	Polymer synthesis, Organic / Organometallic Chemistry & Device fabrication, Sensors
13.	Jana, Chandan K.	WWU Muenster, Germany	Associate Professor	Total Synthesis/ Natural Product Based Drug Discovery/ Synthetic Methodology/ Development of New Reaction

Sl. No.	Name	PhD	Designation	Areas of Interest
14.	Kancharla, Pavan K.	IIT Kanpur	Assistant Professor	Organic Chemistry, Carbohydrate Chemistry, Development of Synthetic Methodology, Organocatalysis
15.	Khan, Abu Taleb	Kalyani University, W. B.	Professor	Synthesis of Natural Products, Heterocycles and Carbohydrate Chemistry, Newer Methodologies
16.	Krishnamoorthy, G.	IIT Kanpur	Professor	Organic Photochemistry & Spectroscopy
17.	Kundu, Lal Mohan	LMU Munich, Germany	Associate Professor	Nucleic Acid / Peptide Chemistry, DNA / RNA Damage and Repair, DNA Hybrid Materials
18.	Mahata Kingsuk	University of Siegen, Germany	Assistant Professor	Solar Fuel from Water, Supramolecular Catalysis, Theranostic Nano-Medicine
19.	Manivannan, V.	IACS, Calcutta	Professor	Coordination Chemistry
20.	Mandal, Bhubaneswar	EPFL, Lausanne, Switzerland	Associate Professor	Peptide Chemistry and Amyloid Research
21.	Manna, Debasis	University of Illinois at Chicago	Associate Professor	Lipid-Protein Interaction, Lipid Synthesis
22.	Manna, Uttam	IISc, Bangalore	Assistant Professor	Bio-inspired Polymer Materials, Drug Delivery, Open Microfluidics, Chemical Sensor
23.	Mondal, Biplab	IIT Bombay	Professor	Coordination and Bioinorganic Chemistry
24.	Mukherjee, Chandan	Max-Planck Institute of Bioinorganic Chemistry, Muelheim, Germany	Associate Professor	Oxidation Catalysis / Molecular Magnetism / Synthesis of Single-Molecule Magnets (SMMs) / MRI Contrast agents / Water Oxidation Chemistry
25.	Pan, Subhas Chandra	Max-Planck-Institut fuer Kohlenforschung, Muelheim an der Ruhr, Germany	Associate Professor	Synthetic organic chemistry: Natural product synthesis with the emphasis of new synthetic methodology; development of asymmetric organocatalysis and transition metal catalysis with new catalyst design; mechanistic study
26.	Panda, Aditya N.	IIT Kanpur	Professor	Dynamics of bimolecular scattering processes
27.	Patel, Bhisma K.	IIT Kanpur	Professor	Bio-Organic Chemistry and Newer Methodologies
28.	Paul, Anumita	Columbia University	Professor	Surface Science, Catalysis, Thin Films
29.	Paul, Sandip	IIT Kanpur	Professor	Computational Biophysics and Chemistry
30.	Punniyamurthy, T. (Head of the Department)	IIT Kanpur	Professor	Synthetic Organic Chemistry
31.	Qureshi, Mohd.	IIT Kanpur	Professor	Materials Chemistry
32.	Ray, Manabendra	IIT Kanpur	Professor	Bioinorganic and Coordination chemistry
33.	Raidongia, Kalyan	JNCASR	Assistant Professor	Physical Chemistry
34.	Sahu, Kalyanasis	IACS, Kolkata	Associate Professor	Time Resolved Absorption and Fluorescence Spectroscopy, SHG, MUPPETS
35.	Saikia, Anil Kr.	RRL Jorhat	Professor	New Synthetic Methodology & Natural Product Synthesis

Sl. No.	Name	PhD	Designation	Areas of Interest
36	Sastri, Chivukula V.	University of Hyderabad	Associate Professor	Biomimetic Chemistry and Chemical Biology
37	Sarma, Manabendra	IIT Bombay	Associate Professor	Development of new theoretical approaches to Laser Assisted Control of Chemical Reactions, and Resonances in Electron – Molecule Scattering Reactions
38	Seetharam, A. K. A.	IISc Bangalore	Assistant Professor	Organometallic Chemistry, Inorganic Chemistry, Organofluorine Chemistry, Catalysis (Homogeneous and Heterogeneous), C-H and C-F activation
39	Srimani, Dipankar	IACS, Jadavpur	Assistant Professor	Organic, Organonometallic Chemistry
40	Sudhakar A. A.	CSMR, Bangalore	Associate Professor	Liquid crystals, Functional Materials, Molecular Electronics, Self-Assembly, Green Chemistry

DEPARTMENT OF CIVIL ENGINEERING

The Department at a Glance

Year of Establishment: 1998

Academic Programmes Offered:

Bachelor of Technology (BTech) in

- o Civil Engineering

Master of Technology (MTech) in

- Structural Engineering
- Water Resources Engineering and Management
- Geotechnical Engineering
- Environmental Engineering
- Transportation Systems Engineering
- Infra-structure Engineering & Management
- Earth System Science and Engineering

Doctor of Philosophy (PhD)

Total Faculty Strength: 46

- Professor: 17
- Associate Professor: 14
- Assistant Professor: 15

Total Student Strength: 698

BTech: 288

MTech: 198

PhD: 212

New Students Joined in 2017-2018: 228

BTech: 80

MTech: 114

PhD: 34

LABORATORY FACILITIES

Environmental Engineering Laboratory

Environmental Engineering laboratory is equipped with some of the sophisticated instruments such as Atomic Absorption Spectrophotometer (AAS) for heavy metals analysis in ppm and ppb levels, UV-Visible Spectrophotometer for the quantitative determination of different analyses like transition metal ions and highly conjugated organic compounds, Gas Chromatograph for separating and analyzing compounds that can be vaporized without decomposition, Ion Chromatograph for analyzing organic and inorganic compounds, Laser Particle Size Analyzer for particle size gradation in the range 0.02- 2000 µm etc. The laboratory is also equipped with some of the major instruments for air quality monitoring like Micro-meteorological monitoring system with required accessories and data logging system and software (automatic), Cascade Impactor etc. The laboratory has also a well-equipped microbiology division with microbial research facilities to enrich, isolate, and identify noble bacterial species. The laboratory is equipped with the instrumentation facilities for water quality and wastewater analysis, solid waste and hazardous waste characterization.

Geotechnical Engineering Laboratory

The geotechnical engineering laboratory aims to conduct testing and research for the identification of the engineering behavior of geomaterials such as soils, rocks, geosynthetics, fly-ash, composite materials and different by-products of the geomaterials. The research expertise endorsed by the lab has been successfully used in multi-faceted geotechnical problems involving foundations, dams, embankments, tunnels, reservoirs, pavement subgrades, slopes, retention systems, seismicity and rainfall affected systems, as well as specialized applications like waste containment systems, biostabilization, nuclear repository containment and harnessing of geothermal energy. The precision of such design and analyses largely depends on the experimental information and numerical modeling skills supported by the geotechnical laboratory. The primary aim of the geotechnical laboratory is to look for avenues of safe and economic design, analyses and stabilization approaches, which is the need of the hour of North-Eastern region. The geotechnical laboratory is equipped with state-of-the-art instruments essential to determine the different physical, chemical, geotechnical and geophysical properties of the geomaterials. The major equipments already present in the laboratory are the Cyclic triaxial testing apparatus, Multi-channel data logging (MASW accompanied by cross-hole apparatus), Unsaturated triaxial setup, Rock testing equipments, Research Centrifuge, Guelph Permeameter, Cross permeability test apparatus, automated Direct shear and Consolidation setups and several others. The laboratory is also well equipped with specialized network licensed numerical and modeling softwares such as GeoStudio, PLAXIS 2D and 3D, RocScience, FLAC, 2007, to name a

few. The major equipments which are under the process of acquirement in 2017-18 are Flame Photometer, High Accuracy Digital Balance, Vane Shear Apparatus, Direct Shear Apparatus, Torshear Ring Apparatus (arriving soon), ProCheck Digital/Analog Sensor Handheld Readout, and Water Distillation Unit.

Infrastructure Engineering and Management Laboratory

Project Management Laboratory with well-equipped computing facilities along with the state of the art project management and infrastructure planning softwares such as MS Projects, Primavera Project Planner, and Autodesk Revit Building Suite.

Some of the quantitative analyses carried out in this laboratory includes:

- Financial modelling of infrastructure projects
- Construction cost estimation and rate development
- Earned value analysis of infrastructure projects
- Resource driven scheduling
- nDimensional modelling of built facilities
- Risk analysis and assessment of infrastructure projects
- Concrete Testing laboratory is equipped with sophisticated equipment for carrying out tests on special concrete such as self-compacting concrete (SCC) and foamed concrete. Other important facilities include the equipment to study the corrosion behavior of steel reinforcement, shrinkage and microstructure of concrete.

Structural Engineering Lab

This lab is equipped with state of the art facilities for conducting high end experimentation in the field of Structural Engineering and is equipped with equipment like Overhead EOT Crane for Structural test hall, Universal Test frame, NDT equipment like Corrosion analyzing, Rebar locator, Permeability tester, Resistivity meter, extraction tester, Dynamic Actuator system, Earthquake simulator, Pseudo Dynamic Test Facility, FFT analyzer for vibration testing of structural elements, Resonant frequency meter, HBM-48channel data acquisition system, Hydraulic Fork Lift, A-Frame Aluminium Ladder (16ft high), Automatic Vicat's apparatus for SC, Initial and Final Setting of Cement, 300 LPM in Powerpack for MTS test system, Reaction Mass Assembly for Electoseis Long Stroke Shaker Model 113 etc. Abaqus V 6.8 software, ANSYS – v13, SAP 2000 – v14, MIDAS, Primavera etc.

Survey Laboratory

This lab is equipped with a wide array of state of the art facilities required for conducting Engineering Survey. Some of the crucial equipment available in this laboratory are Unmanned Aerial Vehicle (Drone), Terrestrial Laser Scanner (TLS), Differential Global Positioning System (DGPS), Total

Station, Digital Theodolite, Auto Level and Hand-held Global Positioning System (GPS).

Transportation Systems Engineering Laboratory

This lab has two major sub divisions - Pavement Engineering and Traffic Engineering encompassing all the specialized areas of Transportation Systems Engineering. The Pavement Engineering section is equipped with many state of the art equipment not only for testing pavement materials such as bitumen, aggregates and soil, but also for in-situ pavement evaluation. Some of the major equipment available in the lab are Setup of major equipment for production and design of Cold Mixes (Wet Track Abrasion, Cohesion Tester, Schulze Breuer and Loaded Wheel Tester), Pneumatic Universal Testing Machine (UTM), Gyratory Compactor, Falling Weight Deflectometer (FWD), Dynamic Shear Rheometer (DSR), Digital Marshall cum Indirect Tensile Strength Tester, CoreDry and CoreLok. On the other hand, the Traffic Engineering Laboratory is equipped with a wide array of facilities required for Traffic data collection and analysis. This lab is well equipped with many sophisticated equipment such as Video VBox, Handheld Roughometer, Speed Radar Guns, Portable Mast Assembly and Dipstick. In addition to this, many software such as VISSIM, MXRoad and HDM-4 are also available in the simulation section of this laboratory.

Water Resources Engineering Laboratory

Water Resources Engineering laboratory is equipped with some of the sophisticated instruments such as Acoustic Doppler Velocimeter (ADV) for recording instantaneous velocity components at a single-point, Acoustic Doppler Current Profiler (ADCP) for measuring water current velocities, DGPS, Spectro-radiometer, Miniature Tensiometer to measure soil suction pressure etc. The laboratory has a 5 m flow channel or flume which is mostly used for carrying out experiments and demonstrations in water flow, friction in a uniform flow channel, flow over a sharp-crested weir, crump weir, streamlined hump, flow under a sluice gate etc. The laboratory has also a 20 m long tilting flume for conducting real time open-channel flow simulation experiments. Another 30 m long flume has been installed for undertaking cutting edge research in the area of open channel flow, sediment transport processes etc. Work is also being carried out in land use and land cover classification, river migration, water-shed delineation, flow accumulation and hill slope hydrology. The laboratory is also equipped with Drainage and Seepage Tank, 3D Ground Water Flow Laboratory Model for conducting experimental study regarding flow through permeable media, flow line visualization, flow net construction, determination of seepage rate, verification of Darcy's law etc. Research work is also being carried out regarding determination of soil hydraulic conductivity which is one of the governing factors for controlling flow through porous media. Both field and laboratory experiments are simultaneously conducted using different types of infiltrometers like Double Ring infiltrometer, Mini

disc infiltrometer, tension infiltrometer etc. for determining hydraulic conductivity of soil, followed by mathematical analysis using numerical tools like HYDRUS to estimate the soil hydraulic properties. Latest versions of the applicable software such as Geomatica, MIKE 21C & CCHE3D have been procured to carry out research related work.

Computational Laboratory

There are three nos. of computer laboratories out of which one lab is located in the M-Block which has around 60 number of Desktop Computers all properly connected to the network and to the centralized UPS system, a wide screen LED Display and a good number of computer related books. The other two labs are in the Annexure Building which has dedicated Wi-Fi facility. A Departmental Server Room is located at M-Block of our Department which has all the license servers for the licensed software of our Department. The licensed softwares are: SAP 2000, ANSYS 13.0 & 17.0, ABACUS 6.8, Arc GIS, COMSOL 4.2 & 4.2a, MIDAS GEN & MIDAS Civil, GROUND WATER MODELLING SOFTWARE (GMS), WMS 8.2, PLAXIS 2D & 3D, HYPERMESH, LS DYNA, ROC SCIENCE, ETAB, CSI BRIDGE, GEO STUDIO 2012, ERDAS, SPACE GASS. The Lab has three numbers of Servers. One Server is of Make DELL and Model Dell Power Edge R730, the second server is of Make HP and Model HP Proliant DL380 Gen9 and the third server is of Make IBM and Model X3650 M3. The Lab has one number of storage box of Make IBM and Model DS 3500. The Lab has a 26U Floor Mount Server Rack system of Make Valrack with two numbers of fan and 1 number of power distribution units. The Lab has a centralized UPS facility.

Earth System Science and Engineering Laboratory

This programme was started in 2016 with the objectives to provide high quality classroom, laboratory and field education. North-eastern region of India is blessed with natural resources (natural and mineral resources including oil and gas) and located in a seismic zone that demands close monitoring of geophysical parameters. In the backdrop of accelerated infrastructure development for national growth, growing incidences of geohazards and natural uncertainties such as climate change has necessitated systematic understanding of the Earth systems in order to build future infrastructures pragmatically, and seek sustainable solutions for hazard related uncertainties. To address these problems scientifically, this specialization is actively involved in various interdisciplinary research projects and consultancy assignments. Apart from the contemporary learning, students of this specialization will be trained with latest techniques of quantitative analyses which can be directly used for the identification and exploration of natural resources. This will provide research and employment opportunities in various sectors such as mineral & hydrocarbon exploration, natural resource management, geo-environment etc.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

- (a) Meiji Trinocular Stereo Zoom Microscope with Camera and Retina Screen (Model EMZ-13 TR)
- (b) Automatic Potentiometric Titrator: 888 Titrand (Make: Metrohm)

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Soil Dynamics, Geo-environmental Engineering, Ground Improvement, Landslides, Behavior of Clays and Clay Minerals, Sustainable development, Public Private Partnerships, Risk Management, Construction Management, Durability studies in concrete, Corrosion of steel reinforcement and protection measures, High performance concrete, Mass transport in cementitious materials, Non-destructive testing of concrete structures, Light weight concrete (Foam concrete), Shrinkage behaviour and thermal performance of concrete, Sustainable materials in construction, Hydrological modeling, Earth and planetary exploration, Study of sediment dynamics in fluvial systems, Petrophysical Modelling for Petroleum Exploration, Environmental impact/risk assessment & management, Remote Sensing and GIS for mapping groundwater potential and recharge, Geodesy and mapping, Photogrammetry and LiDAR, Integration of remote sensing techniques, Sensor calibration and synthetic simulation, Airborne remote sensing (Unmanned Aerial Vehicles) for mapping and exploration, Advance

Remote Sensing (hyperspectral, thermal and microwave) and GIS techniques Natural Resource Management, earthquake engineering, structural mechanics, structural dynamics, fracture and fatigue mechanics, finite element analysis, durability of structures, non-destructive testing, construction materials, numerical and analytical methods, computer aided analysis, passive and semi-active control, retrofitting of structures, computational mechanics, IT in construction management, structural analysis and design, performance based seismic design, system identification & structural health monitoring, seismic damage assessment, bridge engineering, wind induced vibration & control, random vibration, nonlinear behaviour of structures, ultrasonic wave propagation, acoustic-impact detection, time-frequency analysis, impact and blast resistant design, reliability analysis and performance based engineering, design and optimization of protection measures, sustainable construction and sustainable construction materials, Removal of heavy metals from wastewater using amine based functionalized polymers, Biodegradation of industrial wastewater, Removal of toxic pollutants like phenol, ammonia, thiocyanate, pyridine from wastewater in fed batch type reactors by indigenous cultures and Air quality modeling in urban transport and industrial environment, Pavement Evaluation and Management, Road Safety, Traffic Flow and Travel Behavior Modeling.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Prof. Anjan Dutta	International Conference on Vibration Problems	IIT Guwahati	29 Nov-2 Dec 2017	International
	Thirty-third National Convention of Civil Engineers on 'Recent Advances in Structural Engineering', Institute of Engineers	Ahmedabad	2-3 Sep 2017	National
Prof. Arup Kumar Sarma	Water and Neighborhood Media Workshop, organized by The Third Pole	Chulalongkorn University Bangkok	21-23 Aug 2017	International
	Workshop on Skill and Knowledge Building Training organized by SaciWATERS, in collaboration with Centre for North East Studies and Policy Research (C-NES)	Guwahati	13-14 Jun 2017	National
	Thirteenth International Conference on Technology, Knowledge and Society	University of Toronto, Canada	26-28 May 2017	International
	Workshop on Living Root Bridge at Mawlynnong, organized by National Geographic Society Expedition Council	East Khasi Hills Meghalaya	3 Apr 2017	National
Prof. Rajib Kumar Bhattacharjya	7th International Ground Water Conference Ground Water Vision 2030	New Delhi	11-13 Dec 2017	International
Dr. A. Murali Krishna	IFCEE 2018	Orlando, US	6-10 Mar 2018	International
	3rd India-Japan Workshop	IIT Guwahati	13 Dec 2017	International

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
	13th International Conference on Vibration Problems (13ICOVP)	IIT Guwahati	29 Nov-2 Dec 2017	International
	Geotechniques for Infrastructure Projects (GIP)	Thiruvananthapuram	27-28 Feb 2018	International
	Indian Geotechnical Conference 2017	IIT Guwahati	14-16 Dec 2017	International
	Sixth Indian Young Geotechnical Engineers Conference	NIT Trichy	10-11 Mar 2017	International
Dr. Akhilesh Kumar Maurya	97th Annual Meeting of TRB	Washington, D. C, USA	7-11 Jan 2018	International
	Conference of the Eastern Asia Society for Transportation Studies	Vietnam	18-21 Sep 2017	International
	4th Conference of Transportation Research Group of India (CTRG)	IIT Bombay	17-20 Dec 2017	International
Dr. Anil K. Mishra	Geoenvironmental Engineering	Seoul, S. Korea	2017	International
Dr. Suresh A. Kartha	16th International Waste Management and Landfill Symposium	Cagliari, Italy	2-6 Oct 2017	International
	9th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics	Foz do Iguacu, Brazil	11-15 Jun 2017	International
Dr. Arindam Dey	Workshop on 2-dimensional and 3-dimensional Slope Stability Analysis	Mumbai	5-6 Feb 2018	International
	3rd Indo-Japan Workshop on Geotechnics for Natural Disaster Mitigation and Management	Guwahati	13 Sep 2017	International
	2nd Korea-India Joint Geotechnical Workshop	Seoul, South Korea	21 Sep 2017	International
Dr. Rajan Choudhary	4th International Conference of the Transportation Research Group of India (CTRG-2017)	IIT Bombay	17-20 Dec 2017	International
Dr. Rajan Choudhary	National Conference on Roads and Transport (NCORT-2017)	IIT Roorkee	14-15 Oct 2017	National

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Dr. A. Murali Krishna	Seismic Analysis of Reinforced Soil Retaining Walls	Indian Geotechnical Conference	Chennai	15-17 Dec 2017
Dr. A. Murali Krishna	Geosynthetics for Infrastructure Projects	Technical Seminar on "Innovative Technologies in Built Environment"	Guwahati	5-6 Jan 2017
Dr. A. Murali Krishna	Seismic Analysis of Reinforced Soil Retaining Walls	National Workshop on Geotechnology for Sustainable Development	Chandigarh	28 Oct 2017
Dr. Rajan Choudhary	Roadside Design and Appurtenances	IIT Guwahati	Guwahati	6-10 Feb 2018

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Dr. Rajan Choudhary	Good Road Safety Engineering Practices and Importance of Maintenance to Enhance Safety	IIT Guwahati	Guwahati	6-10 Feb 2018
Dr. Rajan Choudhary	Understanding Permeability Characteristics of Asphalt Mixtures as Function of Aggregate Gradation	IIT Roorkee	Roorkee	14 Oct 2017

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANIZATIONS/INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Mr. V. K. Jindal	Swachh Bharat Mission	RECYCLE 2018	22 Feb 2018
Prof. Pascaline Pré	IMT Atlantique	RECYCLE 2018	22 Feb 2018
Prof. Shyamala Mani	National Institute of Urban Affairs	RECYCLE 2018	22 Feb 2018
Dr. B. K. Dubey	IIT Kharagpur	RECYCLE 2018	23 Feb 2018
Prof. J. W. C. Wong	Hong Kong Baptist University	RECYCLE 2018	23 Feb 2018
Prof. B. J. Alappat	IIT Delhi	RECYCLE 2018	23 Feb 2018
Prof. Agamutu Pariatamby	University of Malaya	RECYCLE 2018	23 Feb 2018
Dr. Vimal Katiyar	IIT Guwahati	RECYCLE 2018	24 Feb 2018
Dr. Jiwan Singh	BBAU Lucknow	RECYCLE 2018	24 Feb 2018
Prof. Kazmi Abssar Ahmed	IIT Roorkee	RECYCLE 2018	24 Feb 2018
Prof. M. V. Shitikova	Voronezh State Technical University	Keynote Speaker in ICOVP	29 Nov 2017
Prof. A. Aran	Isik University, Turkey	Keynote Speaker in ICOVP	29 Nov 2017
Prof. A. Chatterjee	IIT Kanpur	Keynote Speaker in ICOVP	29 Nov 2017
Prof. T. K. Dutta	IIT Delhi	Plenary Speaker in ICOVP	29 Nov 2017
Dr. K. Renji	ISRO	Plenary Speaker in ICOVP	29 Nov 2017
Dr. S. Gupta	IIT Madras	Invited Speaker in ICOVP	29 Nov 2017
Prof. A. N. Nayak	VSSUT, Burla	Invited Speaker in ICOVP	29 Nov 2017
Prof. G. R. Reddy	BARC, Mumbai	Keynote Speaker in ICOVP	30 Nov 2017
Dr. S. Narasimhan	University of Waterloo, Canada	Keynote Speaker in ICOVP	30 Nov 2017
Prof. R. Padhi	IISc, Bangalore	Keynote Speaker in ICOVP	30 Nov 2017
Prof. F. Karadogan	Isik University, Turkey	Keynote Speaker in ICOVP	30 Nov 2017
Prof. D. Roy	IISc, Bangalore	Keynote Speaker in ICOVP	30 Nov 2017
Dr. D. Roy Mahapatra	IISc, Bangalore	Keynote Speaker in ICOVP	30 Nov 2017
Dr. S. Sarkar	IIT Madras	Invited Speaker in ICOVP	30 Nov 2017
Prof. S. Chakraborty	IIST Shibpur	Keynote Speaker in ICOVP	1 Dec 2017
Prof. T. Hayashi	Kyoto University, Japan	Keynote Speaker in ICOVP	1 Dec 2017
Dr. S. Barad	Ministry of Defense, Bangalore	Keynote Speaker in ICOVP	1 Dec 2017
Dr. S. Banerjee	IIT Bombay	Invited Speaker in ICOVP	1 Dec 2017
Dr. S. Ray Chaudhuri	IIT Kanpur	Invited Speaker in ICOVP	1 Dec 2017
Prof. A. (Dey) Gosh	IIST Shibpur	Invited Speaker in ICOVP	1 Dec 2017
Dr. S. Dey	NIT Silchar	Invited Speaker in ICOVP	1 Dec 2017
Dr. V. K. Dadhwal	IISST Thiruvananthapuram	Plenary Speaker in ICOVP	1 Dec 2017
Prof. S. Bhalla	IIT Delhi	Keynote Speaker in ICOVP	2 Dec 2017

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of partici- pants
Dr. Arunasis Chakraborty (Secretary)	International Conference on Vibration Problems	ISRO NEC, Shil-long CSIR	29 Nov-2 Dec 2017	International	239
Dr. Arindam Dey	The Indian Geotechnical Conference	Indian Geotech-nical Society	14-16 Dec 2017	National	600
Dr. Ajay Kalamdhad	Recycle-2018	SELF	22-24 Feb 2018	International	210
Dr. Akhilesh K. Maurya, Dr. Rajan Choudhary	5 day Training program on Road Safety	MORTH through AITD, New Delhi	6-10Feb 2018	National	35

PATENTS

Name of Faculty and co researcher	Name	Date Applied/ Granted	Application No.
Mahesh Raveendranatha Panicker, Ajay Kumar Behera, Venkatesh Rajagopalan, Budhaditya Hazra, Venkatarao Ryali, Vivek Venugopal Badami,	Methods and systems to monitor health of rotor blades	23 May 2017	US Patent no.9657588 Application number. 14140634
Vijaykumar L. Dhadge, Chitta Ranjan Medhiand Mihir Kumar Purkait	Apparatus and method for removal of Fluoride, Iron, Arsenic and Microorganisms from contaminated drinking water	21 Aug 2017	481/KOL/2010

AWARDS AND HONOURS

- Dr. Manish Kumar Goyal, Assistant Professor, Department of Civil Engineering has been recognized as an outstanding young scientist and awarded First Runner-Up prize during Indian Youth Poster Competition organized by the Asia-Pacific Network for Global Change Research (APN), Japan at its 22nd Joint Inter-Governmental Meeting and Scientific Planning Group Meeting in New Delhi, India during April 24-27, 2017.
- Dr. Rajan Choudhary, Selected as Fellow of the Institution of Engineers (India).
- Dr. Rajan Choudhary, Appointed as Member of Committee H-9 on Composite Pavements of the Indian Roads Congress.
- Received best paper award in "Grouting Tech/ Environment Tech" and conferred IGS- Prof. A.V. Shroff Biennial Award-2017 for the paper "Experimental Analysis of Salt Diffusion in Compacted Clays by Through Diffusion and Half-Cell Technique" by Partha

Das, S.R. Man Parvesh and T.V. Bharat published in the proceedings of Indian Geotechnical Conference 2016, Chennai, India.

STUDENTS' ACHIEVEMENTS

- Poster presented by Abhinay Kumar (PhD Student) received the Best Poster Presentation Award during the 4th International Conference of the Transportation Research Group of India (CTRG-2017) at IIT Bombay, Mumbai.
- Abhinay Kumar (PhD Student) selected for International Travel Support Scheme of Dept. of Science and Technology (Govt of India) for attending The 17th Annual International Pavement Engineering, Asphalt Technology and Infrastructure Conference, at Liverpool, UK during February 21-22, 2018.
- Abhinay Kumar (PhD student) received Letter of Appreciation from Prof. Hassan Al Nageim (Conference Director, 17th Annual International Conference on

Pavement Engineering, Asphalt Technology and Infrastructure, 21-22 February 2018, Liverpool, United Kingdom) stating that paper entitled: “USE OF BASIC OXYGEN FURNACE STEEL SLAG IN OPEN GRADED FRICTION COURSES” presented during the conference

was considered as one of the three best papers presented.

- Poster titled “Studies on assessment of suitability of commonly available surfactants for use in foam concrete production” won the first prize in Civil Engineering in Research Conclave 2018.

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1	Barua, Gautam	IIT Kharagpur	Professor	*Flow through porous media
2	Bharat, T. Venkata	IISc Bangalore	Associate Professor	*Behavior of unsaturated soils during infiltration & drainage *Settlement behavior of ultra-soft soils and mine tailings *Contaminant transport through landfill liners *Mineralogical aspects of clays *Inverse analysis of geotechnical & geo environmental engineering problems
3	Bharti, Rishikesh	IIT Bombay	Assistant Professor	* Application of remote sensing and Geographic Information System (GIS). * Airborne remote sensing (Unmanned Aerial Vehicles) for mapping and exploration. * Advance remote sensing (hyperspectral, thermal and microwave) and GIS techniques for the earth and planetary exploration
4	Bhattacharjya, Rajib K.	IIT Kanpur	Professor	*Water Resources System Management *Genetic Algorithms *Artificial Neural Networks
5	Buragohain, Dhirendra. Nath	IIT Bombay	Emeritus Professor	*Structural Mechanics * Finite Element Methods *Numerical Methods *Computer aided analysis *Design and drafting *Development of software
6	Chakraborty, Arunasis	Trinity College, Dublin, Ireland	Associate Professor	• Random Vibration & Wavelet Analysis • System Identification & Damage Detection • Uncertainty Quantification & Reliability Based Design
7	Chakraborty, Saswati	IIT Bombay	Professor	• Heavy metal removal by polymers • Aerobic granular reactors • Sequential treatment of industrial wastewater • Constructed wetland for wastewater treatment
8	Choudhary, Rajan	IIT Roorkee	Associate Professor	*Pavement Analysis and Design *Highway Construction and Quality Control *Pavement Material Characterization *Pavement Evaluation and Maintenance *Traffic Engineering
9	Das, Sandip	IIT Kanpur	Assistant Professor	*Earthquake Engineering *Structural Dynamics *Random Vibration
10	Dasgupta, Kaustubh	IIT Kanpur	Assistant Professor	*Earthquake Engineering *Design of Reinforced Concrete Structures *Retrofitting of Structures

Sl. No.	Name	PhD	Designation	Areas of Interest
11	Dashora, Ajay	IIT Kanpur	Assistant Professor	<ul style="list-style-type: none"> * Synthetic Simulation * Sensor Calibration * Airborne and Terrestrial LiDAR * Thermography * Integration of Remote Sensing Technologies * Development of Lumped Parameter Models * Flight Planning * Unmanned Aerial Vehicles (UAVs) for Mapping
12	Deb, Sajal Kanti	IIT Roorkee	Professor	<ul style="list-style-type: none"> *Passive and semi-active control *Performance based seismic design *System identification & structural health monitoring *Seismic damage assessment
13	Dey, Arindam	IIT Kanpur	Assistant Professor	<ul style="list-style-type: none"> *Geosynthetic Reinforced Foundation Beds *Geotechnical Lumped Parameter and Continuum Mechanics Modeling *Parameter Estimation of Geotechnical Models *Optimization, GA, ANN and Soft Computing in Geotechnical Engineering *Ground Modification and Improvement Practices *Soil-Structure-Foundation Interaction *Reinforced Soil Structures *Landslides and Slope Stability Analysis *Seismic and Ambient Health Monitoring of Geotechnical Structures *Reliability and Uncertainty Analysis in Geotechnical Engineering *Forensic Investigation in Geotechnical Engineering *Subsurface Profiling and Soil Investigation *Soil Dynamics and Earthquake Engineering
14	Dutta, Anjan	IIT Delhi	Professor	<ul style="list-style-type: none"> *Finite Element Mesh Generation *Optimization *Control, Health Monitoring and Retrofitting of structures
15	Dutta, Subashisa	IIT Kharagpur	Professor	<ul style="list-style-type: none"> *Meso-Scale Distributed hydrological modeling *Satellite Remote Sensing and GIS for Water resources Management *Computational river hydraulics and its applications *Watershed and Irrigation Management
16	Ghosh, Pranab Kumar	IIT Kharagpur	Professor	<ul style="list-style-type: none"> *Water treatment for domestic and industrial use *Domestic and Industrial wastewater treatment *Sludge treatment by physicochemical and biological process
17	Gokhale, Sharad B.	IIT Delhi	Professor	<ul style="list-style-type: none"> *Air Pollution and Environmental Noise
18	Goyal, Manish Kumar	IIT Roorkee	Assistant Professor	<ul style="list-style-type: none"> *Stochastic Hydrology and Distributed Hydrological Modeling *Hydro-climatology and Statistical Downscaling *Irrigation Management and Crop Modeling Applications *Multivariate Statistical Analysis, Machine Learning Models and Data Mining

Sl. No.	Name	PhD	Designation	Areas of Interest
19	Hazra, Budhaditya	University of Waterloo, Canada	Assistant Professor	*Deterministic and Stochastic Structural Dynamics *System Identification *Blind source separation *Time-frequency analysis *Vibration based condition monitoring
20	Jawed, Mohammad	Ph D Indian Institute of Technology Kanpur	Professor	*Biological Processes *Anaerobic Wastewater Treatment *Heavy Metal Removal and Recovery *Water Treatment and Supply *Domestic & Industrial Wastewater Treatment
21	K., Ravi	IISc Bangalore	Assistant Professor	*Geo-environmental engineering *Geo-energy systems *Engineering behaviour of unsaturated soils *Research on hazardous waste management
22	Kalamdhad, Ajay	IIT Roorkee, India	Associate Professor	*Solid waste management *Mechanical composting and vermicomposting *Analysis of solid wastes
23	Kartha, Suresh A.	IIT Kanpur	Associate Professor	*Flow and transport through porous media *Heap leaching *Hydrology *Numerical modeling
24	Kaushik, Hemant B.	IIT Kanpur	Associate Professor	*Earthquake Resistant Design *Nonlinear Behaviour of Structures *Retrofitting of Structures *Finite Element Modeling
25	Kota, Sri Harsha	Texas A&M University, College Station	Assistant Professor	*Formation, transformation and chemical mechanisms of air pollutants near roadways. *Development of air quality models *Estimation of emission factors* Source apportionment of air pollutants *Regional air quality
26	Kumar, Abhishek	IISc Bangalore	Assistant Professor	*Seismic hazards of Urban Centers *Ground Motion Simulations *Liquefaction *Seismic hazard for Nuclear Power Plants *Site response studies for deep basins *Multichannel Analysis of Surface Waves (MASW) and Ground Penetration Radar (GPR) *Subsoil Investigations and Geotechnical Engineering *Soil Dynamics *Dynamic testing's on Piles *Ground Improvement, Reinforced earth structures *Deep Excavations
27	Kumar, Bimlesh	IISc Bangalore	Associate Professor	*Small scale studies of mixing tanks *Experimental Studies of Aeration Systems *Sediment Transport analysis *Pipeline analysis *CFD simulation *Surge analysis

Sl. No.	Name	PhD	Designation	Areas of Interest
28	Mahanta, Chandan (Head of the Department)	Jawaharlal Nehru University, New Delhi	Professor	*Water Quality *Sediment Dynamics in Fluvial Systems *Environmental Impact, Risk Assessment and Management *Environmental Geo-informatics *Engineering Geology
29	Mallikarjuna, Chunchu	IIT Delhi	Associate Professor	*Traffic flow theory and Modeling *Traffic data collection and analysis *Travel demand modeling
30	Maurya, Akhilesh K.	IIT Kanpur	Associate Professor	*Driver behaviour *Traffic flow theory and modeling *Traffic engineering
31	Mishra, Anil Kumar	Kyushu University, Fukuoka, Japan	Associate Professor	*Chemical compatibility studies of soil-bentonite mixtures *Waste (municipal, industrial and hazardous) management and disposal *Unsaturated soil mechanics
32	Murali Krishna, A.	IISc Bangalore, India	Associate Professor	*Soil Investigation *Reinforced Soil Structures *Geosynthetics and Ground Improvement *Earthquake Geotechnical Engineering
33	Nair, Archana M.	IIT Bombay	Assistant Professor	* Remote Sensing for Planetary Exploration * Petrophysical Modelling for Petroleum Exploration * Thermal IR Emission and Reflectance Spectroscopy * Hyperspectral Remote Sensing for Mineral Exploration * Remote Sensing and GIS for Hydrogeological studies
34	Pekkat, Sreeja	IIT Bombay	Associate Professor	*Urban Flood Modeling *Modeling and Control of Open Channel Flows *Infiltration and artificial recharge *Stochastic Hydrology *River Mechanics
35	Pradhan, Bulu	IIT Delhi	Associate Professor	*Durability studies in concrete *Corrosion of steel reinforcement and protection measures *High performance concrete *Mass transport in cementitious materials *Non-destructive testing of concrete structures *Construction management
36	Rajani, G. Indu Siva	IIT Madras	Assistant Professor	*Light weight concrete (Foam concrete) *Durability related studies on concrete *Shrinkage behaviour and thermal performance of concrete *Sustainable materials in construction *Lean concepts of construction *Construction management
37	Ryntathiang, Teiborlang. Lyngdoh	IIT Kharagpur	Professor	*Pavement Materials *Precast Concrete Block Pavement *Cast In-Situ Concrete Block Pavement
38	Sarma, Arup Kumar	Gauhati University	Professor	*Modeling & simulation in Free Surface Flow *Heuristic Method in Reservoir Optimization *GIS based Watershed Modeling

Sl. No.	Name	PhD	Designation	Areas of Interest
39	Sharma, Hrishikesh	Texas A&M University	Assistant Professor	*Impact and Blast Resistant Design *Reliability Analysis and Performance Based Engineering *Design and Optimization of Protection Measures
40	Shelke, Amit	The University of Arizona	Assistant Professor	*Ultrasonic wave propagation *Acoustic-Impact detection *Non-destructive testing
41	Singh, Arbind K.	IISc Bangalore	Professor	*Information Technology in Construction Engineering *Object-Oriented Programming *Constitutive modeling
42	Singh, Baleshwar	IIT Delhi	Professor	*Marine Geotechnology *Modelling of Onshore & Offshore Foundations *Soil Stabilization & Ground Modification *Pavement Subgrade & Site Characterization
43	Singh, K. Darunkumar	Southampton University	Professor	*Structural Analysis and Design *Finite Element Method *Fracture and Fatigue Mechanics
44	Singh, Laishram Boeing	IIT Madras	Associate Professor	*Public Private Partnerships *Risk Management *Construction Management
45	Sreedeeep, Sekharan.	IIT Bombay	Professor	*Behavioral studies on unsaturated porous media *Characterization of geo-materials (soils and rocks) *Thermal characteristics of geo-materials *Contaminant transport and retention studies *Waste containment studies *Landslides
46	Siddagangaiah, Anjan Kumar	IIT Madras	Assistant Professor	*Analysis and Design of Pavement Structures *Pavement Material Characterization *Pavement Construction and Recycling *Pavement Management Systems *Pavement Evaluation using NDT *Forensic Investigations of Pavement Failures
47	Talukdar, Sudip	IIT Kanpur	Professor	*Structural Dynamics *Bridge Engineering *Wind induced vibration & control *Nondestructive techniques

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

The Department at a Glance

Year of Establishment: 1995

Academic Programmes Offered:

Bachelor of Technology (BTech) in

- o Computer Science and Technology

Master of Technology (MTech)

Dual Degree (MTech+PhD)

Doctor of Philosophy

Total Faculty Strength: 29

- Professor: 10
- Associate Professor: 12
- Assistant Professor: 6
- Visiting Professor: 1

Total Student Strength: 539

BTech: 343

MTech: 82

PhD: 101

MTech+PhD: 13

New Students Joined in 2017-2018: 139

BTech: 80

Mtech: 45

PhD: 14

MTech+PhD: NIL

LABORATORY FACILITIES

1. **Multimedia lab:** Multimedia lab has been set up in 2012 as a research project lab which mainly focuses on computer vision, deep learning, multimedia security, adaptive video streaming etc. Currently five Ph D students, three M. Tech. students and four B. Tech. students are working in this lab. 2 PhD students are graduated from this lab. There are two sponsored projects are currently going on in this lab. 14 journal papers in top tier international journals and more than 15 conference papers in different premier forums have been published from this lab in last 5 years. Multimedia Lab is well equipped for state-of-art research in multimedia, image and video processing domain providing IBM X3500 M4 sever, HP: Z420 Xeon E5 workstation, SONY HDR PJ820 camcorder, SONY LED KDL55W950 display facility, high end desktops, laptops and other necessary lab equipments.
2. **Robotics Lab:** Robotics Lab has open sourced an in-house developed Multi-agent emulator, nicknamed Tartarus. The so Written in SWI-Prolog, Tartarus, facilitates users to create overlay sort of network of nodes comprising either a single PC/laptop/embedded system or several such devices connected as a LAN (wired/wireless) and then program both static and mobile agents. Agents in Tartarus are basically programs written in Prolog. They can be programmed to perform tasks autonomously at select nodes and even migrate to others in the network they inhabit. Such agents can even be programmed to clone (copy and multiply) on-the-fly and then move around the network and execute tasks concurrently, providing a distributed and decentralized processing environment. These agents can also carry programs as payloads. Payloads could be written in Prolog or Python and executed at desired nodes. One could try out using other languages as well. Agents can communicate amongst one another and also with programs at a node. As of now, Tartarus can be run on Windows, Ubuntu and Raspbian operating systems. Tartarus can run on the Raspberry Pi. It can be used to sense the sensors on-board and also control the actuators (motors, relays, etc.) connected to the board.
3. **Open Source Intelligence Group** (<http://www.iitg.ernet.in/cseweb/osint/index.html>): The lab focuses on systematic acquisition of data at rest and stream from publicly available multi-modal heterogeneous data sources such as web, news publications, social media, social networks etc., and processing, and deriving actionable intelligence from the acquired data. Major activities of the group include real time event detection and tracking, topic modeling, sentiment analysis, social network analysis, terrorist network analysis.
4. **Computer Networks & Security:** The CNS research group at IIT Guwahati works on projects that cover a diverse range of experimental and theoretical research, including Wireless Mesh, Ad Hoc and Sensors Networks, High Speed Networks, Network Architecture and Design, Computer and Network Security, Secure Multimedia Communications and Intrusion Detection Systems. The researches aim at developing low cost and effective solutions for communication and media technology with a focus of blooming technologies for Indian context, specifically the North East Region. At the same time, our theoretical research targets the global developments of networking and security technologies, standards and policies while addresses the design of future network architecture.
5. **User-centric Computing and Networking** (<http://www.iitg.ernet.in/cseweb/uccn/>): The lab focuses on the design and development of applications for computing devices that caters to heterogeneous user groups. The user-centric computing paradigm (otherwise known as the human-computer interaction) is applied in the design of applications used in large-scale content delivery, to ensure good quality of experience to the consumers on heterogeneous devices and networks. The challenges that arise in the development of user-centric networked applications are addressed both from theoretical as well as practical perspectives. This lab is equipped with Tobii eye tracker (model: X2-60) and associated software for usability studies, Mobile Devices (Android, iOS, Windows), Laptops, Tablets, Smart Phones, SDK Tools for Android, iOS, Windows Application Development, Desktop PCs, High performance computing servers, Wireless and Wired Gigabit Routers, Reconfigurable routers (built using 1Gbps Digilent NetFPGA Cards).
6. **Computer Architecture & Embedded Systems:** The lab focuses on cutting edge research and technology innovation in the area of VLSI design, testing, verification, real time systems and scheduling, NOC design, multi core architecture and scheduling and cache design for multi core. Under this group there are three numbers of special labs namely Picle Lab, MARS Lab, RTDS Lab, VLSI Lab.
7. **Hardware and Peripherals Lab:** The Department hardware laboratory is equipped with educational tools to promote better understanding of computer hardware and peripherals among the students. 8085/86 Microprocessor Trainer kits and 8031 Microcontroller kits are used to provide hands on experience to students about basic hardware. New PIC based microcontrollers and FPGA boards have also been acquired. These are supported by Colour Logic Analyzer and Pattern Generator, Function/Arbitrary wave generator, digital oscilloscopes, Wireless Transmitter/Receiver pairs, Data acquisition/ Switch units, TDM pulse code modulator/transmitter and demodulator/receiver and other similar essentials.
8. **Department UG-PG Student Soft Labs and RS Workspace facility:** There are three numbers of BTech soft lab (120

seating capacity each) for UG students, two numbers of MTech soft labs (60 seating capacity each) for PG students and three numbers of RS lab (164 numbers of workspace) for departmental research scholars

MAJOR EQUIPMENTS AND FACILITIES ACQUIRED

6 Nos. of DELL Power Edge R430 High Performance Computational Servers with DELL NX 3230 8 TB Network Attached Storage, DELL S 4048-ON 10/40 GbE Open Flow Switch with 1400 Gbps switching speed with Open Flow SDN support. GPU grid computing facility with 164 GB of GPU memory and 51456 Cuda cores.

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Algorithms; Computational Geometry; Systems Biology (Bio-computing); Bio-inspired Robotics and related algorithms; Intelligent Mobile Agent Based Cyber-Physical Systems; Human-Computer Interaction; Speech Processing; Multimedia: Image and Video Processing; Machine Learning; Information Retrieval; Data Mining; Web Mining; Formal Verification; Embedded Systems; Multi-processor Computer Architecture; Real-time Systems; Computer Security; Networks; Distributed Systems.

SEMINARS/WORKSHOPS/CONFERENCES/UNIVERSITIES/ORGANIZATIONS/INVITED LECTURES

Sl. No.	Name of Faculty (Convenor/ Co-ordinator, etc.)	Name of Sem./ Wor./Con.	Funded By	Date	International/ National	No. of participants
1	Purandar Bhaduri	GIAN Course	MHRD	1-5 Jan 2018	International	49

AWARDS AND HONOURS

Purandar Bhaduri awarded IEEE Senior Membership by IEEE in October 2017

STUDENTS' ACHIEVEMENTS

- PhD scholar Abhishek: Google Unrestricted Grant of US\$1500
- Bala Prakasa Rao Killi received Best Paper award at COMSNETS conference, Jan 2018
- Bala Prakasa Rao Killi received Travel Grant for attending COMSNETS conference, Jan 2018
- Mousum Handique, Jatindra Kumar Deka, Santosh Biswas and Kamalika Datta received Best Paper Award - IEEE ENCON, Nov 2017
- Sonia was awarded SMC 2017 Student Travel Grant at the IEEE SMC 2017 conference held at Banff, Canada on Oct 2017
- Sonia: IEEE Systems, Man, and Cybernetics (SMC) 2017 Student and Young Professional Travel Grant, 2017

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1	Anand, Ashish	Nanyang Technological University, Singapore	Associate Professor	Machine Learning and its application in computational biology, Systems Biology, Evolutionary Algorithms
2	Awekar, Amit C.	North Carolina State University, Raleigh, NC, USA	Assistant Professor	Data Mining
3	Barua, Gautam	University of California, Santa Barbara, USA	Professor	Operating Systems, Distributed Systems, Networks, Database Management Systems
4	Baruah, Rashmi Dutta	Lancaster University, United Kingdom	Assistant Professor	Evolving Intelligent Systems, Computational Intelligence, Online Machine Learning, Learning from Data streams
5	Bhaduri, Purandar	Washington State University, Pullman	Professor	Formal Modelling, Synthesis and Verification of Embedded Systems
6	Bhattacharya, Samit	IIT Kharagpur	Associate Professor	Human Computer Interaction, User Modeling, Model Based Evaluation of Interactive Systems, Rehabilitation Engineering
7	Biswas, Santosh	IIT Kharagpur	Associate Professor	Networking, Fault Tolerance, VLSI Testing, Embedded Systems

Sl. No.	Name	PhD	Designation	Areas of Interest
8	Das, Pradip Kr.	University of Delhi	Professor	Digital Signal Processing, Speech Processing, Man-Machine Intelligence Systems
9	Deka, Jatindra Kr.	IIT Kharagpur	Professor	Formal Modelling and Verification, CAD for VLSI and Embedded Systems (Design, Testing and Verification), Data Mining
10	Goswami, Diganta	IIT Kharagpur	Professor	Distributed Systems, Software Engineering
11	Inkulu, R.	IIT Chicago	Associate Professor	Computational Geometry, Graph Algorithms
12	Jose, John	IIT Madras	Assistant Professor	Computer Architecture, Network on Chips (NoC), Memory system design for multicore processors
13	K., Benny George	Tata Institute of Fundamental Research, Mumbai	Assistant Professor	Word combinatorics, algorithms and combinatorics
14	Kapoor, Heman-gee Kalpesh	London South Bank University, UK	Professor	Multiprocessor Computer Architecture, Formal Methods, Network-on-Chip design, Asynchronous systems
15	Karfa, Chandan	IIT Kharagpur	Assistant Professor	Formal Verification, Electronic Design Automation with special interest in High-level Synthesis, Embedded System Design and Verification, Verification of Compiler Optimizations
16	Karmakar, Sush-anta	IIT Kharagpur	Associate Professor	Distributed algorithms, fault-tolerance, distributed algorithms for ad hoc and sensor networks
17	Kesh, Deepanjan	IIT Kanpur	Assistant Professor	Computational Commutative Algebra, Data Streaming
18	Malhotra, V. M.	-	Visiting Pro-fessor	-
19	Mitra, Pinaki	Simon Fraser Univer-sity, Canada	Associate Professor	Computational Geometry, Parallel Algorithms, Randomized Algorithms, Optimization
20	Nair, Shivashankar B.	Amravati University, Amravati	Professor	Artificial Intelligence, Intelligent and Bio-Inspired Robotics, Emotional Robots, Mobile Agent based systems, Artificial Immune Systems, Cyber-physical Systems, Natural Language Processing, Genetic Algorithms, Fuzzy Systems & Neural Networks
21	Nandi, Sukumar	IIT Kharagpur	Professor	Networks (Specially: QoS, Wireless Networks), Computer and Network Security, VLSI
22	Rao, S. V. (Head of the Department)	IIT Kanpur	Professor	Computational Geometry and Its Applications
23	Sahu, Aryabartta	IIT Delhi	Associate Professor	Advance Computer Architecture, Multicore Parallel Programming and Compiling, Embedded System, VLSI and FPGA Design
24	Sajith, G.	IIT Kanpur	Professor	External Memory Algorithms, Algorithmic Game Theory, Parallel and Distributed Algorithms, Com-plexity Theory
25	Saradhi, V. Vijaya	IIT Kanpur	Associate Professor	Machine Learning, Kernel Methods, Data Mining and their applications
26	Sarkar, Arnab	IIT Kharagpur	Associate Professor	Real-Time and Embedded Systems, Computer Architecture, Algorithms

Sl. No.	Name	PhD	Designation	Areas of Interest
27	Singh, Sanasam Ranbir	IIT Madras	Associate Professor	Web Search Engine, Machine Learning, Information Retrieval, Data Mining especially in the area of Web Search Engine
28	Sur, Arijit	IIT Kharagpur	Associate Professor	Information Hiding: Steganography and Steganalysis. Multimedia Security: Image and Video Watermarking. Network Security: Intrusion Detection System and Network Steganography
29	Venkatesh, T.	IIT Madras	Associate Professor	Computer Networks

DEPARTMENT OF DESIGN

The Department at a Glance

Year of Establishment: 1998

Academic Programmes Offered:

o Bachelor of Design (BDes)

Master of Design (MDes)

Doctor of Philosophy (PhD)

Total Faculty Strength: 24

- Professor: 5
- Associate Professor: 3
- Assistant Professor: 15
- Visiting Faculty: 1

New Faculty Members Joined: 1

- Visiting Faculty: 1

Total Student Strength: 308

BDes: 179

MDes: 49

PhD: 80

New Students Joined in 2017-2018: 80

BDes: 43

MDes: 25

PhD: 12

LABORATORY FACILITIES

I. Ergonomics Laboratory

Ergonomics laboratory at Department of Design, IIT Guwahati was set-up in 1999 under leadership Prof. Debkumar Chakrabarti. This is a well-equipped laboratory with various basic and applied research facilities for both physical and cognitive ergonomics. Apart from equipment for traditional ergonomics evaluation, modern sophisticated equipments are available for virtual ergonomics evaluation and cognitive workload study. Four (04) faculty members (Prof. D. Chakrabarti, Dr. S. Karmakar, Dr. S. Pal and Dr. U.R. Salve) and 18 PhD students are currently associated with this laboratory. Facilities available in the laboratory include (a) Anthropometric measurement kit, (b) Equipment/ tools for biomechanical analysis, (c) Kit for environmental variable measurement, (d) Tools/equipment for cognitive workload analysis, (e) Digital human modeling software for virtual ergonomics evaluation, (f) Eye-tracker for visual attention analysis, and (g) Equipment for physiological variable analysis (ECG, EMG, EEG etc.).

II. Photographic Lab

III. Computer Lab

IV. Workshop/Design lab

V. Media Lab

VI. Material lab

VII. Embedded Interaction lab

VIII. E-Kalpa lab

IX. Usability Engineering and HCI Lab

X. Product Design & Development Studio

XI. Animation research lab

XII. Visualization lab

XIII. Sustainability and social Innovation Lab

Design for Sustainability (DfS) is an emerging and significant domain. It is also one of the prime needs of the hour considering the burden of human consumption and production. In order to create sustainable human consumption and production, a complete revamp of the consumption structure is needed. Through the SSI Lab, the Department of Design at IIT Guwahati, aims to foray into this domain.

Vision-To promote and contextualize sustainability through R&D along the three pillars of sustainability: social, economic and environmental.

The objectives of the lab are:

- To provide infrastructure and guidance to student projects related to DfS.
- Conduct training sessions for interested local institutions and bodies in the application of DfS.
- Research into DfS, Sustainable Frugal Design & developing case studies in DfS through execution of projects.
- Development of course material related to DfS.
- Developing tools & methodologies for the implementation of DfS in the emerging, marginalized & industrialized contexts.

XIV. Visual Communication studio

XV. 3 D Printing Lab

XVI. Master Craftsman Lab

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Physical and Cognitive ergonomics aspect of product design evaluation, Product Service System Design for Sustainability, Product Design in Agricultural Machinery, Comic studies, Game design, Design for Users with varying Tech Readiness, Multimodal and Assistive User Interface Design, Speech Based Interfaces. Human Computer Interaction, Virtual Reality, Input Interactions for Flexible and Deformable Devices

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Prof. Pradeep Yam-miyavar	Interact 2017	IIT Bombay	25-29 Sep 2017	International
Ravi Mokashi Punekar	Workshop on 'Smart Cities'	IIT Madras	6-7 Feb 2018	International
Sharmistha Banerjee	GCRF Ocean Plastics India Workshop	IISc Bangalore	28-29 Mar 2018	International
Sharmistha Banerjee	Intermediate Meeting of the LeNSin Project	Curitiba, Brazil	3-5 Oct 2017	International
Pankaj Upadhyay	GCRF Ocean Plastics India Workshop	IISc Bangalore	28-29 Mar 2018	International
Supradip Das	TED Mint 2017	Sweden	20- 25 Nov 2017	International
Prof. Utpal Barua	International Shiva festival, 2018	Sivasagar, Assam	13-16 Feb 2018	International

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Prof. Utpal Barua	9 th Asian International Art Exhibition	Qingdao City, China	13-19 Oct 2017	International
Prof. Utpal Barua	International Friendship painting symposium cum cultural festival 2018	Kokrajhar, Assam	17-23 Mar 2018	International
Avinash Shende	Workshop on Form studies	IIT Kanpur	11-16 Dec 2017	National

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Dr. Sougata Karmakar	Ergonomics and Military Environment	Defence Institute of Physiology & Allied Sciences (DIPAS)	Timarpur, Delhi	9 Mar 2018
Dr. Sougata Karmakar	Virtual Ergonomics for Product Design	PEC University of Technology,	Chandigarh	26 Sep 2017
Keyur Sorathia	Educational Interfaces Beyond Traditional UIs	University of Tampere, Finland	Tampere, Finland	15 Dec 2017
Keyur Sorathia	ICTD in Healthcare: Interventions in Assam, India	IISc Bangalore	Bengaluru	15 Oct 2017
Keyur Sorathia	Potential of Flexible and Deformable Devices-Input Interaction Perspective	IIT Bombay	Mumbai	16 May 2017
Sharmistha Banerjee	Sustainable Product-Service System Design	IIT Guwahati	Guwahati	18 Mar 2018
Swati Pal	Lectures delivered on a range of topics in the field of Ergonomics, such as, Anthropometry, Workplace design, HTA and Error prediction, Basics of Cognitive Ergonomics, Process study and its application in real-life scenario	IIT Bombay	Mumbai	24 Jul-4 Aug 2017
Swati Pal	Lectures on Environmental Ergonomics, e.g., Occupation health and safety and effect of dusts, heat and light, Design of Personal Protective Equipment. Conduction of project (Design of Hand tool) on Applied Ergonomics in Product Design	IIT Bombay	Mumbai	5-16 Feb 2018
Supradip Das	Ideation Tools	IIT Hyderabad	Hyderabad	30 Jun 2017
Supradip Das	Bamboo Furniture	IIT Gandhinagar	Gujarat	15-17 Sep 2017
Supradip Das	Innovations in Entrepreneurship	Lovely Professional University	Punjab	27-29 Oct 2017
Abhishek Shrivastava	Design Workshop	Central Institute of Technology	Kokrajhar	31 Oct-1 Nov 2017
Urmi R. Salve	Basic Ergonomics for Design	NID Kurukshetra	Kurukshetra	3-13 Oct 2017
Prof. Pradeep Yammiyavar	Future of Design Education - Design program Curriculum and structure at IITG	India Design Council. India-UK Design Education	NID Ahmedabad	5-6 May 2017

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Prof. Carlo Vezzoli	Politecnico-di-Milano, Italy	Sustainability for All	10 Feb 2018
Prof. A. G. Rao	IIT Bombay	Design Research–Trends and Directions	28 Mar 2018
Mr. Dilipan	Product Designer and Design Consultant	Product Design in Indian Industry	25 Mar 2018
Prof. Carlo Vezzoli	Politecnico di Milano, Italy	Designing Sustainability for All - Institute lecture	12 Mar 2018
Prof. Carlo Vezzoli	Politecnico di Milano, Italy	LeNSin pilot course 2 on - Sustainable Product Service System Design	12-23 Mar 2018
Prof. Brenda Garcia Parra	UAM, Mexico	LeNSin pilot course 2 on - Sustainable Product Service System Design	12-23 Mar 2018
Prof. Alinne Sanchez Paredes	UAM, Mexico	LeNSin pilot course 2 on - Sustainable Product Service System Design	12-23 Mar 2018
Prof. Prakash Apte	IIT Bombay	Systematic Innovation with TRIZ	4-8 Sep 2017
Sushma Chakravarty	FCB Uika (Mumbai)	To conduct a Workshop on Creative Minds Expressive hands.	4-8 Sep 2017

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Sl. No.	Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./ Wor./Con.	Funded By	Date	International/ National	No. of participants
1	Ravi Mokashi Punekar, Pankaj Upadhyay, Sharmistha Banerjee	2 nd Pilot Course on Design for Sustainability	European Union	10-22 Feb 2018	International	40
2	Ravi Mokashi Punekar, Sharmistha Banerjee, Pankaj Upadhyay	LeNSin pilot course 2 on–Sustainable Product Service System Design	Erasmus	12-23 Mar 2018	National	50

AWARDS AND HONOURS

- Prof. Pradeep Yammiyavar was conferred the MHRD “Teaching Innovation Award – 2016” under the PMMMN Mission of the Govt of India which was announced in 2017.
- Dr. Avinash Shende won the Bharat Jyoti Award “India Glory Award” for outstanding work done for the people of North Eastern Region.
- Dr. Avinash Shende was honored as “Best Citizen of the year 2018” by International Publishing House, New Delhi

STUDENTS’ ACHIEVEMENTS

- Design Challenge ‘Design Enabled Digital Technology for Social Impact’ – Delhi Design Festival, February 23-28, 2018. Second Prize won by Deepshikha for designing a conceptual mobile application “CHAKRA” to empower handloom weavers of India through digital retail.
- ACM SIGGRAPH Travel Scholarship awarded to Akriti Kaur to attend VRST 2017, November 8-10, Sweden
- ACM Student Ambassador at the 50th Turing Awards, San Francisco, June 23-24, 2017
- Participated in Global Grad Show in Dubai from 13th to 15th Nov 2017 for the MTP project of Mr. Rijas M.P under the guidance of Assistant Professor Supradip Das.

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1	Banarjee, Sharmistha	-	Assistant Professor	Design for sustainability, Boi-inspired design ,Medical product Design
2	Barua, Utpal	IIT Guwahati	Professor	Graphic Design, Design drawing and Visualisation, Visual design Principles and applications, Indian Symbology
3	Baruah, Nikhileswar	-	Visiting Faculty	Art and Aesthetics, Representation Techniques, Culture and Society
4	Bokil, Prasad (Upto 15.01.2018)	IIT Bombay	Assistant Professor	Visual language, Information design, Type design Game design
5	Chakrabarti, Debkumar	University Colleges of Science, Calcutta	Professor	Ergonomics Research, Human Compatibility Factor, Design ergonomics, product Environment Interface Design, Occupational Health
6	Das, Amarendra Kumar	IIT Guwahati	Professor	Industrial Design, Rapid Prototyping and tooling, space Design, Environment Graphics, Design for Disabled
7	Das, Supradip	-	Assistant Professor	Origami Inspired Product Development, Toy for tomorrow, Paper Craft, Transformable furniture, Structural packaging design
8	Dhar, Debayan	IIT Guwahati	Assistant Professor	Human Computer Interaction (HCI) Design, Instructional Design, User Experience Design, Psychological Studies in Design, Usability Engineering
9	Kumar, D. Udaya (Head of the Department)	IIT Bombay	Associate Professor	Topography, Type Design, Information Graphics, Motion Graphics, design Research, Exhibition Design, architecture
10	Gokhale, Sheetal M.	-	Assistant Professor	Film & Video, Animation Graphic Design
11	Iqbal, Shareka	-	Assistant Professor	Adaptive Resue ,Solar Passive Architecture
12	Kalita, Pratul Chandra	IIT Guwahati	Assistant Professor	Design Management. Design Method, Design for Development
13	Karmakar, Sougata	Bharathiar University	Associate Professor	Ergonomics, Human Factor, Design and work Environment, Design and Occupational health
14	Madhukailya, Mriganka	-	Assistant Professor	Short Film, New Media theory, Video Art, Documentary Film, Participatory Theory
15	Majhi, Manoj	IIT Guwahati	Assistant Professor	Animation, Special Effects, Cartooning
16	Monga, Charu	-	Assistant professor	Visual communication, Design Research, Visual Ethnography, Film Making, Animation, Game design, Edutainment.
17	Nath, Nanki (Upto 15.12.2017)	IIT Bombay	Assistant Professor	Graphic Design, Typography, Content development, Photography
18	Pal, Swati	University of Gujarat	Assistant Professor	Ergo Design& Innovation, physical Ergonomics, Design 7 biomechanism, Occupational Health.
19	Punekar, Ravi Mokashi	IIT Guwahati	Professor	Industrial Design, Space Design, Facility Design, Environmental Graphics, Design for disabled
20	Roy, Swaroop (Upto 11.08.2017)	-	Assistant Professor	Automobile Design, Concept design, Product sketching and rendering, Advance Form

Sl. No.	Name	PhD	Designation	Areas of Interest
21	Salve, Urmi Ravindra	University of Calcutta	Assistant Professor	Human factor engineering, occupational Ergonomics, Research Methodology
22	Shinde, Avinash	IIT Guwahati	Assistant Professor	Product Design, Furniture Design, Lighting design
23	Srivastava, Abhishek	IIT Bombay	Assistant Professor	Interaction Design, Design for Development, New Media, graphic Design & cartooning
24	Singh, Abhishek	-	Assistant Professor	Automotive design, Product Design, Graphic Design, Design Research
25	Sorathia, Keyur	IIT Guwahati	Associate Professor	Interaction Design, Gesture controlled User Interfaces, Design for development
26	Upadhyay, Pankaj	-	Assistant Professor	Product design, Industrial Design, Design for Manufacture, Consumer product Design, Industrial Equipment design
27	Yammiyavar, Pradeep	Indian Institute of Science, Bangalore	Professor	Human Computer interaction Design

The Department at a Glance

Year of Establishment: 1995

Academic Programmes Offered:

Bachelor of Technology (BTech) in

- o Electronics and Communication Engineering
- o Electronics and Electrical Engineering

Master of Technology (MTech) in

- 1) Signal Processing
- 2) VLSI
- 3) Power and Control
- 4) Communication Engineering
- 5) RF and Photonics

Dual Degree [MS (Eng.) + PhD]

Doctor of Philosophy (PhD)

Total Faculty Strength: 43

- Professor: 12
- Associate Professor: 7
- Assistant Professor: 24

New Faculty Members Joined: 6

- Assistant Professor: 6

Total Student Strength: 881

BTech: 567

MTech: 116

PhD: 180

MS+PhD: 18

New Students Joined in 2017-2018: 190

BTech: 115

MTech: 56

PhD: 17

MS+PhD: 2

DEPARTMENT OF ELECTRONICS AND ELECTRICAL ENGINEERING

LABORATORY FACILITIES

The Department of EEE has 25 laboratories which are equipped with state-of-the-art equipment and software. These laboratories are used for both instructional purposes and carrying out R&D activities in the various areas of interest. The list of laboratories presently functioning in the Department is as follows:

Name of Labs

1. Power System Lab (Instructional)

The Power Systems Laboratory is well-equipped with several experimental setups and several software packages for real time experiments. The facilities include overcurrent, under voltage and differential relays. The major equipments in the Power Systems Laboratory include the following.

Relay Demonstration Setup:

- IDMT over current relay
- Instantaneous over current relay
- IDMT under voltage relay
- Current transformer
- Negative sequence relay
- Differential relay
- High Voltage AC/DC/Impulse setup

List of Softwares:

- PSS/E
- PSCAD
- DigSilent
- OptiFDTD
- OptiFiber
- NI Multisim

2. Electrical Machine Lab (Instructional)

The machine lab is equipped with all kinds of AC and DC motors and generators required for undergraduate lab session and research activities in the field. For the better understanding of control of various motors lab also has braking and drive modules for some motors.

3. Electronic Circuit Lab- I (Instructional)

4. Electronic Circuit Lab-II (Instructional)

The Electronic Circuits Lab – I & II mainly hold basic electronics lab for first year undergraduate students of all the departments. The labs are equipped with large number of set ups each containing cathode ray oscilloscope, function generator, digital multimeter, and multioutput DC power supply. The labs are well-stocked with electronic components like resistors, capacitors, diodes, transistors, analog and digital ICs. Experiments performed in the lab cover hardware design

and implementation of basic circuits which include rectifiers, transistor characteristics, comparators, combinational logic circuits, synchronous and asynchronous counters, latches, and opamp circuits.

5. Control & Instrumentation Lab-I(R&D)

The Control and Instrumentation Laboratory I focuses on the research and development activities related to Control Theory and Applications, Stochastic Systems, Robotics, Ultrasonic Instrumentation, Underwater Acoustics etc. Some of the current areas of interest include Robust and Adaptive Control theory, Relay Control Theory and Applications, Mobile Robotics and Multi-Agent Systems, MEMS and SAW Devices, Fractional Order Systems. Discrete Event Systems. Laboratory infrastructure includes personal computers for research scholars and a number of experimental set-ups, namely, Mobile Robot Platforms, Multi DOF manipulator, Twin Rotor MIMO System, Inverted Pendulum Systems, Level Control System.

6. Control & Instrumentation Lab-II(Instructional)

The Control and Instrumentation Lab II is the instructional laboratory used for lab courses such as control and instrumentation lab (UG), and applied control lab (PG). The laboratory has work benches equipped with advanced test and measuring instruments like 200 MHz DSO, DDS function generator, 5½ digit DMM, multioutput DC power supply, and PC. The lab is equipped with large number of transducers for measurement of physical quantities like temperature, displacement, level, force and strain, in addition to PLC, process calibrator, hot chamber, coupled tank system, motor speed control system and other facilities for instructional laboratory. The students' instruction is focused to learn the design and implementation of signal conditioning circuits and controllers like PID.

7. System Simulation Lab (Instructional)

The System Simulation Laboratory is a fully computerized laboratory equipped with highly configured PCs and various computational and simulation software like Matlab 7.3, Borland C++, FPGA Advantage from Mentor Graphics, Xilinx's ISE foundation, Zeland's IE3D EM simulation SW, Altera's Quartuswebpack, Electronics Workbench, MicroSim Design Lab (EDA software), Cadstar PCB Design, Elanix's Systemview, HP-Eesof, Hypersignal and Operating System such as HP Unix, Sun Solaris, Redhat Enterprise Linux, Microsoft windows 2003 and windows 2000/XP.

8. Embedded System Lab (Instructional)

Microprocessors and Embedded Systems Laboratory provides students with hands-on experience with building, programming, testing, and debugging processor based systems. For example, systems that students build may incorporate audio and various input devices. It is an instructional

tional laboratory. Lab courses like Digital Signal Processors Lab, Digital Circuits and Microprocessors Lab and Embedded Systems Lab are held here.

9. High Frequency Lab (Instructional + R&D)

High Frequency Laboratory at EEE, IIT Guwahati is a research cum teaching laboratory. Research works are carried out in the area of antennas, computational electromagnetics and microwave engineering. Lab courses like Microwave Engineering Lab, Communication Lab, Design Lab, etc. are held in HF Lab.

10. Power & Control Lab-I (R&D)

11. Power & Control Lab-II (R&D)

Research and Development Activities related to Power & Control areas are conducted in this lab. Research Scholars, MTech/ BTech students and Project Engineers working in these areas use this laboratory.

12. Communication and Networking Lab (R&D)

Research and Development Activities related to Communication & Networking areas are conducted in this lab. The Research Scholars, MTech/ BTech students and Project Engineers working in these areas use this laboratory.

13. Multimedia Analytics Lab (R&D)

This Laboratory was set up in the department of Electronics and Electrical Engineering (EEE), Indian Institute of Technology (IIT) Guwahati during July, 2013. The lab focuses on the research and development activities related to multi-modal (video, speech and text) analytics and applications of machine learning in vision and robotics.

14. Communication Lab-I (R&D)

15. Communication Lab-II (R&D)

16. Communication Lab-III (R&D)

Research Scholars working in different communication related areas use this lab.

17. VLSI Lab-I (R&D)

18. VLSI Lab-II (R&D)

VLSI design lab was setup in the year 2004 as an integral part of the department of Electronics and Electrical Engineering (EEE). Followed by commencement of PG (MTech) and Ph.D. programme in the field of VLSI design subsequently.

Ever since its inscription the VLSI lab has constantly been upgraded to match with the technologies of the modern era. The VLSI library integrated with the lab helps the students, researchers and all enthusiasts to acquire all the much needed concepts to deal with different practical experiments. The focus of this lab is widely spread towards different pros and cons of the entire upgrading VLSI domain. Development works at different levels like semiconductor device simulation, circuits & system design and research in

some recent trends like Biomedical signal processing has extensively been carried out.

19. VLSI-ADSP & Communication Lab (R&D)

The Department has set up a sophisticated DSP & Communication Laboratory with the state-of-the-art equipment from Analog Devices and Texas Instruments, and Real Time DSP Software from Hyperception Inc. The Department has also received a donation from Analog Devices Inc. consisting of hardware kits and Visual DSP software.

20. Signal Informatics Lab (R&D)

Research and Development Activities related to Security & Document Processing areas are conducted here. The Research Scholars and Project Engineers working in these areas use this laboratory.

21. Electro-Medical & Speech Lab (R&D)

The Lab was set up during 2004. The laboratory focuses on the research and development activities related to biomedical signal and image processing, speech signal processing, coding and technology areas. Some of the current topics of interest include speech enhancement, speaker recognition, children speech recognition, speech synthesis, stressed speech processing, fundus image processing, ECG signal processing, biometrics and handwriting data processing.

22. Image Processing and Computer Vision Lab(R&D)

The ongoing major activities in the Image Processing and Computer Vision(IPCV) Laboratory include music signal processing, histopathology image processing, denoising, video processing, image super resolution, image forensic, computer vision, image hashing, Gesture Recognition and HCI

23. Power Electronics Lab (Instructional)

The lab has started functioning from August 2015. It contains the major facilities required to perform undergraduate and postgraduate experiments related to power electronics. In addition, design of power electronic hardware, implementation of prototype and testing can be performed in the lab. DSP and FPGA controllers for power electronics applications also can be tested.

24. HPC and FPGA Design Lab (R&D)

High Performance Computing and FPGA Lab (HPC and FPGA Lab) was established in 2012 at Department of Electronics and Electrical Engineering, IIT Guwahati with initial support from IIT Guwahati and Nvidia. The work at HPC & FPGA Lab is focused towards exploring possibilities of high performance computing and FPGA based system design in various fields related to Electrical Engineering and Scientific Computing in non-electrical engineering disciplines.

Our group's mission is to carry out multidisciplinary research in reconfigurable, parallel and distributed computing as a basis for long-term partnership and collaboration amongst industry, academia, and government; focus on research in advanced computer architectures, algorithms, networks and

systems, both theoretical and applied; to carry out state-of-the-art research and development with collaborators with maximized synergy and pooled, leveraged resources. Being an educational institute, to enrich the education of high-quality students, has been the first priority. In turn, focus is to contribute knowledge and technologies in this field.

25. MTech Project Lab

The lab has started functioning from August 2016. This lab is specially designed for MTech student to perform experiments related to their MTech project.

26. BTech Project Lab

The lab has started functioning from August 2016. This lab is specially designed for BTech student to perform experiments related to their BTech project.

27. Signal Processing Lab (R&D)

The Lab has started functioning from 2016. Research and Development Activities related to Speech Processing, Image Processing, Biometric Face Recognition, Music Signal Processing, Machine Learning and Cleft Monitoring System areas are conducted here. The Research Scholars working in these areas use this laboratory.

EML: e-mobility lab: This is a new initiative for developing state of the art technologies for electric vehicles (EVs). The areas of work in this lab are:

- Electric motor design
- Power electronics converters of EVs
- Inductive charging systems
- Grid to vehicle interaction (G2V)
- Vehicle powertrain control algorithms

MAJOR EQUIPMENTS AND FACILITIES ACQUIRED

1. Opti System Version 14.2 or latest: Optical Communication System and Amplifier Design Software (3 users License), for Rs. 6,30,000.00
2. Permanent Management Synchronous Generator with coupled DC Motor, for Rs. 3,00,900.00
3. 20 KVA True Online Double Conversion UPS, Make:

Power One, Model: PPT20, for Rs. 3,31,103.00

4. Dynamic Spectrum Analyzer, for Rs. 5,60,500.00
5. Low Noise Preamplifier, for Rs. 2,49,000.00
6. PCB Design Software, Make: Altium, Model: 14-000-171-PCSR-EDU-5, for Rs. 4,24,800.00
7. COSMOL Multiphysics, Single User with RF Module and Wave Optics Module, for Rs. 2,44,650.00
8. Premium Squink Set (All-in-one desktop circuit printer, paste dispenser and pick and place. With Squink, printer and assemble PCBs in minutes include complete Squink Multilayer PCB Printer), for \$ 5,499.00
9. EEG100C: Electroencephalogram amplifier with accessories, for \$ 14,052.00
10. Opti Fiber Version 2.2.0 or latest: Optical Fiber Design Software, for Rs. 4,51,500.00
11. Function Generator, Make: RIGOL, Model: DG1022Z, for Rs. 7,56,000.00 (18 nos.)
12. Opti FDTD version 13 (5 network based license), for Rs. 5,90,000.00

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Image Processing, Computer Vision, Speech Processing, Biomedical Signal and Image Processing, Multimedia Signal Processing; Microwave, Antenna Design, Wireless Communication, Error Control Coding; Analog and Digital Design, MEMS, VLSI CAD, Photonics, Semiconductor Devices; Electrical Converters, Electric Drives, Smart Grids, Wind Energy, Solar Energy, Solar Photovoltaic, Power Electronics and Power Systems; Control Systems, Stochastic Systems, Relay Based Identification and Auto tuning, Control Systems, Control Theory Applications, Electrical machine design, contactless charging system for EVs, Pattern Recognition, Machine Learning, Multimedia Analytics

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

Major initiatives:

- i. A prototype for contactless charging system for EVs.
- ii. Development of a smart urban transportation system

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/National
Rohit Sinha	International Conference on Innovations in Electronics, Signal Processing and Communication (IESC)	Shillong, Meghalaya	6-7 Apr 2017	International
Kannan Karthik	International Conference on Smart Systems, Innovations and Computing (SSIC 2017)	Jaipur, Rajasthan	15-16 Apr 2017	International

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Nagarjuna Nallam	IEEE International Symposium on Circuits and Systems	Baltimore, MD, USA	28-31 May 2017	International
Sonali Chouhan	International Conference on Communication Devices and Networking (ICCDN) 2017	Sikkim	3-4 Jun 2017	International
Sonali Chouhan	3rd SERB School on Robotics	New Delhi	23-28 Jun 2017	National
Gaurav Trivedi	21st International Symposium on VLSI Design and Test (VDAT) 2017	IIT Roorkee	29 Jun-2 Jul 2017	International
Sonali Chouhan	8th International Conference on Computing, Communication and Networking Technologies	New Delhi	3-5 Jul 2017	International
Mahima Arrawatia	International Symposium on Antenna and Propagation and USNC-VSRI Radio Science Meeting (AP-SIURSI) 2017	San Diego, California	9-14 Jul 2017	International
Praveen Kumar	IEEE PES General Meeting 2017	Chicago, USA	16-20 Jul 2017	International
S. R. M. Prasanna	International Speech Communication Association (INTERSPEECH) 2017	Stockholm, Sweden	20-24 Aug 2017	International
Rohit Sinha	Interspeech-2017	Stockholm, Sweden	20-25 Aug 2017	International
Prabin Kr. Bora	4 th International Conference on Advances in Electrical Engineering (ICAEE) 2017	Dhaka, Bangladesh	28-30 Sep 2017	International
Chandan Kumar	43rd Annual Conference of the IEEE, Industrial Electronics Society (IECON2017)	Beijing, China	29 Oct-1 Nov 2017	International
Suresh Sundaram	International Conference on Document Analysis Recognition (ICDAR) 2017	Kyoto, Japan	9-15 Nov 2017	International
Sanjay Kr. Bose	IEEE TENCON 2017: Advanced Technology for Humanity	Penang, Malaysia	5-8 Nov 2017	International
Shaik Rafi Ahamed	IEEE TENCON 2017: Advanced Technology for Humanity	Penang, Malaysia	5-8 Nov 2017	International
Ramesh Kr. Sonkar	IEEE TENCON 2017: Advanced Technology for Humanity	Penang, Malaysia	5-8 Nov 2017	International
Prithwijit Guha	7th International Conference on Pattern Recognition and Machine Intelligence (PREMI) 2017	Kolkata	5-8 Dec 2017	International
Kannan Karthik	International Conference on Industrial and Information Systems (ICIIS 2017)	Peradeniya, Sri Lanka	15-16 Dec 2017	International
Prithwijit Guha	7th International Conference on Pattern Recognition and Machine Intelligence (PREMI) 2017	Kolkata	5-8 Dec 2017	International
Indrani Kar	Advances in Control & Optimization of Dynamical Systems (ACODS) 2018, India	Hyderabad	18-22 Feb 2018	International
Prithwijit Guha	24th National Conference on Communications	Hyderabad	25-28 Feb 2018	National
Sanjib Ganguly	International Conference on Technologies for Smart City Energy Security and Power(ICSESP)	Bhubaneswar	28-30 Mar 2018	International
Sonali Chouhan	Workshop on Wireless Sensor Networks	Indore	12 Mar 2018	National

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Prabin Kr. Bora	Matrix Estimation: An application to Signal Denoising	Manipal Institute of Technology	Manipal	May 2017
Praveen Kumar	Electromechanical Energy Conversion	Tianjin University	Tianjin, China	12-29 May 2017
Nagarjuna Nallam	One day workshop on CMOS RF Amplifiers	NIT Sikkim	Sikkim	7 Jun 2017
Ratnajit Bhat-tacharjee	"An Overview of Terahertz PCA AND PMA" in IEEE Indian Antenna Week 2017	Defence Institute of Advanced Technology	Pune	5-9 Jun 2017
Sonali Chouhan	Networked Embedded Systems for Robotics	IIT Delhi	New Delhi	23-28 Jun 2018
Ratnajit Bhat-tacharjee	"Microwave Power dividers: some recent trends" in Comptelix 2017 (International Conference on Computer, Communications and Electronics 2017)	Manipal University	Jaipur, Rajasthan	1-2 Jul 2017
Sonali Chouhan	Rendezvous of Computation, Communication, and Networks	IIT Delhi	New Delhi	3-5 Jul 2017
Amitabh Chatterjee	-	NIT Mizoram	Aizawl, Mizoram	7-8 Sep 2017
Ribhu	Spectrum Sensing in Cognitive Radios	IIIT Guwahati	Guwahati	6 Oct 2017
Salil Kashyap	What is 5G going to be? A perspective	IIT Guwahati	Guwhati	7 Oct 2017
Praveen Tripathy	Wind Energy Conversion System and Storage Technologies for AC microgrid	The Chief Engineer Shillong Zone under the aegis of HQ 101 Area	Shillong	27 Oct 2017
Praveen Tripathy	Introduction to Wide Area Monitoring in Power System	NEEPCO Shillong in Collaboration with NIT Meghalay	Shillong	31 Oct 2017
Shaik Rafi Ahamed	Efficient VLSI Architectures for Signal Processing Algorithms	K. L. University	Vaddeswar-am, Andhra Pradesh	5 Jan 2018
Harshal B. Nemade	(Colloquium) Surface acoustic wave devices and their applications	Indira Gandhi Centre for Atomic Research (IGCAR)	Kalpakkam, Tamilnadu	25 Jan 2018
Praveen Tripathy	Wide Area Monitoring and its Application to Power Systems	Tezpur University	Tezpur	29 Jan 2018
M. K. Bhuyan	Mathematical Approaches for Electrical Eng.	Tezpur University	Tezpur	30-31 Jan 2018
Shabari Nath	Power electronics for renewable energy systems	Tezpur University	Tezpur	1 Feb 2018
Chitralekha Mahanta	Designing Robust Controllers for Uncertain Systems	Tezpur University	Tezpur	2 Feb 2018
Kalpana Dhaka	Device-to-Device Communication	OWT 2018, MNIT Jaipur	Jaipur	2 Feb 2018
Kalpana Dhaka	Heterogeneous Cellular Networks	MNIT Jaipur	Jaipur	9-14 Feb 2018

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
M. K. Bhuyan	Computer Vision and Its Applications	Tezpur University	Tezpur	Feb 12 2018
Sonali Chouhan	Wireless Sensor Networks	SGSITS	Indore	3 Mar 2018
Prabin Kr. Bora	Digital Image Forensics	Tezpur University	Tezpur	15 Feb 2018
Prabin Kr. Bora	Linear Algebra and Probability for Signal Processing	Jorhat Engineering College	Jorhat	26 March 2018
M. K. Bhuyan	Signal Processing, Image Processing and Computer Vision, and Applications	Jorhat Engineering College	Jorhat	27 March 2018
M. K. Bhuyan	Deep Learning and Machine Learning	Gauhati University.	Guwahati	19-20 Mar 2018
Gaurav Trivedi	System VLSI Design	NIT Sikkim	Ravangala, Sikkim	9-11 Apr 2017
Gaurav Trivedi	Introduction to Computers	IIIT Bhagalpur	Bhagalpur, Bihar	28-31 Oct 2017
Gaurav Trivedi	Analog Electronics	NIT Mizoram	Aizawl, Mizoram	9-11 Nov 2017
Gaurav Trivedi	Invited Talks on “optimization techniques and its application for optimization of power grids and analog circuits”, “Smart Camera and Forensic Speech Processors”	University of Pardubice	Pardubice, Czech Republic	30 Nov-15 Dec 2017
Gaurav Trivedi	Introduction to SPICE	MTU, Imphal	Imphal, Manipur	22 Mar 2018
Gaurav Trivedi	Algorithms to VLSI	NIT Arunachal Pradesh	Yupia, Arunachal Pradesh	26 Mar-1 Mar 2018

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Prof. Radhakant Padhi	IISc Bangalore	Invited Talk: “Fascinating Applications of Optimal Guidance in Challenging Space Missions”	22.May 2017
Prof. Ram Bilas Pachori	IIT Indore	Deliver Talk	24.Aug 2017
Prof. Sharat Chandran	IIT Bombay	Deliver Talk	30 Aug-4 Sep 2017
Dr. Prem Kumar Patchaikani	General Electronics Global Research, Bangalore	Invited Talk in connection with Advanced MATLAB Applications to Robotics & Signal Processing 2017	7-8 Oct 2017
Dr. K. Samudravijaya	Tata Institute of Fundamental Research (TIFR), Mumbai	Invited Talk in connection with Advanced MATLAB Applications to Robotics & Signal Processing 2017	7-8 Oct 2017
Prof. Biswa Nath Datta	Northern Illinois University, USA	Numerical aspects of control systems Regards	21.Feb. 2018
Prof. Yuji Iwahori	Chubu University, Japan	Japanese Education System, Research Collaboration with IIT/G and Research in Computer Vision	10 Mar 2018

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Sl. No.	Name of Faculty (Convener/ Co-ordinator,etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
1	Prof. R.P. Paily, Prof. Harshal Nemade, Dr. N. Nallam, Dr. S.R. Ahamed, Dr. R. K. Sonkar, Dr. ArunTej M.	IEP on "Introduction to Analog and Digital VLSI Design"	MeitY	9-15 Apr 2017	National	30
2	Prof. R.P. Paily, Dr. N. Nallam, Dr. S.R. Ahamed, Dr. R. K. Sonkar, Dr. ArunTej M., Dr. Mahima Ar-rawatia	3 rd ZOPP Workshop under "Special Manpower Development Programme for Chips to System Design"	MeitY	6-7 Oct 2017	National	90
3	Dr. Indrani Kar	IEEE Workshop on Advanced MATLAB Applications to Robotics & Signal Processing (RASPMAT) 2017	Participant Registration Fees	7-8 Oct 2017	National	65
4	Prof. R. Sinha, S.R. M. Prasanna	GIAN Course on Brain-Computer Interfaces for Speech Communication: Theory and Applications	MHRD	26 Feb-2 Mar 2018	National	40
5	Prof. R. Sinha, S. R. M. Prasanna	GIAN Course on Speech Enhancement for Hearing Aids	MHRD	23-27 Jan 2018	National	45
6	Prof. R. Sinha, S. R. M. Prasanna	GIAN Course on Empirical Mode Decomposition and its Applications	MHRD	23-27 Oct 2017	National	35

PATENTS

Sl. No.	Name of Faculty and co researcher	Name	Date Applied/ Granted	Application No.
1	Kannan Karthik	Privacy Preserving Face Biometric Retrieval	2017	TEMP/E1/11220/2017CHE Ref no: 201741011081
2	P. K. Sharma, N. Nallam	A Cartesian Vector Modulating Downmixer for Self-Interference Cancellation	6 Mar 2018	201831008268
3	Dr. L. N. Sharma	Device for human speech production using 3-dimensional glottal vibrations	23 Feb 2018	201831006870
4	Mrutyunjay Maharana, Alakesh Nanda, Sisir Kumar Nayak, Niranjana Sahoo	Natural and force convection imposed accelerated thermal ageing simulator to predict the life of the insulating oil before using in transformer	5 Jan 2018	20171045816

Sl. No.	Name of Faculty and co researcher	Name	Date Applied/ Granted	Application No.
5	Moon Moon Bordeori, Mrutyunjay Maharana, Sisir Kumar Nayak, Niranjana Sahoo	Design and development of automated open beaker oxidative ageing assessment apparatus	5 Jan 2018	201731047043
6	Amit Kumar Baghel, Shashank Kulkarni, Sisir Kumar Nayak, Senthil Kumar	Parabolic Pyramidal Horn antenna	9. Feb 2018	201831002285
7	Mrutyunjay Maharana, Sisir Kumar Nayak, Niranjana Sahoo	Natural and forced convection imposed accelerated thermal ageing simulator to predict the life of the insulating oil before using in transformer	5 Jan 2018	201831013006

AWARDS AND HONOURS

1. Kannan Karthik: Received Best Paper Award for the Computer Vision Track-1 in SSIC-2017 for title "Purple Fringing Aberration Detection based on Content Adaptive Thresholds)
2. R. K. Sonkar and Chandan Kumar: Awarded Young Faculty Research Fellowship (YFRF) of Visvesvaraya PhD Programme of Ministry of Electronics & Information Technology, MeitY, Govt. of India for a period of 5 years.
3. R. S. Kshetrimayum:
 - i) IETE Journal of Research Best research oriented paper, 2017 Best Paper Award (Third Prize), IEEE ANTS, 2017.
 - ii) Elected as Fellow of Institution of Engineering and Technology (IET), UK, 2017.
4. Debabrata Sikdar: Awarded the "THE DOUGLAS LAMPARD ELECTRICAL ENGINEERING RESEARCH PRIZE AND MEDAL FOR 2016" for the best PhD thesis by Monash University, Australia for PhD thesis entitled "Engineering optical responses of plasmonic-metal-dielectric composite nanosystems". The award was given in the Department of Electrical and Computer Systems Engineering (ECSE) Awards Ceremony on 22 May 2017 in Melbourne.
5. M. K. Bhuyan: The paper entitled "Dense 3D Reconstruction of Endoscopic Polyp", authored by Dr. M. K. Bhuyan has been selected for the BIOIMAGING 2018 (PORTUGAL) Best Poster Award.
6. P.K. Bora and Rohit Sinha: S. K. Yadav, Rohit Sinha and P.K. Bora have been awarded the IET Signal Processing Premium Award 2017 for their paper titled

"Electrocardiogram signal denoising using non-local wavelet transform domain filtering", vol.9, issue 1, 2015, pp 88-96.

STUDENTS' ACHIEVEMENTS:

- a) Mr. Amit Kumar Baghel (Research Scholar) and Mr. Shashank S. Kulkarni (Project Staff) have been awarded the Gandhian Young Technological Innovation (GYTI) 2018 award for the project titled "Feasibility Study of Wireless Power Transfer using Metamaterial" from Honourable President of India in Rashtrapati Bhawan, New Delhi on March 19, 2018. The project work was carried out under the supervision of Dr. Sisir Kumar Nayak (Dept of EEE) and Mr. D. Senthil Kumar (MTRDC, Bangalore).
- b) Mr. Mathew Francis (Research Scholar, Dept. of EEE) received the Flytxt Fellowship Award for his paper titled 'Object Tracking with Classification Score Weighted Histogram of Sparse Codes' at the 7th International Conference on Pattern Recognition and Machine Intelligence (PReMI 2017) held at ISI Kolkata during 5-8 December, 2018.
- c) Niharika Baruah, Mrutyunjay Maharana, S. K. Nayak, and N. Sahoo received Best Poster Paper Award for "Comparative study of mechanical and electrical strength of kraft paper in nanofluid based transformer oil and mineral oil" 7th International Symposium on Electrical Insulating Materials (ISEIM), Toyohashi, Japan, 12-15th Sep 2017.
- d) Shaik Affijulla (PhD Student of NIT Meghalaya, Supervisor Dr. P. Tripathy, IIT Guwahati) received Power System Operation Corporation – 2018 (POSOCO-2018)

award under doctoral category for his PhD thesis title "Power System Protection using Estimated Dynamic Phasors"

SPECIAL MENTION

- a) Chandan Kumar: Organized and chaired special session in conference IEEE-IECON 2017 (held at China, Beijing): Design, Operation and Control of Smart Transformer in Power Distribution System by Chandan Kumar, Marco Liserre and Mario Paolone

- b) Somanath Majhi: Member of International Programme Committee, 3rd International Federation of Automatic Control Conference on Advances in PID Control to be held in Ghent, Belgium during May 9-11, 2018.
- c) Gaurav Trivedi: Tutorial Chair and chaired sessions in the conference VDAT2017 held at IIT Roorkee from 29 June – 02 July 2017

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1	Adda, Ravindranath	IIT Kanpur	Assistant Professor	Power Electronics, Distributed Generation and Power Quality
2	Agarwal, Satyam (From 27.06.2017)	IIT Delhi	Assistant Professor	Wireless communications and networks, MAC protocols, wireless network modelling and performance analysis
3	Ahamed, Shaik Rafi	IIT Kharagpur	Associate Professor	Adaptive Signal Processing, Mobile Communications, VLSI Signal Processing, Biomedical Signal Processing
4	Arrawatia, Mahima ((From 03.07.2017)	IIT Bombay	Assistant Professor	Energy Harvesting, RF Circuit Design, Microstrip Antennas
5	Bhattacharjee, Ratnajit	Jadavpur University	Professor	Electromagnetics, Microstrip Antennas, Microwave Engineering, Wireless Communication
6	Bhuyan, M. K.	IIT Guwahati	Associate Professor	Image and Video Processing, Computer Vision, Pattern Recognition and Human Computer Interactions (HCI)
7	Bora, Prabin Kumar	IISc Bangalore	Professor	Image Processing and Computer Vision
8	Bose, Sanjay Kumar	Stony Brook, USA	Professor	Modeling, Simulation and Analysis of Communication Networks
9	Chatterjee, Amitabh (Upto 01.12.2017)	University of California	Visiting Assistant Professor	Devices
10	Chouhan, Sonali	IIT Delhi	Assistant Professor	Wireless Sensor Networks, Coding Theory, Wireless Communications
11	Dandapat, Samarendra	IIT Kanpur	Professor	Signal Processing, Speech Processing, Biomedical Signal & Image Processing, Biomedical Instrumentation
12	Das, Smarajit	IISc Bangalore	Assistant Professor	Information theory, Error correcting codes
13	Dhaka, Kalpana	IIT Delhi	Assistant Professor	Cooperative Communication, Multi-hop relaying systems, Multiple-input multiple-output (MIMO) wireless communication system, Bluetooth 2.0+EDR Physical and MAC layer
14	Ganguly, Sanjib	IIT Kharagpur	Assistant Professor	Power distribution system planning and optimization, Distributed generation, Custom power devices, Evolutionary algorithms, Multi-objective optimization
15	Gogoi, Anup Kumar	IIT Kanpur	Professor	Electro Magnetics, Microwave Engineering, RF circuits, System Design
16	Guha, Prithwijit	IIT Kanpur	Assistant Professor	Computer Vision, Machine Learning, Robotics

Sl. No.	Name	PhD	Designation	Areas of Interest
17	Jacob, Tony	IIT Kanpur	Assistant Professor	Statistical Signal Processing and Information Theory
18	Kar, Indrani	IIT Kanpur	Associate Professor	Control Theory and Applications, Soft Computing Applications, Neural Network Based Adaptive Control, Applications of Fuzzy Logic and Neural Networks in Nonlinear Control, Kinematic and Dynamic Control of Robot Manipulators
19	Karthik, Kannan	University of Toronto, Canada	Associate Professor	Privacy Preserving Authentication and Multimedia Searches, Fine Grained Access Control, Image and Audio Comparisons in lower-dimensional Spaces, Blind Image Forensics and Image Phylogeny
20	Kashyap, Salil (From 24.07.2017)	IISc, Bangalore	Assistant Professor	Wireless communications and signal processing, Massive MIMO (a leading 5G wireless technology), Algorithm design for wireless systems and its performance analysis, Green communications, Cognitive radio
21	Krishnaswamy, Srinivasan	IIT Bombay	Assistant Professor	Control Systems, Cryptography
22	Kulkarni, Rishikesh Dilip (From 03.07.2017)	EPFL, Switzerland	Assistant Professor	Optical Metrology, Digital Optical Signal Processing, Digital Holography, Speckle Interferometry, Fringe Projection Profilometry
23	Kumar, Chandan	IIT Madras	Assistant Professor	Smart Transformer Application in Power System, Grid Connected Converters and Microgrid, Power Quality Improvement using STATCOM, DVR, UPQC, Predictive Control of Power Converters, Parallel Operation of Voltage Source Converters
24	Kumar, Praveen	Delft University of Technology, The Netherlands	Associate Professor	Optimisation of electrical motors and drives, Algorithm development for Multi-objective optimisation and multicriteria decision making in engineering systems, Simulation and design of electrical motors and actuators using Finite Element Methods (FEM), Analytical modeling of electrical motors for rapid simulation, Simulation and Analysis of Hybrid and Electric Vehicles
25	Mahanta, Anil (Upto 20.09.17)	IIT Delhi	Visiting Professor	Digital Signal Processing, High-speed VLSI structures for Signal Processing & Communication
26	Mahanta, Chitralkha	IIT Delhi	Professor	Control System Theory and Applications, Control of Nonlinear Uncertain Systems, Artificial Intelligence based Control, Identification and Control of Nonlinear Systems
27	Majhi, Somanath	University of Sussex, Brighton, UK	Professor	Relay Based Identification and Auto tuning, Control Systems, Control Theory Applications
28	Mallajosyula, Arun Tej	IIT Kanpur	Assistant Professor	Photovoltaics, Large Area Electronics, Organic and Organic-Inorganic Hybrid Semiconductor Devices and Layered 2D Materials
29	Nallam, Nagarjuna	IIT Delhi	Assistant Professor	Analog and RF integrated circuits
30	Nath, Shabari	University of Minnesota	Assistant Professor	Power Electronics, Application of Power Electronics to Power Systems.
31	Nayak, Sisir Kumar	IISc Bangalore	Associate Professor	Nanofluid for transformer, Metamaterial enhanced WPT, PV integration with grid

Sl. No.	Name	PhD	Designation	Areas of Interest
32	Nemade, Harshal B.	IIT Bombay	Professor	Electronic Instrumentation, Systems Design, Ultrasonic Instrumentation, Non-destructive testing, Electronic product design, EMI/EMC issues, Acoustic sensors, Under-water acoustics, Surface acoustic wave devices, MEMS
33	Palathinkal, Roy Paily	IIT Madras	Professor	VLSI and MEMS
34	Prasanna, S. R. Mahadeva	IIT Madras	Professor	Speech and Signal Processing
35	Rai, Brijesh Kumar	IIT Bombay	Assistant Professor	Communication Systems, Coding Theory
36	Rajesh, Alentallil	IIT Kanpur	Associate Professor	Coding and Modulation Techniques
37	Ribhu (From 11.04.2017)	IIT Roorkee	Assistant Professor	Signal Processing for Wireless Communication, MIMO Systems, Adaptive and Statistical Signal Processing
38	Sekhawat, Hanu-mant Singh	University of Twente, The Netherlands	Assistant Professor	System Theory, Applied Mathematics & Signal Processing
39	Sethi, Amit (Upto 05.07.2017)	Illinois, UIUC	Associate Professor	Computer Vision, Image Processing, Pattern Recognition, Image Processing, Visual Perception
40	Singh, Kshetrim-ayum Rakesh	NTU Singapore	Professor	Electromagnetic Band Gap, Filters, Metamaterials, Computational Electromagnetics and Periodic Structures
41	Sinha, Rohit (Head of the Department)	IIT Kanpur	Professor	Speech and Audio Processing, Speech Recognition, Signal Processing
42	Sikdar, Debabrata (From 03.05.2017)	Monash University, Australia	Assistant Professor	Plasmonics and metamaterials, Light-matter interaction in nanoscale, Dynamic tuning in plasmonicmetamaterials and metadevices, Plasmon-assisted optical switching, directional scattering, wideband absorption, ultrasensitive detection, tunable optical devices etc., Applications of Surface Plasmon Resonance and Surface Lattice Resonance
43	Sonkar, Ramesh Kumar	IIT Kanpur	Assistant Professor	Optoelectronics Device Characterization and fabrication, Microelectronics and III-V Compound Semiconductors, Photonics Integrated Circuits, Integrated Optics Fiber Optics Communication
44	Sundaram, Suresh	IIScBangalore	Assistant Professor	Pattern Recognition, Image / Video Processing and Computer Vision
45	Tripathy, Praveen	IIT Kanpur	Assistant Professor	Power system dynamics and stability studies, Wide Area Monitoring and Control of Power System, Optimal power dispatch and state estimation, Security analysis and control, Energy management system and distribution automation
46	Trivedi, Gaurav	IIT Bombay	Assistant Professor	Circuit Simulation (Analog & Digital) and VLSI CAD, High Performance Computing, Computational Biology and Solar Photovoltaics

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

The Department at a Glance
Year of Establishment: 1998
Academic Programmes Offered: Masters of Arts (MA) in o Development Studies Doctor of Philosophy (PhD)
Total Faculty Strength: 36 <ul style="list-style-type: none"> • Professor: 7 • Associate Professor: 14 • Assistant Professor: 13 • Visiting Professor: 1 New Faculty Members Joined: 9 <ul style="list-style-type: none"> • Visiting Professor: 1 • Assistant Professor: 8
Total Student Strength: 160 MA: 59 PhD: 101
New Students Joined in 2017-2018: 55 MA: 33 PhD: 22

LABORATORY FACILITIES

Language-Cognition Lab: The lab is engaged in research in language from a cognitive science perspective. We explore the relationship of human language with cognition, with culture as a possible third angle through studies of language processing in various domains.

Phonetics and Phonology Lab: Research on language and speech is an exciting area encompassing research in the fields of language technologies and human-computer interfaces in a way which can be employed to various ends ranging from language learning of intelligent systems to the learning capabilities of humans. To fulfill these ends this lab would like to start a modern academic research lab which is focused on the way speech is produced and comprehended. The lab will be involved with experimental investigations of speech processes and their acquisition. Topics include: articulatory movements, measurements of pressures and airflows in speech production, computer-aided waveform analysis and spectral analysis of speech, perception and discrimination of speech like sounds, speech prosody, models for speech recognition, speech disorders, and language acquisition. This laboratory will also play an important role in recording and archiving the languages of the North-East. Apart from that, the facilities in this laboratory will also promote advanced research on languages of the region.

The Sleep & Cognition Lab: is a specialized lab where research work in the area of cognition and sleep is being carried out. The present project is funded by the department of science and technology, GOI. This lab has few specialized equipments such as 40 channel Nihon-Khoden polysomnography system, 32 channel active electrode, EEG/ERP system and DC current brain stimulator for designing experiment.

Psychology Lab: Psychology laboratory is also used for conducting experiments in the area of social psychology and organizational psychology on regular basis by faculty and research scholars. Psychology lab has already initiated the process of procuring various instruments, which will be used for conducting lab sessions for under-graduate courses in Psychology.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

- i. Heavy duty printer-02 no.
- ii. STATA SEIS
- iii. Macbook Air-02 no.
- iv. Psychology lab equipment:
 - a) Tachistoscope Apparatus Electronic with Variable Time controls (16-2584-CS): 02
 - b) Stroop Effect Test (16-2581-CS): 20
 - c) Stop Watch [Timer] Racer Electronics [SWE] (16-2579-CS): 05
 - d) Muller Layer Apparatus – with stand (16-2555-CS): 10
 - e) Depth Perception Apparatus Electrical (16-2514-CS): 04
 - f) Mirror Drawing Apparatus [Simple for printed Star] with Star Paper (16-2548-CS): 10

- g) Mirror Drawing Apparatus Digital with timer and error counter (16-2551-CS): 05
- h) Memory Drum Apparatus – Digital [Eight Variable Speed] (16-2540-CS): 05
- i) Human Maze Learning Pointed electrical with reset 6 digit error counter (16-2529-CS): 10

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

The faculties in the HSS department carry out research in several fields of humanities and social sciences. This includes English and Indian literature, Linguistics, Economics, Psychology, Philosophy, Political Science, Archeology, Sociology, Development Studies and History. A new field Geography is introduced from August 2017. Faculties and doctoral students pursuing research within these disciplines have been engaged in teaching and research. Major areas of research include Dalit literature, Marathi literature, North-Eastern Archeology and Heritage Management, Commonwealth Literature, Aesthetics, Cultural Studies, Ecocriticism and Translations, Development Economics, Industrial Economics, Labour Economics, Phenomenology and Cognitive Science, Phenomenology and Religion, Ethical Issues related to Science and Technology, Organizational Behaviour, Human Resource Management, Social/Environmental Psychology, I-O Psychology, Literary and Cultural Theory, Microeconomics, Agricultural Economics, Environmental Economics, Econometrics, Philosophy of Technology, Applied Philosophy, Peace Studies, Critical Thinking, Applied Ethics, Philosophy of Education, Phonological theory with special interest in Optimality Theory, vowel harmony, Experimental approaches to Phonology and its acquisition, Social & Environmental History of Assam, Sociology of Science, Historical Sociology, Cognitive linguistics, Endangered and lesser known languages, Language typology, Sociolinguistics, Sleep and Information Processing, Macroeconomics, Applied Game Theory, Sociology of Gender, Sociology of Law, Sociology of Communication, Socio-economic understanding of climate risk and resilience, Urban Living and Sustainable cities, Development Economics, Informal Sector, Issues in Food Security and Social Security, Economics of Education, Identity issues of ethnic minorities, local governance, development policies, social movements, ethnic violence and conflict prevention, Health and Clinical Psychology, Phonetics, Phonology, Acoustic Phonetics, Tibeto-Burman tones, Psychoacoustics, Perception, Public Economics, Dynamic Economic Theory, Christianity, conversion, ethnic violence, kinship and family, urban issues, Socio-economic history.

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

Graduate Research Meet 2017: With the motto of 'Ideas, Innovation, Interdisciplinarity, Department organized the fourth edition of its annual research meet from 2-4 November 2017. This conference is a novel event organized by the incumbent graduate students of the Department under faculty mentoring. The Graduate Research Meet was conceptualised first in 2014 as a platform to provide the research scholars in the North East and across the country to showcase their re-

search, interact with their peers and receive mentorship from subject experts in a variety of fields. Student conferences are rare in India and young researchers in the humanities and social sciences often do not get opportunities for peer interaction and input on their research projects. Moreover, there is a significant gap in dialogue between graduate students of the North East and that of other parts of India. Organizing a national seminar in IIT Guwahati inviting students from all across India aims also to bridge this gap. The research scholars of IITG-HSS organize GRM every year with such realities and considerations in mind. The IIT Guwahati's HSS department is uniquely able to provide support in this respect in that it houses a multidisciplinary faculty comprising eleven disciplines from the humanities and social sciences.

This year's meet was a successful event with the Director of IIT Guwahati, Prof. Gautam Biswas inaugurating the Meet and well-known author and academic Prof. Nilanjana Gupta, Dept. of English Jadavpur University, delivering the keynote address, which was interestingly titled "The In(ter) discipline of Knowledge". Like every year, GRM '17 too drew participants from prestigious institutes outside Assam, like Jawaharlal Nehru University, Delhi University, IIT Delhi, IIT Bombay and IIT-ISM Dhanbad, TISS Bombay, Central University of Gujarat, Aligarh Muslim University, Centre for Studies in Social Science, Calcutta, Ambedkar University, Delhi. Participants were also from premier institutes of North Eastern region such as Gauhati University, TISS Guwahati, Assam University, North Eastern Hill University, Dibrugarh University, etc. The themes of the papers were varied and ranged across the disciplinary spectrum of humanities and social sciences. Upholding its motto, the 3-day seminar was divided into sessions that clubbed papers of different disciplines while having a certain continuity in narrative. These sessions were chaired by experts from institutes of Assam as well as outside. This is what sets GRM apart from other national and international seminars in the sphere of humanities and social sciences where most of the academic seminars centre on either specific discipline or themes. By now GRM has gained considerable recognition within Indian academia and with each passing year it is levelling up

in terms of organization and papers, carefully curated and animatedly discussed at the conference.

The Meet was sponsored by the Indian Council of Social Science Research (Delhi) with generous support from Oil India and the Indian Society of Labour Economics.

Linnaeus-Palme: Linnaeus-Palme is a Swedish exchange programme, introduced in May 2000, for teachers and students at undergraduate and master's level of higher education and aims at strengthening co-operation between institutions of higher education in Sweden and developing countries and thereby increasing global contacts in the world of higher education. The programme is administered by the International Programme Office for Education and Training and financed by Sida, Swedish International Development Co-operation Agency.

Linnaeus scholarships are meant for outbound Swedish participants abroad with partner institutions and Palme scholarships are for foreign participants to study under exchange with Swedish Institutions of higher learning. The underlying idea is mutual co-operation between institutions of higher education will enrich the countries involved and provide a basis for broader partnerships between them.

The Department of Humanities and Social Sciences, IIT Guwahati in collaboration with the Department of Human Geography and Ecology Division, Lund University, Sweden received the said grant for one year starting with January, 2017. Already two students from Lund University, Ms. Vera Julia Lindstom and Mr. Peter Overgaard Hagen have completed one semester (January-May, 2017) course in our department. Also a faculty member from Lund University, Dr. Yahia Mahmoud spent three weeks in teaching and giving seminars in the department during January, 2017. Two of our Masters students Ms. Shilpa Chaya Majumdar and Mr. Meledathu Thomas Kuriakose have completed courses for one semester in Lund University during Fall, 2017 and a faculty member of the department, Dr. Sambit Mallick has visited Lund University for the period 18 September-8 October 2017 under the said exchange programme.

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conference/Workshop/Symposium	Place	Date	International/ National
Sawmya Ray	Violence against Women	Central University, Agartala	6-7 Apr 2017	National
Pahi Saikia	Mid West Political Science Association	Chicago	6-9 Apr 2017	International
Shakuntala Mahanta	33rd South Asian Languages Roundtable	Adam Mickiewicz University Poznan, Poland	15-17 May 2017	International
Bodhisattva Sengupta	PET 2017	Paris	10-13 Jul 2017	International
Sambit Mallick	Science, Technology and Society	National Institute of Science Education and Research, Bhubaneswar	22-24 Jul 2017	National

Name of Faculty	Name of Conference/Workshop/Symposium	Place	Date	International/ National
Ngamjahao Kipgen	International Conference on Agriculture and Human Development in India: Indigenous Practices, Scientific Views and Sustainability	IIT Guwahati	8-9 Sep 2017	International
Sambit Mallick	Agriculture and Human Development in India: Indigenous Practices, Scientific Views and Sustainability	IIT Guwahati	8-9 Sep 2017	International
Mrinal Kanti Dutta	International Conference on Agriculture and Human Development	IIT Guwahati	8-9 Sep 2017	International
Sambit Mallick	9th Annual Meeting of the Society for the Study of New and Emerging Technologies	Beus Center for Law and Society, Phoenix, Arizona and Arizona State University, Arizona USA	9-11 Oct 2017	International
Rajshree Bedamatta	Risk Informed Programming	Guwahati	24-25 Oct 2017	National
Sambit Mallick	4 th India LICs Conference	New Delhi	2-4 Nov 2017	International
Sambit Mallick	43 rd ISS All India Sociological Conference	University of Lucknow	9-12 Nov 2017	National
Sambit Mallick	4 th International Conference on Poverty and Sustainable Development	Colombo, Sri Lanka	5-6 Dec 2017	International
Sambit Mallick	Odisha 2036: Society and Politics	Ravenshaw University, Cuttack	9-10 Dec 2017	International
Debapriya Basu	Theorising Space	Indian Institute of Space Science and Technology, Thiruvananthapuram	14-16 Dec 2017	National
Rajshree Bedamatta	Transforming the Food and Nutrition Landscape of Assam	Guwahati	15 Dec 2017	National
Mrinal Kanti Dutta	Sustainable Development and North East India in the Globalised Era	Manipur	29-30 Dec 2017	International
Pahi Saikia	Locating Northeast India: Human Mobility, Resource Flows, and Spatial Linkages	Tezpur	10-11 Jan 2018	International
Anamika Barua	World Economic Forum in Davos, Switzerland	University of Geneva, Switzerland	24-25 Jan 2018	International
Rajshree Bedamatta	UGC-Human Resource Development Centre	Gauhati University	2 Feb 2018	National
Rajshree Bedamatta	ICSSR sponsored Research Methodology for Faculty Development	IIT Guwahati	7 Mar 2018	National
Saundarjya Borbora	Policy Issues for Economic Development with Special Reference to North East India	Kamalpur, Tripura	16 Mar 2018	National
Saundarjya Borbora	Policy Issues for Economic Development with Special Reference to North East India	Kamalpur, Tripura	17 Mar-2018	National
Sukanya Sharma	Building Big? Global Scales of Monumentality, An Ethnoarchaeological Perspective	Kohima	17-18 Mar 2018	International

Name of Faculty	Name of Conference/Workshop/Symposium	Place	Date	International/ National
Pahi Saikia	The Age of Multilateralism and Connecting India's North East: Opportunities and Challenges	New Delhi	19-20 Mar 2018	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture/Talk	Name of Inst./Org.	Place	Date
Priyankoo Sarmah	Language and Sounds	Digboi College	Digboi	15 Apr 2017
Priyankoo Sarmah	A long introduction to speech sounds	IITG	Guwahati	16 May 2017
Mrinal Kanti Dutta	Importance of Referencing & Writing Style	B. H. College	Barpeta, Assam	8 Jun 2017
Priyankoo Sarmah	Tone Languages and their Features	Chitkara University	Chandigarh	30 Jun 2017
Sambit Mallick	Coercion, Consent and Contestation: Changing Scientific Practices in India	National Institute of Science Education and Research Bhubaneswar	Bhubaneswar	22 Jul 2017
Priyankoo Sarmah	Speech analysis with PRAAT	NEHU Shillong	Shillong	5 Aug 2017
Nachiketa Tripathi	Interpersonal Communication	IIT Guwahati and IChE	Guwahati	23 Aug 2017
Sawmya Ray	To Violate with Impunity: Everyday Constructions of Sexual Violence	Gauhati University	Guwahati	29 Aug 2017
Sawmya Ray	Feminist Research Methodology	Tripura University	Agartala	31 Aug 2017
Sawmya Ray	Domestic Violence and Law in India	Tripura University	Agartala	1 Sep 2017
Vasundhara Jairath	Land, Identity, Displacement and Development	Tripura University	Agartala	1 Sep 2017
Priyankoo Sarmah	Tibeto-Burman languages, Tones, Technology	Tripura University	Agartala	5 Sep 2017
Priyankoo Sarmah	Quantitative Analysis of Tones	Centre for Naga Tribal Language Studies (CNTLS), Nagaland University	Kohima	8 Sep 2017
Mrinal Kanti Dutta	Poverty and Rural Development in India	D. R. College	Golaghat	16 Sep 2017
Sambit Mallick	Indias Role in Africa	Lund University	Sweden	18 Sep 2017
Sambit Mallick	Science, Culture and Power	Lund University	Sweden	25 Sep 2017
Sambit Mallick	Critical Geographies of Power	Lund University	Sweden	26 Sep 2017
Sambit Mallick	Development in the Age of Modernity	Lund University	Sweden	2 Oct 2017
Sambit Mallick	IPR, Standards and Regulation in Science, Technology and Innovation	India Habitat Centre	New Delhi	4 Nov 2017

Name of Faculty	Name of Lecture/Talk	Name of Inst./Org.	Place	Date
Sambit Mallick	Communicating Science, Technology and Innovation for Sustainable Development	India Habitat Centre	New Delhi	4 Nov 2017
Sambit Mallick	Intellectual Property Rights: Situating the Debate in the Context of Innovation, Sustainability and	Jawaharlal Nehru University	New Delhi	5 Nov 2017
Debapriya Basu	Women Poets of the Sixteenth and Seventeenth Century	Jadavpur University	Kolkata	13 Nov 2017
Debapriya Basu	Early Modern Women in Science	Jadavpur University	Kolkata	16 Nov 2017
Priyankoo Sarmah	Speech beyond features	IIT Dharwad	Dharwad	17 Nov 2017
Priyankoo Sarmah	Vowel variation in a few languages of North East India	International Christian University	Tokyo	11 Dec 2017
Sambit Mallick	Civil Society in Changing India	Digboi Mahila Mahavidyalaya	Digboi	9 Jan 2018
Saundarjya Borbora	Poverty, Economic Growth and Human Development: Chain Relationship	Gauhati University	Guwahati	3 Feb 2018
Mrinal Kanti Dutta	Economic Performance of the North-Eastern Region in the Post-Liberalization Period	Gauhati University	Guwahati	3 Feb 2018
Mrinal Kanti Dutta	Social Dynamics of Poverty: Issues of Land Reforms and Livelihood	Gauhati University	Guwahati	3 Feb 2018
Saundarjya Borbora	Governance and Institutional Reforms in Higher Education in India	Directorate of Higher and Technical Education	Itanagar	6 Feb 2018
Bodhisattva Sengupta	Probability Theory and Its Constituents	IIT Guwahati	Guwahati	12 Mar 2018
Mrinal Kanti Dutta	Regional Disparity and Regional Economic Development	Dibrugarh University	Dibrugarh University	19 Mar 2018
Sambit Mallick	Science, Technology and Society	University of Science and Technology	Meghalaya	21 Mar 2018

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANIZATIONS/INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. Kausik Chaudhuri	Associate Professor, Economic Division, Leeds University Business School	Does the Banking Sector or the Stock Market Development matter for Economic Growth?	6 Apr 2017
Dr. Soumya Datta	Assistant Professor, Faculty of Economics, South Asian University, New Delhi	Can Limits of Arbitrage explain Bounded Rationality among Speculative Traders in Foreign Exchange Markets?	7 Apr 2017
Prof. Shobhana Chelliah	Professor, Department of Linguistics, University of North Texas, Denton	Frames of reference in syntax in Lamkang verb	4 Jul 2017
Prof. Prakash Sinha	Professor, Department of Ancient History, Culture & Archaeology, University of Allahabad, India	Decoding symbolism of prehistoric tools: a cognitive approach to Archaeology	21 Aug 2017
Prof. Ratul Lahkar	Professor, IIM Udaipur	An Evolutionary Analysis of Growth and Fluctuations with Negative Externalities	20 Oct 2017

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Prof. Anabel Ford	Director, ISBER/Meso American Research Center University of California, Santa Barbara, USA	Learning from the Ancient Maya and El Pilar: Conservation of Culture and Nature in the Maya Forest	23 Oct 2017
Prof. R. Radhakrishnan	Chancellor's Professor of English & Comparative Literature, University of California, Irvine	Jacques Derrida: The Philosopher that Therefore he has to be	30 Oct 2017
Dr. S. B. Ota	Director, Archaeological Survey of India, Ministry of Culture, Govt. of India	Investigations of Prehistoric Sites: Examples from Central India	21 Nov 2017
Ms. Anwesha Chakrabarti	Doctoral Candidate, Department of Agricultural and Resource Economics, University of Connecticut	Investigating Consumer Preference and Willingness to Pay for Specialty Mushrooms: A Latent Class Approach	9 Jan 2018
Prof. Samir Kumar Das	Department of Political Science, Calcutta University.	Democracy at the Margins: India's North-east	22 Jan 2018
Prof. Sreemati Chakrabarti	Head of the Department and Professor in Chinese Studies at the Department of East Asian Studies at University of Delhi	Paradox of China's Transformation	5 Feb 2018
Mr. Joe Athialy	co-founder and Executive Director of Centre for Financial Accountability (CFA), New Delhi	Demystifying Development Finance	12 Feb 2018
Prof. Pranab Mukhopadhyay	Director of the Internal Quality Assurance Cell of Goa University, fellow of SANDEE, and current president of INSEE	Assessing Quality in Higher Education Institutions in India: An alternate framework	16 Feb 2018
Prof. Anupama Roy	Professor, Centre for Political Studies, School of Social Sciences, JNU	Law's Lives, Estrangement, and Archival Spaces	22 Mar 2018

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of Participants
Bidisha Som	Lecture series in Cognitive Science	IITG	12 Aug 2017-31 Mar 2018	National	40
Sambit Mallick	Agriculture and Human Development in India: Indigenous Practices, Scientific Views and Sustainability	IGNOU, New Delhi and ICSSR, NERC, Shillong	8-9 Sep 2017	International	120
Anamika Barua	The Brahmaputra River Symposium	The World Bank	25-26 Sep 2017	International	-
Debapriya Basu	Graduate Research Meet 2017	Oil India and Indian Society of Labour Economics	2-4 Nov 2017	National	44
Pahi Saikia	India's Act East Policy: Locating Northeast	Assam Govt.	6 Dec 2017	National	40
Shakuntala Mahanta	GIAN course on Harmonic Grammar: Models and Methods	MHRD	14-21 Dec 2017	National	26
Vasundhara Jairath	Development Financing in India: Understanding Trends, Institutions and Politics	CFA & HSS, IITG	10-11 Feb 2018	National	20

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of Participants
Ngamjahao Kipgen	Two-Week Capacity Building Programme for Faculty Members in Social Sciences	Indian Council of Social Science Research, New Delhi	7-18 Mar 2018	National	33
Sambit Mallick	Two-Week Capacity Building Programme for Faculty Members in Social Sciences	ICSSR, New Delhi	7-18 Mar 2018	National	33
Bidisha Som	Lecture series in Cognitive Science	IITG	12 Aug 2017-31 Mar 2018	National	40
Sambit Mallick	Agriculture and Human Development in India: Indigenous Practices, Scientific Views and Sustainability	IGNOU, New Delhi and ICSSR, NERC, Shillong	8-9 Sep 2017	International	120
Anamika Barua	The Brahmaputra River Symposium	The World Bank	25-26 Sep 2017	International	-
Debapriya Basu	Graduate Research Meet 2017	Oil India and Indian Society of Labour Economics	2-4 Nov 2017	National	44
Pahi Saikia	India's Act East Policy: Locating Northeast	Assam Govt.	6 Dec 2017	National	40
Shakuntala Mahanta	GIAN course on Harmonic Grammar: Models and Methods	MHRD	14-21 Dec 2017	National	26
Vasundhara Jairath	Development Financing in India: Understanding Trends, Institutions and Politics	CFA & HSS, IITG	10-11 Feb 2018	National	20
Ngamjahao Kipgen	Two-Week Capacity Building Programme for Faculty Members in Social Sciences	Indian Council of Social Science Research, New Delhi	7-18 Mar 2018	National	33
Sambit Mallick	Two-Week Capacity Building Programme for Faculty Members in Social Sciences	ICSSR, New Delhi	7-18 Mar 2018	National	33

PATENTS

Sl. No.	Name of Faculty and Co-Researcher	Name	Date Applied/ Granted	Application No.
1	Priyankoo Sarmah, S. R. M. Prasanna, Kishalay Chakraborty, Senjam Shantirani, Sanjeevan Devnath	Device for Recording, Analysis and Visualization of Glottal Vibration and the Method Thereof	Applied on 23-03-2018	E-2/144/2018-KOL

AWARDS AND HONOURS

- i. Sambit Mallick awarded the Fellow of Sociology of Science and Technology in India by Royal Asiatic Society of Great Britain and Ireland on 31 May 2017
- ii. Dilwar Hussain (with Sarika Kaushal) received the overall best paper award for “Inhibitors of the Information Technology Success: Insights from Qualitative Investigation” at International Conference on Management Practices for the New Digital economy ICMAPRANE 2018
- iii. Pahi Saikia was awarded the Indo-Shastri Mobility Grant by MHRD, Government of India

STUDENTS’ ACHIEVEMENT

- i. M. Kumari (coauthored), International Travel Grant (full) from the Centre for the Study of the Sciences and the

Humanities, University of Bergen, Norway to attend 9th Annual Meeting of the Society for the Study of the New and Emerging Technologies, Phoenix, Arizona, USA, 9-11 October 2017.

- ii. R. Shukla, Travel Grant (full) from India LICs to attend the 4th India LICs Conference, Jawaharlal Nehru, University, New Delhi and India Habitat Centre, New Delhi, 1-5 November 2017.

SPECIAL MENTION

- i. S. Mallick, Represented RC-13 (Science, Technology and Society), Indian Sociological Society, ISS MC/RC Meeting, National Institute of Science Education and Research Bhubaneswar, 21 July 2017.
- ii. S. Mallick, External Member, Departmental Council, Department of Sociology, University of Science and Technology, Meghalaya, since 6 March 2018.

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1	Barua, Anamika	University of Leeds	Associate Professor	Socio-economic understanding of climate risk and resilience, urban living and sustainable cities
2.	Barua, Archana	North Eastern Hill University	Professor	Phenomenology, Existentialism, Feminist Epistemology, Applied Ethics, Philosophy of Religion, Indian Philosophy, Gandhian Philosophy
3.	Basu, Devapriya	Jadavpur University	Assistant Professor	Literature and culture of sixteenth century England, early modern women’s writing, feminist literary theory, early modern English manuscript studies, textual and bibliographical studies, book history, physical and digital archives, digital humanities, TEI-XML, web technologies
4.	Bedamatta, Rajshree	University of Calcutta	Associate Professor	Development Economics, Informal Sector, Issues in Food Security and Social Security, Economics of Education
5.	Borbora, Saundarjya	Gauhati University	Professor	Development Economics, Industrial Economics, Labour Economics
6.	Das, Debarshi	Jawaharlal Nehru University	Associate Professor	Development Economics, Macroeconomics, Applied Game Theory
7.	Das, Liza	Dibrugarh University	Professor	Literary and Cultural Theory
8.	Dutta, Mrinal Kanti (Head of the Department)	Gauhati University	Professor	Agricultural Economics, Environmental Economics, Development Economics
9.	Dutta, V. (From 26.07.2017)	Kings College London	Assistant Professor	Diplomatic and Military History, The World Wars and South Asia
10.	Hussain, Dilwar	IIT Kanpur	Associate Professor	Health and Clinical psychology
11.	Jairath, V. (From 30.06.2017)	University of Delhi	Assistant Professor	Social movements, Indigenous Politics, Cultural Politics, Development, Displacement, Latin America, Decolonisation of Knowledge

Sl. No.	Name	PhD	Designation	Areas of Interest
12.	Jha, Mithilesh Kumar	University of Delhi	Assistant Professor	Political Thought in Comparative Perspective particularly Indian and Western Political Thought, Political Theory, Indian Politics especially Language and related Issues of state formations in Modern India.
13.	Kashyap, Naveen	IIT Bombay	Associate Professor	Sleep and Information Processing
14.	Keshavamurthy, K. (From 18.07.2017)	University of California, Berkeley, CA South and Southeast Asian Studies	Assistant Professor	Modern Indian Literatures, Gender and Sexuality
15.	Khanolkar, P. (From 01.08.2017)	Univ. of Toronto	Assistant Professor	Politics of Urbanization in South Asia; Urban Housing and Slum Settlements; Social Lives of Infrastructure; Urban Land Markets; Spaces of Finance Capital; Urban Informal Economies; Urban Commons and Emerging Collectivities; Urban Theory and Methods; Cinema and City; Religion and Urban Space; South Asian Studies; Critical Theory; Urban Ethnography
16.	Kipgen, Ngamjahao	IIT Delhi	Assistant Professor	Environmental Sociology, Cultural Politics, Traditional Governance, Oral History
17.	Mahanta, Amarjyoti	Jawaharlal Nehru University	Assistant Professor	Industrial Organization, Auction Theory, Dynamics Economics (adjustment processes)
18.	Mahanta, Shakuntala	Utrecht University, The Netherlands	Associate Professor	Phonological theory with special interest in Optimality Theory, vowel harmony, Experimental approaches to Phonology and its acquisition
19.	Mallick, Sambit	University of Hyderabad	Associate Professor	Sociology of Science, Historical Sociology
20.	Nath, Hiranya Kumar (Upto 31.07.2017)	Southern Methodist University	Visiting Professor	Macro and Monetary Economics, Development Economics, Information Economics
21.	Parmar, D. C. (From 05.07.2017)	JNU, New Delhi	Assistant Professor	Public Health and Development, Health Systems in India, Global Public Health, Women's Health, Health Policy and Politics
22.	Parui, Avishek (Upto 06.11.2017)	Durham University, UK	Assistant Professor	Critical Theory, Masculinity Studies, Literature, Cognitive Psychology and Philosophy of Mind
23.	Punekar, Rohini Mokashi	Gujarat University	Professor	Research Interests: Culture and Translation Studies, Modern British Literature, Indian Writing in English
24.	Ranjan R. (From 29.12.2017)	Princeton University	Assistant Professor	History of Ideas, Historiography, Cultural Studies, Literature
25.	Ray, Sawmya	University of Hyderabad	Associate Professor	Sociology of Gender, Sociology of Law, Sociology of Communication
26.	Roychoudhuri, R. (From 03.10.2017)	South Asian Languages and Civilizations, The University of Chicago	Assistant Professor	History of Photography, Art History, Visual Culture, Print History, Postcolonial Studies, South Asia, Twentieth-Century India
27.	Saikia, Arupjyoti	University of Delhi	Professor	Social and Environmental History of 19 th and 20 th century Assam

Sl. No.	Name	PhD	Designation	Areas of Interest
28.	Saikia, Pahi	McGill University, Canada	Associate Professor	Identity issues of ethnic minorities, local governance, development policies, social movements, ethnic violence and conflict prevention
29.	Sarkar, A. (From 06.11.2017)	Durham University, UK	Assistant Professor	Macroeconomics, Monetary Economics, Finance
30.	Sarmah, Priyankoo	University of Florida, Gainesville	Associate Professor	Phonetics, Phonology, Acoustic Phonetics, Tibeto-Burman tones, psychoacoustics, perception
31.	Sengupta, Boddhisattva	McGill University	Associate University	Public Economics, Dynamic Economic Theory
32.	Sharma, N. K. (From 12.07.2017)	Delhi University	Visiting Professor	Psychology
33.	Sharma, Sukanya	Deccan College PG and Research Institute	Associate Professor	Archaeology of Northeast India, Colonial history of Assam, Cultural Policy
34.	Som, Bidisha	Jawaharlal Nehru University	Associate Professor	Cognitive linguistics, Endangered and lesser known languages, Language typology, sociolinguistics
35.	Thomas, John	Jawaharlal Nehru University	Assistant Professor	Religion and Formation of Cultural and Political Identities, Religion and Politics in North-East India, Social and Intellectual History of 19 th Century Travancore, History of Missionary Encounter in South Asia
36.	Tripathi, Nachiket	IIT Kanpur	Professor	Organizational Behaviour, Human Resource Management, Social/Environmental Psychology, I-O Psychology
37.	Venkataraman, Prabhu	Pondicherry University	Associate Professor	Philosophy of Technology, Applied Philosophy, Peace Studies, Critical Thinking, Applied Ethics, Philosophy of Education

DEPARTMENT OF MATHEMATICS

The Department at a Glance
Year of Establishment: 1995
Academic Programmes Offered: Bachelor of Technology (BTech) in o Mathematics and Computing Master of Science (MSc) in o Mathematics and Computing Doctor of Philosophy (PhD) in o Mathematics and Computing
Total Faculty Strength: 40 <ul style="list-style-type: none"> • Professor: 13 • Associate Professor: 8 • Assistant Professor: 19 New Faculty Members Joined: 3 <ul style="list-style-type: none"> • Associate Professor: 1 • Assistant Professor: 2
Total Student Strength: 361 BTech: 203 MSc: 94 PhD: 64
New Students Joined in 2017-2018: 109 BTech: 55 MSc: 45 PhD: 9

LABORATORIES

Maths E-block Laboratory: Seating capacity: $74+71 = 145$

Maths E1-block Laboratory: Seating capacity: 138

Two Research Scholars Laboratories: Total capacity: 100
(Located in E and E1 blocks)

All laboratories are equipped with LAN and wireless network connectivity. An LCD projector with motorized screen is available in each laboratory for tutorial and demonstration sessions. All students who are enrolled in B.Tech, M.Sc and regular Ph.D. programmes are allotted an individual computer in these laboratories.

In addition to the standard personal computers in the laboratories, the department has several workstations, high-end servers and a storage area network. All laboratories except research scholars laboratories are equipped with CCTV cameras.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

- (a) Motorized screen for projector (8×10 ft): 23,920.00
- (b) Upgradation of HCL desktops to Dell Optiplex 7040 desktop (20 Nos.): 10,97,652.00
- (c) HP Laserjet M403dn printer (04 Nos.): 174832.00
- (d) White Boards (03 Nos.) and key cabinet for 50 keys (02 Nos.): 29,650.00

- (e) 2 Ton Split AC (Make: Carrier): 54,430.00
- (f) Layer 2+ Managed Switch (Make: HP Aruba) (12 Nos.): 6,30,120.00
- (g) Lectrum Podium & Label Printer: 59,180.00
- (h) Motorized screen (04 Nos.): 48,825.00
- (i) Aquaguard Water Purifier: 12,800.00
- (j) Up gradation of HCL K6040 to Lenovo Think Centre M910-S (50 Nos.): 1,62,4750.00
- (k) LCD Project Epson EB 965H (06 Nos.): 3,96,352.00
- (m) 6U Glass wall mount (11 Nos.), 24 port Patch panel (22 nos), Patch Cord: 1,49,350.00

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Algebra, Linear Algebra, Number Theory, Combinatorics, Graph Theory, Functional Analysis, Harmonic Analysis, Complex Dynamics, Low Dimensional Topology, Differential Equations, Numerical Analysis, Fluid Dynamics, Mathematical Biology.

Probability, Stochastic Processes, Random Graphs, Stochastic Control Theory, Queuing Theory, Financial Mathematics, Distribution Models, Life Time Data Analysis.

Algorithms, Theoretical Computer Science, Computer Networks and Security, Distributed Computing, Quantum Computing, Computational Geometry.

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Rafikul Alam	International conference of Matrix and Functional Analysis	Jalandhar	29 Nov-2 Dec 2017	International
Rafikul Alam	International Conference on Linear Algebra and Its Applications (ICLAA 2017)	Manipal	11-12 Dec 2017	International
Bhaba K. Sarma	Mathematical Training and Talent Search Programme Silver Jubilee	Regional Institute of Education, Mysore	19-20 May 2017	National
Bhaba K. Sarma	Latest Trends in Mathematics with their Application (LTMTA – 2017)	NIT Nagaland	11-15 Dec 2017	National
Bhaba K. Sarma	Mathematical Training and Talent Search Programme-2018	Tezpur University	3-8 Jan 2018	National
N. Selvaraju	Latest Trends in Mathematics with their Application (LTMTA – 2017)	NIT Nagaland	11-15 Dec 2017	National
S. Natesan	Mathematical Training and Talent Search Programme Silver Jubilee	Regional Institute of Education, Mysore	19-20 May 2017	National
Ashok Singh Sairam	The 19th International Conference on Distributed Computing and Networking	IIT BHU Varanasi	4-7 Jan 2018	International
R. Barman	Journees Arithmetic 2017	Caen, France	3-7 Jul 2017	International
Vinay Wagh	CAAG-2017	IISER, Pune	5-8 Dec 2017	National

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Vinay Wagh	International Conference on Algebra and Analysis	Savitri Phule University of Pune	19-22 Dec 2017	International
Sukanta Pati	Matrix and Functional Analysis	Dr. B. R. Ambedkar NIT Jalandhar	30 Nov-2 Dec 2017	International
Sukanta Pati	International Conference on Linear Algebra and its Applications (IC-LAA-2017)	Manipal University	11-15 Dec 2017	International
M. Guru Prem Prasad	83 rd Annual Conference of Indian Mathematical Society Symposium on Dynamics, Chaos and Fractals	Sri Venkateswara University Tirupati	12-15 Dec 2017	National
Anupam Saikia	International Conference on Class Groups of number fields and related topics	HRI, Allahabad	4-7 Sep2017	International
Rajen Kumar Sinha	Recent Advances in PDEs:Theory, Applications and Computations	IIT Bombay	8-10 Jun 2017	International
Rajen Kumar Sinha	CIMPA -2017	IIT Kanpur	26 Jun-21 July 2017	International
Rajen Kumar Sinha	Fundamental Mathematics	Assam Kaziranga University	12 Feb 2018	National
Rajen K. Sinha	Teaching of Differential Equation in India	Orange County Resort, Bangalore	22-25 Feb 2018	International
Durga C. Dalal	19 th International Conference of Distributed Computing and Networking (ICDCN-2018)	IIT BHU	4-7 Jan2018	International
Gautam K. Das	12 th International Frontiers of Algorithmics Workshop (FAW 2018)	Guangzhov University, China	8-10 May 2018	International
Subhamay Saha	International Conference on Statistics (IISA)	Hyderabad International Conventional Centre	28-30 Dec 2017	International
Ayon Ganguly	National Conference on Recent Advancement in Statistics for Society and their Applications	University of Pune	23-25 May 2017	National
Sudarshan Kumar K	TIFR Centre for applicable Mathematics	Bangalore	7-17 Dec 2017	National
Sweta Tiwari	Mathematical Training and Talent Search Programme-2017	Regional Institute of Education, Mysore	22 May-3 June 2017	National
Arup Chattopadhyay	National Centre for Mathematics	Indian Statistical Institute Bangalore Centre	5-10 Mar 2018	National
Ayon Ganguly	The 10th International Conference on Mathematical Methods in Reliability (MMR 2017)	Grenoble, France	3-6 Jul 2017	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Shreemayee Bora	QR Algorithm	IIT Madras	Chennai, Tamil Nadu	24-25 Mar 2017
Siddhartha P. Chakrabarty	# Portfolio Optimization in Markowitz Framework # Exotic Option Pricing Using Monte Carlo Simulation	KIIT University	Bhubaneswar	16-21 May 2017

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Rafikul Alam	Mathematics Colloquium	University of Zagreb	Croatia	15 May 2017
Rafikul Alam	Mathematics Colloquium	J. J. Strossmayer University of Osijek	Croatia	1 Jun 2017
R. Barman	Elementary Number Theory	IIT Guwahati	Guwahati	29 May-10 Jun 2017
Rajen Kumar Sinha	A Posteriori Error Analysis of Linear Parabolic Interface Problems: A Reconstruction Approach	IIT Bombay	Mumbai	9 Jun 2017
Rajen Kumar Sinha	Finite Element Methods for Elliptic and Parabolic PDEs	KIIT University	Bhubaneswar	26-27 Jun 2017
Rajen Kumar Sinha	Adaptive Finite Element Methods	IIT Kanpur	Kanpur	30 Jun-1 Jul 2017
Shreemayee Bora	Vector Spaces of Linearizations for Rectangular Matrix Polynomials	University of Barcelona	Barcelona, Spain	15 Jul 2017
R. Barman	Counting points on Dwork hypersurfaces and hypergeometric functions	University of Caen	Caen, France	3 Jul 2017
Rafikul Alam	Mathematics Seminar Series	Institute of Advanced Study in Science and Technology	Guwahati	21 Aug 2017
Jiten Ch. Kalita	Lecture Series on Eigen Value and Linear Transformation	IIIT Bhagalpur	Bhagalpur	8-9 Sep 2017
Anupam Saikia	Congruence relations for the fundamental unit of a pure cubic field and its class number	Harish-Chandra Research Institute	Allahabad	Sep 2017
Jiten Ch. Kalita	Symmetry and spiral growth in nature	Jawahar Novodaya Vidyalaya	Rangia	17 Nov 2017
Jiten Ch. Kalita	The sub- α - and sub- β -phenomena at the pre- and post vortex shedding regime: a close look through structural bifurcation	IIT Guwahati	Guwahati	December 5, 2017
Shreemayee Bora	Vector Spaces of Linearizations for Rectangular Matrix Polynomials	NIT Jalandhar	Jalandhar	1 Dec 2017
R. Barman	Introduction to Linear Algebra	Gauhati University	Guwahati	29-30 Dec 2017
R. Barman	Some open problems on prime numbers	IIT Guwahati	Guwahati	7 Dec 2017
Jiten Ch. Kalita	Lecture series on multiple integrals	IIIT Bhagalpur	Bhagalpur	1-2 Feb 2018
R. Barman	Some open problems concerning numbers	Gurucharan College	Silchar	3 Feb 2018
Rajen Kumar Sinha	Continuous Functions and Their Properties	Assam Kaziranga University	Guwahati	12 Feb 2018
Jiten Ch. Kalita	Bi-harmonic computation of sub- α and sub- β phenomena at the pre- and post-vortex shedding regime	Dhaka University	Bangladesh	27 Mar 2018

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/Name of Lecture	Date
Prof. S. Ponnusamy	Indian Statistical Institute, Chennai Campus MGR Knowledge City, CIT Campus, Taramani Chennai	On the Classical Bohr Theorem for analytic and harmonic mappings in the unit disk	3 Apr 2017
Prof. H. P. Sankappanavar	State University of New York, New Paltz, USA	Interconnections between logic and algebra: Some glimpses into history	28 Apr 2017
Prof. Sanjay Kumar Singh	IISER, Bhopal	The diagonal and the point property	12 Jun 2017
Prof. Chandan Singh Dalawat	Harish-Chandra research Institute, Allahabad	Primitive extensions of local fields	27 Jun 2017
Prof. Rahul Roy	Indian Statistical Institute, New Delhi	Coverage of space by random sets	16 Aug 2017
Prof. Kaushal Verma	Indian Institute of Science, Bangalore	Quadrature Domains in the Plane	21 Aug 2017
Prof. Swadhin Pattnayak	Institute of Mathematics and Application, Bhubaneswar	Toeplitz Operators	25 Oct 2017
Prof. A. B. Raha	ISI Kolkata	Cantor-Dedekind-Bernstein Theorem	6 Nov 2017
Dr. Dhanya Rajendran	ISI Bangalore	On semi linear elliptic equation with singular nonlinearity	17 Nov 2017
Dr. Dhanya Rajendran	ISI Bangalore	Collaborative Research Work	6 Oct-6 Dec 2017
Prof. Takao Komatsu	Wuhan University, China	Hypergeometric Bernoulli and Cauchy numbers spaces	1 Dec 2017
Prof. Suresh P. Sethi	The University of Texas at Dallas	Feedback Stackelberg Games for Dynamic Supply Chains with Cost Learning	11 Dec 2017
Dr. Sudhir Pujahari	Harish-Chandra Research Institute, Allahabad	In the neighbourhood of Sato-Tate conjecture	4 Jan 2018
Prof. Mrinal Kanti Ghosh	Indian Institute of Science, Bangalore	Maximum Principle and Harnack's Inequality	17 Jan 2018
Prof. G. P. Raja Sekhar	Indian Institute of Technology, Kharagpur	The Journey of Lagrange and Applications of Euler-Lagrange Equations in Fluid Mechanics	25 Jan 2018
Prof. Biswa Nath Datta	Northern Illinois University, USA	Finite Element Model Updating: A Wonderful Inverse Eigenvalue Problem	20 Feb 2018
Dr. Satyajit Pramanik	Nordic Institute for Theoretical Physics, Sweden	Confinement and nonlocal elasticity effects in premelting dynamics	22 Feb 2018
Prof. Michael Karow	Institute for Mathematics, TU Berlin, Germany	Two Open Problems in Linear Algebra	6 Mar 2018
Prof. Kalyan B. Sinha	JNCASR and NMI Distinguished Associate, IISc	Spectral Approximation for Self-adjoint Operators, by Truncation	22 Mar 2018
Prof. John Augustine	Indian Institute of Technology, Madras	Robust and Efficient Computation in Dynamic Networks with Heavy Churn	6 Apr 2018

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Sl. No.	Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
1	Bhaba Kumar Sarma	Mathematics Training and Talent Search (M.T.T.S.) Programme	NBHM	29 May-24 Jun 2017	National	43
2	Bhaba Kumar Sarma	Training Programme in Mathematics for College Teacher	IIT Guwahati	3-14 Jul 2017	National	35
3	Partha Sarathi Mandal	Global Initiative of Academic Networks Course on Autonomic Networks	MHRD	30 Oct-3 Nov 2017	National	27

STUDENTS' ACHIEVEMENTS

Mr. Ramesh Prasad Panda, Roll No. 136123001 (a PhD student under the supervision of Dr. K.V. Krishna), received best paper presentation award for presenting paper titled "The Laplacian Spectrum of Power Graphs of Generalized Quaternion Groups" in the National Conference on Discrete Mathematics (NCDD-2017) during 8-10 June 2017 held at SSN College of Engineering, Chennai.

SPECIAL MENTION

Rafikul Alam: Visited Department of Mathematics, J. J. Strossmayer University of Osijek, Croatia, from 15 May-15 Jun 2017, for research collaboration.

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1.	Alam, R.	IIT Bombay	Professor	Numerical Functional Analysis, Numerical Linear Algebra
2.	Bandopadhyay, S.	ISI Delhi	Assistant Professor	Linear Algebra, Matrices
3.	Barman, Rupam	IIT Guwahati	Associate Professor	Number Theory
4.	Bhattacharjya, B.	IIT Kanpur	Associate Professor	Graph Theory
5.	Bora, S.	IIT Guwahati	Professor	Numerical Linear Algebra
6.	Bora, S. N.	Dalhousie University, Canada	Professor	Water Wave Mechanics, River Mechanics, Sloshing Dynamics, Flow through Porous Media, Differential Equation, Fractional Differential Equation
7.	Chakrabarty, S. P.	University of Illinois, Chicago, USA	Associate Professor	Mathematical Biology, Mathematical Finance, Optimal Control Theory
8.	Chakrabarty, A. K.	IIT Kanpur	Assistant Professor	Functional Analysis
9.	Chattopadhyay, Arup	JNCASR Bangalore	Assistant Professor	Functional Analysis and Operator Theory
10.	Dalal, D. C.	IIT Kharagpur	Professor	Computational Fluid Dynamics, Two-phase Flows
11.	Das, G. K.	ISI Kolkata	Associate Professor	Computational Geometry, Approximation Algorithms, Wireless Networks
12.	Deka, B.	IIT Guwahati	Associate Professor	Numerical Analysis, Finite Element Method, Interface Problems
13.	Dey, A. K.	IIT Kanpur	Assistant Professor	Distributions models and its applications, Survival Analysis

Sl. No.	Name	PhD	Designation	Areas of Interest
14.	Dutta, S.	IIT Kanpur	Assistant Professor	Quantam Computing, Complexity Theory
15.	Ganguly, Ayon	IIT Kanpur	Assistant Professor	Life Time Data Analysis
16.	Kalita, J. C.	IIT Guwahati	Professor	Computational and Topological Fluid Dynamics, Numerical methods for Partial Differential Equations, Mathematical Biology
17.	Kamal, S.	TIFR, Mumbai	Assistant Professor	Probability, Random graphs
18.	Kapoor, K.	London South Bank University, UK	Professor	Combinatorics, Algorithms
19.	Krishna, K. V.	IIT Delhi	Associate Professor	General Algebra, Theoretical Computer Science
20.	Krishna, P. A. S. Sree	SUNY, Buffalo	Assistant Professor	Hyperbolic 3-manifolds, Low-dimensional topology
21.	Kumar, P.	IIT Kanpur	Assistant Professor	Harmonic Analysis
22.	K., <u>Sudarshan Kumar</u> (From 30.06.2017)	TIFR, Centre for Applicable Mathematics, Bengaluru	Assistant Professor	Numerical analysis, Hyperbolic conservation laws
23.	Mandal, P. S.	Jadavpur University	Associate Professor	Wireless Sensor Networks, Distributed Computing
24.	Pal, Chandan (From 31.05.2017)	IIT Bombay	Assistant Professor	Stochastic Control Theory and Mathematical Finance
25.	Pati, S.	ISI Delhi	Professor	Matrices & Graphs
26.	Prasad, M. G. P.	IIT Kanpur	Professor	Complex Dynamics and Fractals
27.	Ramesh, H.	IIT Madras	Assistant Professor	Formal Languages and Automata Theory, Membrane Computing
28.	Saikia, A.	University of Cambridge, U. K.	Professor	Number Theory
29.	Saha, Subhamay	IISc Bangalore	Assistant Professor	Probability and Stochastic Process
30.	Sarma, B. K.	Delhi University	Professor	Spectral Graph Theory, Combinatorial Matrix Theory
31.	Selvaraju, N. (Head of the Department)	IIT Madras	Professor & Head	Queueing Theory, Financial Mathematics, Stochastic Modelling, Operations Research
32.	Sinha, R. K.	IIT Bombay	Professor	Numerical Analysis
33.	Sairam, Ashok Singh (From 09.08.2017)	IIT Guwahati	Associate Professor	Computer Networks and Network Security
34.	Srikanth, K. V.	SUNY, Buffalo	Assistant Professor	Low Dimensional Topology
35.	Srinivasan, Natesan	Bharathidasan University, Thiruchirappalli	Professor	Numerical solution to Differential Equations, Numerical Homogenization
36.	Srivastava, R.	IIT Kanpur	Assistant Professor	Harmonic Analysis
37.	Swain, J.	IIT Madras	Assistant Professor	Harmonic Analysis
38.	Tiwari, <u>Sweta</u>	IIT Delhi	Assistant Professor	Differential Equation
39.	Upadhyay, S.	CMI, Chennai	Assistant Professor	Algebraic Combinatorics
40.	Wagh, V. V.	University of Pune	Assistant Professor	Algebraic Geometry

DEPARTMENT OF MECHANICAL ENGINEERING

The Department at a Glance

Year of Establishment: 1995

Academic Programmes Offered:

Bachelor of Technology (BTech) in

o Mechanical Engineering

Master of Technology (MTech) in

1. Machine Design
2. Fluid and Thermal Engineering
3. Computer Assisted Manufacturing
4. Computational Mechanics
5. Aerodynamics and Propulsion

Doctor of Philosophy(PhD)

Total Faculty Strength: 47

- Professor: 18
- Associate Professor: 14
- Assistant Professor: 15

New Faculty Members Joined: 3

- Professor: 1
- Assistant Professor: 2

Total Student Strength: 749

BTech: 315

MTech: 209

PhD: 225

New Students Joined in 2017-2018: 232

BTech: 81

MTech: 106

PhD: 45

LABORATORIES

- **Advanced Manufacturing Laboratory:** Equipped with advanced equipments for manufacturing including micro-fabrication facility using CO2 Laser cutting technology.
- **Strength of Materials Laboratory:** Basically dedicated for doing all kinds of testing including tensile testing, fatigue testing, compressive testing, torsion testing, hardness testing, impact testing etc.
- **Materials Science Laboratory:** Dedicated for carrying out metallographic studies using highly precise microscope, XRD etc.
- **Fluid Mechanics Laboratory:** This lab has basic fluid mechanics set-up. The lab is equipped with different flow measuring set-ups such as venturimeter, orifice-plate, pitot tube, rotometer etc., where students can visualize the basic theory of working of the flow meter.
- **Thermal Science Laboratory:** This lab consists of heat exchangers, equipments for conducting experiments on conduction, convection and radiation, refrigeration systems etc. All these equipments facilitate learning of basic Thermodynamics and Thermal Engineering at undergraduate level.
- **Turbo-machinery Laboratory:** This lab has different tabletop model of pumps and turbines where students can study the performance characteristics of those machines. Students can strengthen their basic understandings of working and applications of these machines.
- **IC Engine Laboratory:** This lab is for both undergraduates and graduate students. Some of the experiments which are performed by under-graduate students are performance studies of both C.I. and S.I. engines, etc. Moreover, studies on the calorific values, exhaust gas characteristics, extensive studies of bio-diesel with both engines are done by post-graduate students in their respective project works.
- **Vibrations and Acoustics Laboratory:** This lab demonstrates basic vibrational instruments to students at undergraduate level. Also provides facilities for measurement of frequency signals, rpm etc, and facilities for data-acquisition which are very much beneficial for research activities in the domain of vibrational analysis.
- **Mechatronics and Robotics Laboratory:** The Mechatronics and Robotics lab is equipped with various facilities to educate the students at the undergraduate and postgraduate levels. Most of the robotics activities are facilitated to students by this lab.
- **Instrumentation and Control Laboratory:** This lab performs calibration of pressure transducer/ gauge and other mechatronics apparatus, provides strain-gauge measurement facilities etc.
- **Theory of Machines Laboratory:** This lab consists of all basic equipments for understanding mechanisms, apparatus etc. at undergraduate level such as gyroscope, governor, jib-crane, screw jack, worm-wheel apparatus etc.
- **Tribology Laboratory:** Provides facilities for carrying out wear test of specimens of different materials under the condition of with lubrication/without lubrication.
- **CAD/CAM Laboratory:** Specialized in extending computer-assisted software tools needed for design and analysis such as ABAQUS, ANSYS, Master CAM, Pro/E, ADAMS etc.
- **Wind Tunnel Laboratory:** Provides facilities for carrying out wind tunnel related experiments.
- **3D Printer Laboratory:** Provides facilities for 3D printing.

In addition, 14 new laboratories have been built –

- Micro-machining lab
- Aerodynamics lab
- Electromechanics lab
- Composite and Fracture lab
- Welding lab
- Dynamics and Vibration lab
- Advance Mechatronics and Bio-materials lab
- Computation MD Lab
- Microfluidics Lab-1
- Microfluidics Lab-2
- Smart materials and structures lab
- CFD lab
- Gasification and Thermal Lab
- Hydraulic lab

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Groupwise Research Areas are

Fluids and Thermal Engineering

- Computational methods for Incompressible flows
- DNS and LES of Turbulence
- Energy management and conservation
- High speed aerodynamics
- Interfacial heat and mass transport
- Metal hydride based thermal machines
- Micro and nano-scale thermal/fluid transport
- Micro-fuel cells
- Thermal aspects of biological systems
- Thermal radiation

Machine Design Engineering

- Acoustics
- Active Materials
- Composites
- Dynamics and Vibrations
- Finite Element Method and Analysis

- Fracture Mechanics and Design
- Mechatronics
- Micromechanics
- Nanocomposites
- Rolling Element Bearings Design and Analysis
- Smart Structures
- Tribology

Manufacturing Engineering

- Bio-MEMS
- Casting
- CAD/CAM/CIM

- Coating
- Composites
- Computer Application in Metal Forming
- Design and Manufacturing
- Electromagnetic pulse processing
- FEM, Neural Network
- Fuzzy Set Application
- Genetic Algorithms and Fuzzy logic in manufacturing
- Mechatronics
- Metal Forming
- Unconventional machining processes
- Welding of light weight metals
- Welding Process Monitoring and Control

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./ Org.	Place	Date
Amaresh Dalal	Numerical Simulation of Droplet Hydrodynamics and Boiling	NIT Arunachal Pradesh	Arunachal Pradesh	9 Mar 2018
Amaresh Dalal	AnuPravaha: A General Purpose Indigenous CFD Solver for Multiphysics Applications	Amrita University	Kollam	14-16 Dec 2017
U. S. Dixit	A talk on laser forming and surface alloying	Royal Global University	Guwahati	30 Oct 2017
P. Muthukumar	Green Energy Technologies	Pondicherry University	Pondicherry	15 Dec 2017
P. Muthukumar	Recent trends in Refrigeration and Air-conditioning systems	Pondicherry Engineering College	Pondicherry	15 Dec 2017
P. Muthukumar	Porous Medium Combustion- An Energy Efficient Technologies	Sikkim Manipal University	Sikkim	9 Dec 2017
Ujjwal K. Saha	Wind Energy Conversion Systems	Assam Engineering College	Guwahati	18 Nov 2017
Ujjwal K. Saha	Gas Turbine Propulsion Technology	Assam Engineering College	Guwahati	18 Nov 2017
Ujjwal K. Saha	Wind Tunnel Aerodynamics	Tezpur University	Tezpur	13 Dec 2017
U. S. Dixit	Manufacturing, Friction	Dibrugarh University	Dibrugarh	27 Mar 2018
Sukhomay Pal	Sensor based weld defects detection system in friction stir welding	Asansol Engineering College	Asansol, West Bengal	24 Mar 2018
S. Kanagaraj	Synthesis and characterization of ceria based solid solution as a radical scavenger in cochlear implants	Madras University	Chennai	16 Mar 2018
Ujjwal K. Saha	Understanding Aerospace Engineering (6 Lectures)	Dibrugarh University	Dibrugarh	26 Mar 2018
Ujjwal K. Saha	Aeronautics for Beginners (One-day Workshop)	IIIT Bhagalpur	Bhagalpur	13 Apr 2018

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANIZATIONS/INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. Sumon K. Sinha	SinhaTech, USA	To Deliver Departmental Lecture (UTILIZ- ING FLOW UNSTEADINESS FOR MAXIMIZ- ING EFFICIENCY IN REAL LIFE)	21 Mar 2018

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Sl. No.	Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
1	Amaresh Dalal	GIAN course on " Multi-physics Coupling in Energy Storage "	MHRD	26-30 Jun 2017	National	43
2	U. S. Dixit	GIAN course on Crystal Plasticity Modelling of Micro-machining Processes	MHRD	11-15 Dec 2017	National	25
3	D. Sharma, S. Pal. S. D. Kore, P. C. Kalita	Training Program on Inventory and Supply Chain Management	Ministry of Heavy Industry and Public Enterprise	6-10 Nov 2017	National	40

AWARDS AND HONOURS

- Amaresh Dalal was awarded "Prof. K. N. Seetharamu Medal and Prize" by Indian Society of Heat and Mass Transfer for Best Young Researcher in Heat Transfer-2017
- G. Biswas: Keynote Lecture at the I2CNER Annual Symposium on Challenges in Thermal Science and Engineering, Towards a Sustainable Society, Kyushu University
- P. Muthukumar was awarded Mechanical Engineering Design Award 2017 by National Design & Research Forum (NDRF) of Institute of Engineers (India) for Outstanding Individual contribution in Engineering Design on 21 Dec 2017
- P. Muthukumar was awarded Fulbright-Nehru Academic & Professional Excellence Award (Teaching & Research) 2017 by Indo - U.S. Science and Technology Forum for Contribution in Teaching and Research
- P. Muthukumar received Fulbright-Nehru Academic & Professional Excellence Award (Teaching & Research) 2017 from Indo - U.S. Science and Technology Forum
- P. Mahanta has received JSPS Fellowship (by invitation), 2017 by GIFU University, Japan
- Poonam Kumari was awarded Young Engineer INAE-2017 by Indian National Academy of Engineering on 15 Dec 2017
- S. K. Dwivedy has received the Mechanism and Machine Theory 2017, Award for Excellence
- M. Ravi Sankar was awarded the Skill India Indo Global Research Excellence Award 2017 in Andhra Pradesh and Telangana Skill Development Chapter 2017 for Contri-

bution in Teaching and Research

- M. Ravi Sankar was awarded Venus International Faculty Award 2017 for Outstanding Faculty in Mechanical Engineering, 2017
- M. Ravi Sankar received 3rd Prize for Oral presentation award for the paper "PLA/Nano HAp Based Resorbable Composites: Devise to Fix Podietry fixations" at ASP-2018 Conference on 11 Jan 2018
- M. Ravi Sankar was awarded Best Presenter Award for the paper "Development and rheological study of the polymer blended viscoelastic medium for finishing of microholes" at 2nd International conference on Advanced Materials Research and Manufacturing Technologies (AMRMT-2017), Phuket, Thailand on 4 Aug 2017
- M. Ravi Sankar was awarded Best Paper (1st Position) for the paper "Development of Nozzle Feature on Copper Surface by Bio-Micromachining" at International Conference on Manufacturing Technology and Simulation (ICMTS) on 8 Jul 2017

STUDENTS' ACHIEVEMENTS

- PhD student Kishor Kumar Gajrani has received Best Poster Award for the paper "Comparative Tribological Performance of Graphite, CaF₂ and MoS₂ Coated Mechanical Micro-Textured Cutting Tool Material during Dry Sliding Test" at Research Conclave' 2018
- PhD student Sunil Kumar Singh has received 2nd Prize in Student's Mechanism Design Contest for the paper "A partially statically balanced scissor-linkage based robot was made primarily out of bamboos" at International-

National Conference on Mechanism and Machines (iNaCoMM), December 2017 (Conference) held in BARC Mumbai

- iii. PhD Student Md. Nur Alom was awarded ASME Young Engineer Turbo Expo Participation Award for the paper “Arriving at the optimum overlap ratio for an elliptical-

bladed Savonius rotor” by American Society of Mechanical Engineers, USA 30 Jun 2017

- iv. PhD student Rasmi Ranjan Behera has received Best Poster Award for the paper “Calcium Phosphate Coating on Ti-6Al-4V alloy using RF magnetron Sputtering Process” at Research Conclave’ 2018

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1	Bag, Swarup	IIT Bombay	Associate Professor	Fusion welding processes, Finite element method, Laser micro joining, Heat transfer and fluid flow in fusion welding, Residual stress and distortion, Recrystallization in hot metal forming process, Optimization in manufacturing process
2	Bandopadhyay, Dibakar	IIT Kanpur	Associate Professor	Active materials, Artificial muscle materials, Smart structures, Robotics and mechanism, Composites, MEMS, Bio inspired design
3	Banerjee, Atanu	IIT Kanpur	Associate Professor	Complaint Mechanism, Shape memory alloy, Bio-mimetic devices
4	Basu, Dipankar Narayan	IIT Kharagpur	Assistant Professor	Nuclear Thermalhydraulics, Supercritical Natural Circulation Loops, Domestic Air-conditioning, Computational Fluid Dynamics and Heat Transfer
5	Biswas, Pankaj	IIT Kharagpur	Associate Professor	Manufacturing and Design: Computational weld mechanics, Solid state welding, Soft computing modeling of welding processes, FEM, Line heating
6	Biswas, Gautam	IIT Kharagpur	J C Bose National Fellow and Director of the Institute; Professor	Computational Fluid Dynamics, Convective Heat Transfer, Turbulence, Boiling Heat Transfer, Heat Transfer Augmentation, Turbomachinery
7	Chakraborty, Debabrata	IIT Kharagpur	Professor	FRP, Composites, FEM, Fracture Mechanics and Design
8	Dalal, Amaresh	IIT Kanpur	Associate Professor	Computational Fluid Dynamics, Heat Transfer, Structured Grid Techniques in Curvilinear Coordinates, Finite Volume Methods and Unstructured Grid Techniques, Natural and Mixed Convection Flows, Electrochemical Energy Conversion and Storage
9	Das, Manas	IIT Kanpur	Assistant Professor	Advanced Finishing and Nano-finishing Processes, Non-traditional Machining Processes, Machining of Advanced Engineering Materials, Micromanufacturing, Micromachining, Tribology, Laser Welding
10	Dass, Anoop K.	IISc Bangalore	Professor	Computational Fluid Dynamics and Turbomachines
11	De, Arnab Kumar	IIT Kanpur	Associate Professor	Numerical Methods in Fluid Flow and Heat Transfer, Convection, Turbulence
12	Dixit, Uday S.	IIT Kanpur	Professor	Design and Manufacturing : FEM, Neural Network and Fuzzy Set Application; Mechatronics

Sl. No.	Name	PhD	Designation	Areas of Interest
13	Dwivedy, Santosha K. (Head of the Department)	IIT Kharag-pur	Professor	Non-linear Dynamics, Design and Robotics, vibrations
14	Gautam, Sachin S.	IIT Kanpur	Assistant Professor	Design and Manufacturing :Nonlinear Finite Element Analysis, Computational Contact Impact Analysis, Adhesion, Rough Surfaces, Time Integration Schemes, Mixed Time Integration Schemes, Plasticity, Ductile Fracture, Continuum Damage Mechanics
15	Gavara, Madhusud-hana	IISc Banga-lore	Assistant Professor	Computational Fluid Dynamics, Heat Transfer, Cooling of Electronics, Multi-phase flows, Cooling at Micro/ Mini scales, Turbulent Fluid Flow and Heat transfer
16	Hazarika, Shyamanta M. (From 16.05.2017)	School of Computing, University of Leeds, Eng-land	Professor	Robotics, Cognitive Systems, Knowledge Representa-tion and Reasoning
17	Joshi, Shrikrishna N.	IIT Bombay	Associate Professor	Micro fabrication: Laser micro forming, Micro machin-ing: Micro electric discharge machining (EDM), Web based manufacturing, Process modeling and optimi-zation of advanced manufacturing processes, Applica-tion of soft computing techniques in manufacturing
18	Kakoty, Sashindra K.	IIT Kharag-pur	Professor & Dean, Infra-structure, Planning and Management	Tribology, Duct Acoustics, Mechanical System Design, Rural Technology
19	Kalita, Karuna	University of Nottingham	Associate Professor	Rotordynamics, Coupled Dynamics of Electro-Me-chemical Systems, Vibration
20	Kanagaraj, S.	IIT Kharag-pur	Professor	Biomaterials, Carbon nanotubes based nanocompos-ites, Nanofluids, Materials characterization
21	Khanikar, Prasenjit	North Caro-lina State University	Assistant Professor	Microstructural Materials Modeling, Micro-mechanics, Dislocation Density Based Crystal Plasticity, Deforma-tion and Failure Mechanisms of Metallic Materials, Fi-nite Element Method, Dynamic Behavior of Materials, Fracture Mechanics, Aluminum Alloys, Microstructural Characterization
22	Kore, Sachin D.	IIT Bombay	Associate Professor	Experimental and numerical study of electromag-netic pulse processing, Solid state welding, Joining of similar, dissimilar and lightweight metals like Al, Steel, Al-Li, and Mg
23	Kulkarni, Vinayak N.	IISc Banga-lore	Associate Professor	High enthalpy flows, scramjet engine, experimental, aerodynamics, measurement science, CFD simulations
24	Kumar, Bhaskar	-	Assistant Professor	Hydrodynamic Stability, Bluff Body Flows, Computa-tional Fluid Dynamics
25	Kumari, Poonam	IIT Delhi	Assistant Professor	Theory of plates and shells, Computational mechanics, Smart structures
26	Mahanta, Pinakeswar	IIT Guwahati	Professor	Thermal Radiation with Participating Media, Fluidiza-tion, Energy Conservation and Renewable Energy

Sl. No.	Name	PhD	Designation	Areas of Interest
27	Mehta, Balkrishna	IIT Kanpur	Assistant Professor	Experimental investigation of heat transfer in two-phase flow in mini/micro systems, Heat pipes, Thermosyphons, Heat transfer investigation of ferrofluids in presence of magnetic field, InfraRed thermography for temperature measurements.
28	Mondal, Pranab Kumar	IIT Kharagpur	Assistant Professor	Microfluidics, Electrokinetics, Two Phase Transport, Microscale Transport of Heat, Flow Through Porous Media.
29	Murthy, K. S. R. Krishna	IIT Kharagpur	Professor	Finite Element Methods, Error Estimation and Fracture Mechanics
30	Muthu, Nelson (From 22.05.2017)	Monash University	Assistant Professor	Meshfree Methods, FEM, Fracture Mechanics, Composites, Structural Health Monitoring, Medical Device Innovation
31	Muthukumar, P.	IIT Madras	Professor	Coupled heat and mass transfer analysis; Metal hydride based thermal machines, Conventional and Non-conventional refrigeration systems
32	Nandy, Arup (From 28.06.2017)	IISc Bangalore	Assistant Professor	Finite Element Development and Analysis in Structure, Acoustics, Electromagnetics, Structural acoustic interaction, Magnetohydrodynamics, MEMS; Optimization
33	Narayanan, Ganesh R	IIT Bombay	Associate Professor	Material Forming and Joining
34	Natarajan, Ganesh	IISc Bangalore	Associate Professor	Computational Fluid dynamics, Grid Adaptation, Error Estimation, Immersed Boundary methods, Parallel computing, Biofluid dynamics
35	Pal, Sukhomay	IIT Kharagpur	Associate Professor	Welding Process Monitoring and Control, Tool Condition Monitoring, Non-Conventional Machining Process Application of Artificial Neural Network, Genetic Algorithms and Fuzzy logic in manufacturing
36	Panda, Satyajit	IIT Kharagpur	Associate Professor	Composite materials, Nonlinear vibrations, Smart materials and structures, FEM, Functionally Graded materials and structures, Micromechanics
37	Pandey, Manmohan	IIT Kanpur	Professor	Dynamics and Control of Fluid-Thermal Systems, Nuclear Reactor Thermal-Hydraulics
38	R., Sangamesh Deepak	IISc Bangalore	Assistant Professor	Kinematics and Dynamics of rigid multi-body systems, Compliant Mechanisms, Topology Optimization, Static Balancing
39	Reddy, Narayana	IISc Bangalore	Assistant Professor	Inverse Problems, Biomechanics, Compliant Mechanisms, Topology Optimization, Nonlinear FEM, MEMS and Design of Materials
40	Robi, P. S.	IIT Bombay	Professor	Coating, Fracture Mechanics, Materials Processing, Metal Matrix composite, Metal Casting, P/M Processing
41	Saha, Ujjwal K.	IIT Bombay	Professor	Propulsion, Turbomachinery, Wind Energy Conversion, Internal Combustion Engines

Sl. No.	Name	PhD	Designation	Areas of Interest
42	Sahasrabudhe, Anil D.	IISc Bangalore	Professor (On deputation as Chairman of the All India Council for Technical Education)	Vibration and Noise, Condition Monitoring, CAD/CAM
43	Sahoo, Niranjana	IISc Bangalore	Professor	Fluid and Thermal Engineering, Aerodynamics, Gas Dynamics, Instrumentation, Measurements and Experiments in Fluid
44	Sankar, Ravi M.	IIT Kanpur	Assistant Professor	Machining & Advanced Machining Processes, MEMS & NEMS, Sustainable Machining, Micromanufacturing, Composite Materials, Online monitoring of Manufacturing Processes, Tribology, Precision Engineering
45	Senthilvelan, S.	IIT Madras	Professor	Composites, Fatigue, Wear and Failure Analysis
46	Sharma, Deepak	IIT Kanpur	Assistant Professor	Optimal Design: Modeling and Computation, Engineering Design and Optimization, Genetic Algorithms, Multi-objective Optimization
47	Tiwari, Rajiv	IIT Kanpur	Professor	Rotor Dynamics, Vibrations, Identification in Mechanical Systems, Rolling Element Bearing Design and Analysis, Application of Active Magnetic Bearings in Rotors, Vibrations based Condition Monitoring of Industrial Rotating Machines

DEPARTMENT OF PHYSICS

The Department at a Glance

Year of Establishment: 1995

Academic Programmes Offered: 1995

Bachelor of Technology (BTech) in

- o Engineering Physics

Master of Science (MSc) in

- o Physics

Doctor of Philosophy (PhD)

Total Faculty Strength: 40

- Professor: 17
- Associate Professor: 9
- Assistant Professor: 13
- Visiting Professor: 1

Total Student Strength: 388

- BTech: 159
- MSc: 90
- PhD: 139

New Students Joined in 2017-2018: 121

- BTech: 48
- MSc: 46
- PhD: 27

LABORATORY FACILITIES (Total No: 23)

a) Teaching Labs: (5 teaching laboratories)

- i. Advanced Physics lab-01
- ii. B. Tech 1st year lab-01
- iii. Electronics lab-01
- iv. M. Sc lab-01
- v. Numerical lab-01

b) Research labs: (18 research laboratories)

- i. Computational lab
- ii. Electro-ceramics lab
- iii. Fiber optics lab
- iv. Furnace lab
- v. High Energy Physics lab
- vi. Holography and Optical imaging lab
- vii. Laser and Photonics lab
- viii. Low temperature lab
- ix. Magnetism lab
- x. Materials Science lab
- xi. Nonlinear optics lab
- xii. Semiconductor labs (02)
- xiii. Solid State Physics lab
- xiv. Spectroscopy lab
- xv. Terahertz Photonics and Plasmonics lab
- xvi. Laser Cooling lab
- xvii. Thin film lab
- xviii. XRD labs (02)

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

Cryogen free physical property measurement system (PPMS) based Vibrating Sample Magnetometer supported by DST under FIST phase 2.

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

The major research focus of the department is evenly poised between different branches of theoretical and experimental Physics. The thrust areas are:

i. Condensed Matter Physics (Theory and Experiments)

- ✓ Amorphous and nanocrystalline magnetic materials.
- ✓ Amorphous and nanocrystalline semiconductor thin films for solar cells and other devices. Thin film and Hetero-junction solar cells.

- ✓ Atomistic Modeling of Materials for Energy and Environmental Applications.
- ✓ Biophysics and Biomaterials.
- ✓ Polymer nanocomposites.
- ✓ Hybrid nanomaterials for energy and environmental applications.
- ✓ Magnetic alloys and thin films for spintronics.
- ✓ Microwave and piezoelectric bulk and thin films.
- ✓ Multilayer structured thin films.
- ✓ Nanostructured and Nanogranular magnetic materials.
- ✓ Transition Metal oxide system.

ii. Laser and Photonics (Theory and Experiments)

- ✓ Fiber & Integrated Optics, Photonic Crystal Fiber and applications, Surface Plasmon Resonance based Sensors, Fiber Bragg Gratings and based Devices, Fiber Optic Sensor, Bio/Nano-Photonics.
- ✓ Laser cooling and trapping of atoms.
- ✓ Laser Physics and Spectroscopy, Laser produced plasmas.
- ✓ Nonlinear optics.
- ✓ Programmable Diffractive Optics, Confocal Microscopy.
- ✓ Quantum Optics.
- ✓ Ultrafast optics, Terahertz Plasmonics and metamaterials.

iii. High Energy Physics (Theory and Experiment)

- ✓ Collider Phenomenology: Darkmatter studies, Supersymmetric models, Higgs Physics and Top quark physics, Higher order QCD corrections, Flavour Physics and CP violation.
- ✓ Cosmology and Astroparticle Physics: Inflationary models, Leptogenesis and Baryogenesis, Darkmatter studies, Supernovae neutrinos.
- ✓ Experimental High Energy Physics: B-Physics, Neutrino Physics, ILC R&D.
- ✓ Low energy QCD, Effective Field Theory.

iv. Cosmology and Gravitation

- ✓ Astrophysical flows around compact objects, Ultra high energy cosmic rays, Black hole perturbations, Gravitational waves Cosmology, Ads/CMT.
- ✓ General theory of relativity, Field theory on curved space times, Black holes.

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/National
Subhradip Ghosh	IIT system and Tokyo Tech.	Tokyo, Japan	4 Dec 2017	International
Subhradip Ghosh	Research visit to Tokyo Institute of Technology	Tokyo, Japan	28 Nov-4Dec 2017	International
Gagan Kumar	20 th International Conference on Optics, Lasers and Spectroscopy	Zurich, Switzerland	15-16 Jan 2018	International
Gagan Kumar	International Conference on Optics and Photonics	Singapore	9-10 Nov 2017	International
Tapan Mishra	IIT system and Tokyo Tech.	Tokyo Institute of Technology, Japan	4 Dec 2017	International
Tapan Mishra	ICTS @ Ten	ICTS-TIFR, Bangalore	4-6 Jan 2017	International
Padma Kumar Padmanabhan	1 st World Conference on Solid Electrolytes for Advanced Applications: Garnet and Competitors	Pondicherry University	6-9 Sep 2017	International
Padma Kumar Padmanabhan	Science Academies' Lecture-Workshop on Atomistic Computer Simulation Techniques	Assam University, Silchar	30 Oct-1 Nov 2017	National
Padma Kumar Padmanabhan	Recent Advances in Computational Chemistry, 4th Dec, 2017, SSCU	IISc, Bangalore	4 Dec 2017	National
Padma Kumar Padmanabhan	Recent Advances in Molecular Simulations	IISc, Bangalore	8-11 Feb 2018	National
Perumal Alagarsamy	The 28 th Magnetic Recording Conference (TMRC2017)	Tsukuba, Japan	2-4 Aug 2017	International
Perumal Alagarsamy	11 th India-Singapore Joint Physics Symposium	Nanyang Technological University, Singapore	6-7 Mar 2018	International
Arunansu Sil	Nu-Horizon VII	HRI, Allahabad	21-23 Feb 2018	International
Arunansu Sil	Dark Side of the Universe	KAIST, Daejeon, South Korea	10-14 Jul 2017	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Pratima Agarwal	Optoelectronic properties of nanocrystalline silicon based superlattice structures	NPL	New Delhi	15 Nov 2017
Pratima Agarwal	Advances in Solar cells: Materials and Technology	NIT Silchar	Silchar	15 Mar 2018
Bipul Bhuyan	Neutrino: An Elusive Subatomic Particle	Assam University, Diphu Campus	Diphu, Assam	28 Feb 2018
Bipul Bhuyan	Unlocking the Mysteries of the Neutrinos	Cotton University	Guwahati	14 Sep 2017
Bipul Bhuyan	Belle II: Physics Prospects and Current Status	3 rd International Conference on Particle Physics and Astrophysics	Moscow, Russia	2-5 Oct 2017

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Bipul Bhuyan	Searches for Dark Sector at e+e- Colliders	MNIT	Jaipur	29 Nov-3 Dec 2017
Subhaditya Bhattacharya	Freeze-out and freeze-in mechanism for Dark Matter relic density	Jawaharlal Nehru University	New Delhi	20 Dec 2017
Subhaditya Bhattacharya	Simple dark matter models and phenomenology	Jawaharlal Nehru University	New Delhi	21 Dec 2017
Subhaditya Bhattacharya	Dark matter effective field theories and collider signatures at LHC	Jawaharlal Nehru University	New Delhi	22 Dec 2017
Subhaditya Bhattacharya	Dark Matter: A story unfolding	Goalpara College	Goalpara, Assam	24 Feb 2018
Subhaditya Bhattacharya	Phenomenology of Dark Matter in single and multipartite framework	Harish Chandra Research Institute	Allahabad	5 Mar 2018
Bosanta R. Boruah	Wavefront sensing of light beams using a programmable array of gratings	Indian Institute of Space Science & Technology	Thiruvananthapuram	11-13 Aug 2017
Bosanta R. Boruah	Basics of Lasers	D. R. College	Golaghat, Assam	Jan 2018
Sayan Chakrabarti	Gravitational waves finally captured	IIT Guwahati	Guwahati, Assam	5 Nov 2017
Tarak N. Dey	Phase Dependent Electromagnetically Induced Transparency	Tezpur University	Tezpur, Assam	29-31 Aug 2017
Tarak N. Dey	Computational Quantum Optics (Lecture Series)	IIT Guwahati	Guwahati	1-19 Dec 2017
P. K. Giri	Plasmonic Ag/Au/Pt Nanoparticle Decorated Mesoporous Si Nanowires and MoS ₂ @TiO ₂ (B) Nanobelts Heterostructures for Photovoltaic and Photocatalytic Applications	9 th International Conference on Materials for Advanced Technologies (ICMAT 2017)	Singapore	18-23 Jun 2017
P. K. Giri	Mesoporous Si Nanowire Templated Growth of Organo-Metal Halide Perovskite Nanoparticles and Its Photoluminescence Enhancement	The International Conference on Electron Microscopy and Allied Techniques (EMSI-2017)	Mahabalipuram	17-19 Jul 2017
Sunil Khijwania	Sensitivity Tunability and Multi-Dimensionality of Optical Fiber Sensor for Structural Health Monitoring	Guru Jambheshwar University of Science and Technology	Hisar, Haryana	23-16 Nov 2017
Sunil Khijwania	All optical Structural Health Monitoring: Development of Smart Optical Fiber Sensors	IIT Guwahati	Guwahati	29 Nov-2 Dec 2017
Gagan Kumar	Terahertz Plasmonic and Metamaterials Devices	IIT Kharagpur	Kharagpur	27 Mar-2 Apr 2017
Tapan Mishra	Anomalous Pairing of Bosons in optical lattice	Yukawa Institute of Theoretical Physics, Kyoto University	Kyoto Japan	30 Nov 2017
Tapan Mishra	Anomalous pairing of Bosons in optical lattice	S. N. Bose National Centre for Basic Sciences	Kolkata	26-27 Oct 2017
Alika Khare	Surface Enhanced Raman Scattering and Antibacterial capability of Pulsed Laser Ablated Metal Nano Particles	Assam Science and Technology University	Guwahati	15-17 Mar 2018

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Alika Khare	Implication of Laser Induced Plasma Parameters on Properties of Pulsed Laser Deposited Thin Films	University of Allahabad	Allahabad	19-21 Feb 2018
Alika Khare	Relevance of Vacuum Technology in Optical Sciences	IIT Guwahati	Guwahati	19 Aug 2017
Uday Narayan Maiti	Controlled surface modification of graphene and CNT for application specific supercapacitive energy storage	Bhaba Atomic Research Centre	Mumbai	26 Dec 2017
Pankaj Kumar Mishra	Dynamics of the density of the quantized vortex lines in superfluid turbulence	International Center for Theoretical studies (ICTS)	Bengaluru	16 Jun 2017
Padma Kumar Padmanabhan	Nano-science and Nano-technology	Gauhati University	Guwahati	7 Apr 2017
D. Pamu	Deposition and characterization of nanocrystalline thin films	North-Eastern Hill University	Meghalaya	29-30 Oct 2017
D. Pamu	Development of HAP thin films for biomedical applications	Andhra University	Andhra Pradesh	15-16 Mar 2018
Perumal Alagarsamy	Role of nanostructure on the magnetic properties of novel materials and their applications	Madurai Kamaraj University	Tamil Nadu	6 Jul 2017
Perumal Alagarsamy	Role of nanomagnetism in future Hard Disk Drive with areal density of beyond 4 Terabits/in ²	Dibrugarh University	Dibrugarh	11 Nov 2017
Perumal Alagarsamy	Love and Magnetism: Changes and Challenges in Daily-Life	Srimad Andavan Arts & Science College	Tamil Nadu	31 Jan 0000 2018
Perumal Alagarsamy	Magnetic Storage: Current and Future Perspectives	Nanyang Technological University	Singapore	6 Mar 2018
S. Ravi	Deposition of Single and Bilayer Films of Nd _{0.7} Sr _{0.3} MnO ₃ and Nd _{0.8} Na _{0.2} MnO ₃ and Study of their Electrical Resistivity and Magnetic Properties	Arignar Anna Government Arts College	Namakkal, Tamil Nadu	20-21 Jul 2017
S. Ravi	Experimental Techniques in Condensed Matter Physics	St. Anthony College Shillong	Shillong, Meghalaya	7-9 Sep 2017
S. Ravi	Bipolar Switching of Magnetization and Tunable Exchange Bias at Room Temperature in NiCr ₂ O ₄ based Compounds	Tezpur University	Tezpur	29-31 Aug 2017
S. Ravi	Experimental Techniques in Materials Synthesis and Characterization	National Institute of Technology Meghalaya	Shillong, Meghalaya	26-28 Mar 2018
D. Maity	Connecting CMB and dark matter through reheating	3rd LeCosPA Symposium	Taipei, Taiwan	27-29 Nov 2017
Amarendra K. Sarma	Quantum Nano-Physics: a brief overview	Gauhati University	Guwahati	7 Apr 2017
Ashwini K. Sharma	Understanding Lasers	Nagaon College	Nagaon, Assam	28 Oct 2017
Girish S. Setlur	Non-chiral bosonization of strongly inhomogeneous Luttinger liquids	Physical Research Laboratory	Ahmedabad	14 Mar 2018

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Ananthakrishnan Srinivasan	Microwave absorption in Ni-Mn-X based Heusler alloy thin films	IIT Bombay	Mumbai	5-6 Feb 2018
Ananthakrishnan Srinivasan	Comparison of field swept ferromagnetic resonance methods – A case study using Ni-Mn-Sn films	Govt. Engineering College, Bikaner	Bikaner, Rajasthan	24-25 Nov 2017
Subhash Thota	Unusual Magnetic Behavior of few Ferromagnetic Spinel Nanostructures	National Conference on Nanomaterials and its Applications (NCNA-17)	Dibrugarh University	20 Sep 2017
Subhash Thota	Dynamical studies of Ferroelectric-Mott insulator composites and Ferrimagnetic Spinel	Rajiv Gandhi University of Knowledge Technologies	Telangana	18-20 Dec 2017
Subhash Thota	High Frequency Dielectric and Optical Absorption Studies of Ferroelectric and Ferrimagnetic Spinel	Mahindra Ecole Centrale (MEC) College of Engineering	Hyderabad	19 Dec 2017
Subhash Thota	Novel Electronic Materials	Annasaheb Dange College of Engineering & Technology	Ashta, Maharashtra	26 Dec 2017

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. Anuj Nandi	ISRO	Disk-Jet coupling of Galactic Black Hole sources: Observational findings	4 Apr 2017
Prof. Toru Okuda	Hokkaido University of Education, Japan	Black holes and computer simulation	5 Apr 2017
Dr. P. K. Raina	IIT Ropar	Current Perspective of Double Beta Decay	17 Apr 2017
Mr. Tapobroto Bhanja	IIT BHU	Superspace Unitary Operators for Non-Abelian Gauge Theory	27 Apr 2017
Prof. D. V. Ahluwalia	IITG	On the new spin one half fermions	28 Apr 2017
Dr. Rudra Sekhar Manna	Center for Electronic Correlations and Magnetism Augsburg University, Germany	Low-dimensional frustrated quantum magnets in triangular and honeycomb lattices	8 May 2017
Dr. Srijit Bhattacharjee	IIIT Allahabad	Mass inflation instability in Black Holes	24 May 2017
Dr. Arijit Bhattacharyay	IISER Pune	Resistive regime of a 1D superconductor: revisiting Langer-Ambegaokar-McCumber-Halperin theory	26 May 2017
Dr. Bhaswar Ghosh	Visiting Scientist Institute of Mathematical Sciences	A systems biology approach to understand feedback design in a cellular signaling system	7 Jun 2017
Prof. Shung-Ichi Ando	Sunmoon University, Asan, Republic of Korea	Light hyper-nuclei in few-body systems	8 Aug 2017
Dr. Rashidul Islam	Research Associate, IITG	kT-factorization approach to the Higgs boson production at the LHC	13 Sep 2017
Ms. Ishani Das	-	Walking the path of my ancestors: a work in progress	3 Oct 2017

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. Budhaditya Chatterjee	DST Inspire Fellow, Department of Physics, IIT Kanpur	Strongly interacting ultracold dipolar bosons in optical lattice	2 Nov 2017
Prof. David Hagan	CREOL, College of Optics and Photonics, University of Central Florida	Delivered SPIE IIT Guwahati Student Chapter talk on “Making Photons Interact: An Introduction to Nonlinear Refraction and Absorption”	6 Nov 2017
Dr. Naresh Chadha	HOD Department of Applied Mathematics, Amity School of Applied Sciences, Amity University Haryana	Designing Novel Algorithms for advection dominated time dependent Advection-Diffusion Problems	10 Nov 2017
Dr. Tanmoy Das	Indian Institute of Science, Bangalore	The Non-Hermitian World	11 Nov 2017
Prof. Amitava Raychaudhuri	University of Calcutta	Balancing the left with the right: A road to unity	20 Nov 2017
Dr. V Suryanarayana Mummidi	Post-doc, HRI	Higgs mass in Gauge mediated SUSY breaking	21 Nov 2017
Prof. Nirmal Viswanathan	University of Hyderabad	Structured light beams	8 Dec 2017
Prof. Mohammad Sami	Jamia Milia Islamia, New Delhi	Late time cosmic acceleration	14 Dec 2017
Dr. Subhankar Bedanta	School of Physical Sciences Laboratory for Nanomagnetism and Magnetic Materials (LNMM) Chief	Exploring Nanomagnetism	3 Jan 2018
Debarati Roy	University of the Witwatersrand, Johannesburg, South Africa	Current & future prospects for jets at LHC	4 Jan 2018
Dr. Ayon Patra	NPDF, IISC Bangalore	Quintuplet Minimal Dark Matter	11 Jan 2018
Prof. Betti Hartmann	Instituto de Física de São Carlos (IFSC), University of Sao Paulo, Brazil	Microscopic structures of line-like topological defects	18 Jan 2018
Prof. V. K. Tripathi	IIT Delhi	Graphene Plasmons	29 Jan 2018
Jim Libby	IIT Madras	Belle II: flavour physics at the intensity frontier	23 Mar 2018
Prof. V. Shenoy	IISc Bangalore	The Tenfold Way To Amorphous Topological Insulators	26 Mar 2018

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
D. V. Ahluwalia	Colloquium on Dark Energy	Self	15 Dec 2017	National	-
Bipul Bhuyan	Physics Academy of the North East: Foundation day Celebration	Physics Academy of North East (PANE)	6 Apr 2017	National	100
Sayan Chakrabarti (Convener)	29 th Meeting of the Indian Association for General Relativity and Gravitation	DAE	18-20 May 2017	National	160
Subhradip Ghosh	IIT system and Tokyo Tech	Tokyo Institute of Technology	4 Dec 2017	International	30

Amarendra K. Sarma (Director), T. N. Dey (Co-Director)	SERB School on “Frontiers in Quantum Optics”	DST	1-19 Dec 2017	National	62
Tapan Mishra (Convener), Kanhaiya Pandey (Co-convener), Pankaj. K. Mishra (Co-convener)	Recent Trends in Cold and Ultracold Matter	IMSc, BRNS, Toptica, NISER and Pfeiffer Vacuum and IIT Guwahati	27-29 Mar 2018	International	80
Pankaj. K. Mishra (Coordinator)	5 th International Conference on Complex Dynamical Systems and Applications	IIT Guwahati	4-6 Dec 2017	International	120
Pankaj. K. Mishra (Jt. Convener)	Summer school and Discussion Meeting on Buoyancy-driven flows, International School	ICTS	12-15 Jun 2017	International	100
SPIE-IITG student chapter	One-Day Workshop on Vacuum Technology and Its application In Optical Science held on 19th August, 2017	PIE IITG Student Chapter and Pfeiffer Vacuum pvt. Ltd in association with Department Of Physics, IIT Guwahati	19 Aug 2017	National	126

PATENTS

Name of Faculty and co researcher	Name	Date Applied/Granted	Application No.
Ranjan Kalita, S. S. Goutam Buddha, B. R. Boruah	A system and method for laser beam scanning with periodic switching of polarization of the beam	21 Feb 2018	201831006652

AWARDS AND HONOURS

- Dr. Bibhas Ranjan Majhi received Rashtriya Gaurav Award from Indian International Friendship Society, New Delhi in October, 2017.
- Dr. Bibhas Ranjan Majhi received Best Citizens of India Award from Best citizen publishing house, New Delhi in November, 2017.
- Prof. P. K. Giri is awarded Visiting Research Fellowship, 2018, University of Birmingham, UK.
- Prof. Perumal Alagarsamy received NIMS Global Collaboration Fellowship Program FY -2017.
- Prof. Perumal Alagarsamy received JSPS Invitational Fellowship for Research in Japan (Long term FY-2018).
- Dr. Tapan Mishra has been invited to become an Associated Faculty of ICTS-TIFR, Bangalore.

STUDENTS' ACHIEVEMENTS

- S. S. Goutam Buddha received the second best poster presentation OSI award in the Optical Society of India

Conference, Nov. 2017.

- Ramakrishna Madaka received best poster award at “International Conference on Sophisticated Instruments in Modern Research (ICSIMR-2017)”, Central instrument facility, IIT Guwahati, Guwahati, India, June 30 – July 1, 2017.
- Ramakrishna Madaka received best poster award and a cash prize of Rs. 2000/- at “19th International workshop in the Physics of semiconductor devices (IWPSD-2017)”, IIT Delhi, Delhi, India, Dec. 11-15, 2017.
- Bibhuti B. Dash's poster titled “Magnetic characterization of orthochromites using vibrating sample magnetometer” got Best Poster Award at International conference on Sophisticated Instruments in Modern Research held at IIT Guwahati during June 30 -July1, 2017..
- Prahlad Kumar Baruah received the best poster award for the paper entitled “Effect of laser energy on the SPR and size of silver”, DAE Solid state Physics Symposium-2017, Bhabha Atomic Research Centre (BARC), Mumbai, Dec. 26-30, 2017.

- Eshita Mal received the best poster award for paper entitled “Characterization of laser produced tungsten plasma in air using time resolved laser induced breakdown spectroscopy (LIBS)”, National Laser Symposium (NLS), Bhabha Atomic Research Centre (BARC), Mumbai, Dec. 20-23, 2017.
- The article entitled, “Controllable optical bistability in a hybrid optomechanical system”, published in Journal of the Optical Society of America B (JOSA B) 33, 1335 (2016), by Bijita Sarma and Amarendra K. Sarma is included in ‘Top Downloaded articles in Quantum Optics’ from JOSA B in 2017.

SPECIAL MENTION

- The article entitled “Reflections of the observer and the observed in quantum gravity”, Int. J. Mod. Phys. D26 (2017), no.12, 1743001” by Prof. D. V. Ahluwalia was given an ‘Honourable Mention’ by the Gravity Research Foundation (GRF).
- Prof. D. V. Ahluwalia published a collection of essays from Gravity Research Foundation under the hat of Special Papers Editor in the year 2017.
- Best paper Award for paper “Planar Plasmonic Terahertz Waveguides for Sensor Applications” in 20th International Conference on Optics, Lasers and Spectroscopy, held in Zurich on Jan. 15-16, 2018.

Prof. Bipul Bhuyan has been elected as the General Secretary of Physics Academy of North East (PANE) for a two years term from 2017-2019

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1	Agarwal, Pratima	IIT Kanpur	Professor	Thin films and hetero junction solar cells, nanocrystalline Semiconductors, nanomaterials, optoelectronic properties
2	Ahluwalia, Dharam Vir	Texas A&M University, USA	Visiting Professor	Mass dimension one fermions, dark matter, neutrino oscillations and mixing matrix, gravitationally-induced phases, interface of the gravitational and quantum realms
3	Alagarsamy, Perumal	IIT Kharagpur	Professor	Condensed Matter Physics (Experimental); Magnetism, Nanostructured Materials, Nanocrystalline Materials, Magnetic Thin Films, Metallic Glasses.
4	Basu, Saurabh	IIT Kanpur	Professor	Condensed Matter Physics (Theory); High T C superconductors, Optical lattices, Transport in Magnetic semiconductors
5	Bhattacharya, Subhaditya	HRI, Allahabad	Assistant Professor	High Energy Physics (Theory), Phenomenology of Standard Model and Beyond, Supersymmetry, Dark Matter, LHC
6	Bhuyan, Bipul	Delhi University	Professor	High Energy Physics (Experiment); CP violation, Rare K and B meson decays, ILC R & D
7	Borah, Debasish	IIT Bombay	Assistant Professor	Particle Physics Model Building, Astroparticle Physics and Cosmology
8	Boruah, Bosanta Ranjan	Imperial College London	Professor	Lasers and Optics (Experiment & Theory); Programmable Diffractive Optics, Confocal Microscopy, Phase Stepping Interferometry, Vectorial Diffraction Theory
9	Chakrabarti, Sayan Kumar	SINP, Kolkata	Assistant Professor	High Energy Physics (Theory), General relativity, Black hole perturbations, Gravitational waves, Cosmology
10	Chakraborty, Sovan	SINP, Kolkata	Assistant Professor	Astroparticle Physics, High Energy Astrophysics, Neutrino Oscillations, Supernovae Neutrinos, Ultra High Energy Neutrinos & Dark Matter.
11	Das, Santabrata	SNBNCBS, Kolkata	Associate Professor	Astrophysics (Theory); Astrophysical flows around compact objects, Ultra high energy cosmic rays

Sl. No.	Name	PhD	Designation	Areas of Interest
12	Dey, Tarak Nath	PRL, Ahmedabad	Associate Professor	Quantum Optics (Theory); Coherent control of pulse propagation, Nonlinear optics, Optical solitons, Negative index media, Bose-Einstein condensates
13	Ghosh, Subhradip (Head of the Department)	SNBNCBS, Kolkata	Professor	Condensed Matter Physics (Theory); Electronic Structure theory, Ordering and Phase stability of disordered alloys, Vibrational properties of metallic alloys
14	Giri, Pravat Kumar	IIT Kanpur	Professor	Condensed Matter Physics (Experimental); Semiconductor nanostructures, Ion-solid interactions, Optoelectronic materials & devices, Nanotechnology
15	Kadolkar, Charudatt Y.	IIT Bombay	Associate Professor	Condensed Matter Physics (Theory); Magnetism, Defects in Ionic Materials, Group Theoretical approaches to Molecular Problems
16	Khare, Alika	IIT Kanpur	Professor	Laser and Photonics (Experiment and Theory)
17	Khijwania, Sunil K.	IIT Delhi	Professor	Fiber Optics (Experiment & Theory); Fiber & Integrated Optics, Photonic Crystal Fiber and Applications, Surface Plasmon Resonance based Sensors, Fiber Bragg Gratings and based Devices, Fiber Optic Sensor, Bio/Nano-Photonics
18	Kumar, Gagan	IIT, Delhi	Associate Professor	Terahertz Plasmonics and metamaterials, Guided Wave Devices, Ultrafast Spectroscopy
19	Kumar, Meduri Chakravartula	University of Hyderabad	Assistant Professor	High Energy Physics (Theory); Particle Physics, Higher order QCD corrections for LHC and Tevatron, Standard Model and beyond
20	Maity, Debaprasad	IACS, Kolkata	Assistant Professor	High Energy (Theory); Cosmology, Ads/CMT
21	Maiti, Uday Narayan	Jadavpur University, Kolkata	Assistant Professor	Graphene, carbon nanotube, Inorganic nanostructures, Energy storage and conversion, Nanomaterials based electronic devices
22	Majhi, Bibhas Ranjan	SNBNCBS, Kolkata	Assistant Professor	High Energy Physics (Theory); General theory of relativity, Field theory on curved spacetimes, Black holes, Cosmology, Thermodynamical aspects of gravity, Fluidgravity correspondence
23	Mishra, Pankaj Kumar	IIT Kanpur	Assistant Professor	Nonlinear Physics (Theory and Simulation): Quantum turbulence, Instabilities and turbulence in thermal convection and MHD, Supercooled liquid and glasses
24	Mishra, Tapan	IIA, Bangalore	Assistant Professor	Condensed Matter Physics (Theory); Quantum Phase Transitions, Many-body physics with strongly correlated quantum gases in optical lattice.
25	Nandi, Soumitra	University of Calcutta	Assistant Professor	High Energy Physics (Theory); Quark and Lepton Flavour Physics, Flavour Symmetries, CP violation, precision calculations in the SM, Special interest in QCD, Heavy Quark Effective Theory and Soft Collinear Effective Theory
26	Nandy, Malay Kumar	IIT Kanpur	Associate Professor	Theoretical Physics, Statistical Physics, Condensed Matter Physics, Turbulence Field Theory, Plasma Physics, Quantum Computation

Sl. No.	Name	PhD	Designation	Areas of Interest
27	Padmanabhan, Padma Kumar	IISc, Bangalore	Professor	Condensed matter (Theory); Atomistic Modeling and Simulation of Condensed States of Matter
28	Pal, Dilip	TIFR, Mumbai	Professor	Low Temperature Physics and Material Science (Experimental); Strongly Correlated Electron Systems, Vortex states in superconductors, Superconductivity and Magnetism
29	Pamu, Dobbidi	University of Hyderabad	Associate Professor	Condensed Matter Physics; High-k and low loss materials, Ferroelectrics Ceramics, Oxide thin films Nanomaterials
30	Pandey, Kanhaiya	IISc, Bangalore	Assistant Professor	Atomic, molecular and optical physics (Experiment); Laser cooling and trapping of atoms, BEC, Many body physics, artificial gauge field; Atomic coherence, EIT, magnetometry; Spectroscopy and frequency metrology of optical-atomic transitions
31	Poulose, Poulose	PRL, Ahmedabad	Professor	Theoretical Physics; High energy physics phenomenology, CP violation, Mass Generation mechanism, Low energy Gravity
32	Raha, Udit	University of Bonn, Germany	Assistant Professor	Quantum Chromodynamics and Nuclear Effective Field Theories
33	Ravi, Seenipandian	University of Hyderabad	Professor	Condensed Matter Physics (Experimental); Magnetism, Superconductivity, Low temperature Physics
34	Santra, Sitangshu Bikas	Bose Institute, Kolkata	Professor	Condensed Matter Physics (Theory); Condensed Matter Physics, Statistical Physics
35	Sarma, Amarendra Kumar	IIT Delhi	Professor	Nonlinear and Quantum Optics (Theory); Quantum Optomechanics, Optical Force, Cavity QED, Coherent control, Extreme Nonlinear Optics, Solitons, Nonlinear Fiber Optics, Nonlinear Dynamics, Plasmonics and Transformation Optics, Parity-time Symmetric Optics
36	Setlur, Girish Sampath	University of Illinois	Professor	Theoretical Physics; Optoelectronic properties of graphene, Nonchiral bosonization of fermions in one and higher dimensions
37	Sharma, Ashwini Kumar	IIT Kanpur	Associate Professor	Laser ablation, characterization, deposition and applications of nanostructures
38	Sil, Arunansu	University of Calcutta	Associate Professor	High Energy Physics & Cosmology (Theory); Phenomenology of Physics beyond the Standard Model, Supersymmetry and its breaking, Neutrino Physics, Matter-antimatter asymmetry of the Universe, Inflation
39	Srinivasan, Ananthakrishnan	IISc, Bangalore	Professor	Condensed Matter Physics (Experimental); Glasses and Disordered Materials, Thin Films, Metallic Alloys, Nanophase materials, Shape Memory Alloys
40	Thota, Subhash	IIT Kanpur	Associate Professor	Material Science and Engineering; Magnetic Nanostructures, Oxide Heterostructures, Superlattices, Magnetocaloric effects, Semimagnetic semiconductors, Bandgap Engineering

CENTRE FOR ENERGY

The Centre at a Glance
Year of Establishment: 2004
Academic Programmes Offered: Doctor of Philosophy (PhD) Master of Science by Research [MS (R)]
Total Faculty Strength: 2 • Assistant Professor: 2 Faculty Members Associated: 20
Total Student Strength: 101 PhD: 74 MS (R): 27
New Students Joined in 2017-2018: 31 PhD: 17 MS (R): 14

LABORATORY FACILITIES

- i. **Analytical Laboratory:** Energy research demands a proper analytical set-up for quantitative as well as qualitative analysis of samples like biomass, biofuels, etc. Centre for Energy houses a state of the art analytical lab for both quantitative and qualitative analysis. Some of the tests that can be performed here are -Characterization of fuels (Calorific value, viscosity, flash point, fire point, cloud & pour point, cetane index), Proximate as well as ultimate analysis, Gas Chromatograph analysis. The laboratory is equipped with Gas Chromatograph (GC), Thermo-Gravimetric Analyzer (TGA), High Performance Liquid Chromatograph (HPLC), Oxygen bomb calorimeter, Vacuum rotary evaporator, Lyophilizer, Kjeldahl apparatus for nitrogen estimation etc. to name a few.
- ii. **Biofuel Laboratory:** The Biofuel Laboratory is primarily focused in developing a sustainable process design for various biofuel productions and its bioconversion to various value added byproducts. The various types of facilities available in this laboratory are: Development of thermo-chemical and biochemical conversion routes to efficiently generate renewable biofuels (Bio-butanol, Bio-ethanol) from various feedstock types—rice straw, glycerol, lignocelluloses, Microalgae and Jatropa (Bio-diesel production); Ultrasound enhanced conversion of sugars to fuels and chemicals; Glycerol bioconversion to various value added product (1, 3-Propanediol, DHA); and Biohydrogen production.
- iii. **Fuel Cells Laboratory:** Study of fuel cells has assumed immense importance because fuel cells have many advantages-clean, high efficiency, silent / vibration-free, reliable, responsive, high quality power, unlimited runtime, independence from traditional infrastructure, use a variety of fuels, high power density, variable operating temperatures, complementary technologies, design flexibility etc. The laboratory is emphasizing on microbial and enzymatic fuel cell as an alternative source of energy and power generation. In this endeavor, researchers in the lab have actively worked in enzymatic fuel cell with alcohol oxidase in bionanode and laccase in biocathode. We are also carrying out work in PMFC i.e. photosynthetic microbial fuel cell using cyanobacteria and other photosynthetic bacteria in anode as a means of self-sustainable power generating profile for a clean, green energy initiative and technology for the future. Facilities available in this laboratory are: Fabrication and characterization of bioelectrodes for biofuel cell and biosensors applications, Facility for development and characterization of composite proton exchange membranes for fuel cell applications, Potentiostat for cyclic voltametric study, amperometric study and other electrochemical measurements.
- iv. **X-ray Crystallography Laboratory:** This houses the facility for sample preparation for studies on structure of enzymes and their interaction with nanostructured materials for bioelectronic devices such as biofuel cell & other applications.
- v. **Energy Efficiency Laboratory:** Fuel testing facility (calorific value and viscosity), proximate analysis facility, anemometer, pump testing setup, biomass gasification unit, flue gas analyzer, GC for biogas analysis, natural convection grain drier, fuel cell demonstration unit, fibre analysis system, Kjeldahl apparatus for nitrogen estimation, fume hood etc. A portion of the energy efficiency laboratory is located in the technology complex (TC) to house the noisy, rugged and robust facilities like biomass gasifier units, pump testing set-up etc.
- vi. **The Bioenergy laboratory** is developing the necessary knowledge and range of technologies to improve biofuel crops with more efficient biofuel and bioenergy. The lab is also involved in development of micropropagation technology for commercial scale production of clonal (genetically identical) plant materials of high yielding biofuel plants. The laboratory is also planning to employ automation (using bioreactor) in micropropagation to further reduce the cost of clonal plants. The main research activities in the area of bioenergy involves the following -Micropropagation and Genetic Engineering of Bio Fuel plants, Tissue culture of energy and bio-fuel crops, Bioprocess Engineering for yielding value added products, Genetic Engineering, Extraction of oil and other value added products, and Microalgae based biodiesel production.
- vii. **Centre for Energy** also houses a solar energy lab for dedicated research towards development and testing of thin films for solar cells. Demonstration unit for efficient use of solar energy; characterization and study of the photovoltaic module; energy spectrum measuring facility; spectral response/ photoconductivity/ quantum; efficiency and other transport measurements in the presence of light of photovoltaic modules, materials and devices. The transport measurements are also possible as a function of temperature in the temperature range 250–450K. A facility for preparation of thin films by physical vapor deposition method is also available. The facility for the fabrication of thin film and heterojunction solar cells based amorphous and microcrystalline silicon is also available in collaboration with Physics department.
- viii. This laboratory has been developed at the Technology Complex (TC) to house the noisy, rugged and robust equipments. The major facilities in Process Development Lab are Gasification units (both Downdraft & Fluidized Bed), IC Engines setup, Pump testing setup, and Gas to Liquid conversion setup. Some of the equipment available are Gas analyzer, Pelletizer, Gas Chromatograph, Fibre analysis system etc.
- ix. This is a continuous project funded by Ministry of New and Renewable Energy (MNRE), New Delhi, which has

been functioning from the Centre for Energy for promotion of biogas technology in the NE states since 2006. It is involved with activities such as providing training programme for turnkey workers, providing construction cum maintenance training, organization of users training and awareness programme, survey of and technical support to biogas digesters installed in different states of the NE India.

- x. This laboratory is located at Technology Complex and houses facility for developments to petrol and diesel engines for testing of various alternative fuels.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

IV Curve tracer, Rotary torque sensor, incubator shaker (2 nos.), programmable DC source, etc.

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Biosensor, Biofuel cells, Photovoltaics, Thin films, Semiconductor materials and devices, Biomass (microorganism/ waste/ plant materials) to biofuel/ bio-oil/ biodiesel /biogas/ power through physical/ chemical/ biological means, Clean coal technology, Combustion and energy efficiency of systems, Sustainable biofuel, Bio-energy and Green Engineering, Bio-mass gasification, Wind Energy Conversion, Energy Conservation and Renewable Energy, Solar energy conversion.

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Prof. Pratima Agarwal	International Conference on Thin Films, ICTF-2017	NPL, New Delhi	13-17 Nov 2017	International
Prof. Arun Goyal	Bioenergy-Urja Utsav by Ministry of Petroleum and Natural Gas	Pune	7-8 Jul 2017	National
Prof. Arun Goyal	3rd Asia-Oceania Sonochemical Society Conference (AOSS-3).	SRM University, Kattankulathur, Chennai	14-16 Sep 2017	International
Prof. Arun Goyal	Bioprocessing India, Recent Trends in Bioprocessing for Healthcare, Energy and Environment	IIT Guwahati	9-11 Dec 2017	International
Dr. Lepakshi Barbora	Workshop on 'Science Management and Administration', organized by British Council in collaboration with Indian Institute of Science Education and Research (IISER), Pune	IISER, Pune	18-21 Sep 2017	National
Dr. Lepakshi Barbora	National Conference on Technological Empowerment of Women, organized by The National Academy of Sciences, India (NASI)	Vigyan Bhawan, New Delhi	8-9 Mar 2018	National
Prof. Vijayanand S. Moholkar	3 rd Asia-Oceania Sonochemical Society Conference (AOSS-3).	SRM University, Kattankulathur, Chennai	14-16 Sep 2017	International
Prof. Vijayanand S. Moholkar	International Conference on Emerging Trends in Biotechnology for Waste Conversion ETBWC	CSIR-National Environmental Engineering Research Institute, Nagpur	8-10 Oct 2017	International
Prof. Vijayanand S. Moholkar	6th International Conference on Advances in Energy Research 2017	IIT Bombay	12-14 Dec 2017	International
Prof. Vijayanand S. Moholkar	Indo-Japan International Conference on New Insights into Multifunctional Catalysis for Biomass Transformation	CSIR-National Chemical Laboratory, Pune	18-19 Jan 2018	International

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Prof. Vijayanand S. Moholkar	9 th International Congress of Environmental Research	Amity University Gwalior	8-10 Feb 2018	International

INVITED LECTURES: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Dr. Pankaj Kalita	Investigation of biomass gasifier product gas composition and its characterization	Assam Science and Technology University	Jalukbari	16 Mar 2018
Dr. Pankaj Kalita	SOH estimation of Li-Ion battery	Shantou University	China	19 Dec 2017
Dr. Pankaj Kalita	Introduction to Renewable Energy in the ISHAN-VIKAS	IIT Guwahati	Guwahati	7 Dec 2017
Dr. Pankaj Kalita	“Clean energy conversion technologies – Scope, challenges and opportunities” in the national Conference on “Non-Conventional Energy: Harvesting Technology and Its Challenges” (NEQIP) 17 th – 18 th November 2017	Assam Engineering College	Jalukbari	17 Nov 2017
Dr. Pankaj Kalita	Harnessing Renewable Energy	Northeast energy conclave 2017	Guwahati	28 Jul 2017
Dr. Pankaj Kalita	Renewable Energy for Sustainable Future	USTM	Meghalaya	4 May 2017
Prof. Pratima Agarwal	Optoelectronic properties of nanocrystalline silicon based superlattice structures	NPL	New Delhi	15 Nov 2017
Prof. Pratima Agarwal	Advances in Solar cells: Materials and Technology	NIT Silchar	Silchar	15 Mar 2018
Prof. Arun Goyal	Recombinant chondroitin AC lyase (PsPL8A) from <i>Pedobacter saltans</i> and its applications in therapeutics and functional foods	Jiangnan University Wuxi	Wuxi, China	21-24 May 2017
Prof. Arun Goyal	Therapeutic and functional food applications of chondroitin AC lyase (PsPL8A) from <i>Pedobacter saltans</i>	Punjab University	Chandigarh	21 Jul 2017
Prof. Arun Goyal	Emerging Trends in Protein Structures under Refresher Course entitled “Emerging Trends in Science & Technology – IDC (I)”.	Gauhati University	Guwahati	6 Nov 2017
Prof. Vijayanand S. Moholkar	Bioethanol production from <i>Parthenium hysterophorus</i> : Process development, optimization and intensification	Assam Engineering College	Guwhati	17-18 Nov 2017

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Prof. Vi-jayanand S. Moholkar	Bioethanol production from Parthenium hysterophorus: Process development, optimization and intensification	Tezpur University	Tezpur, Assam	23-24 Feb 2018
Prof. Vi-jayanand S. Moholkar	1. Topic: Ultrasound-Assisted Synthesis of Biodiesel with Homogeneous and Heterogeneous Catalyst 2. Biobutanol: Science, Engineering, and Economics	Kurukshetra University	Kurukshetra, Haryana	19-25 Mar 2018

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. Akhil Garg	Shantou University	Research Collaboration	12 Jan 2018
Dr. XenPeng Bin	Shantou University	Research Collaboration	12 Jan 2018
Prof. Eduardo Corton	University of Buenos Aires, and IQUBICEN-CONICET, Argentina	Exchange of research ideas and future research collaborations in the area of Biosensors and Microbial fuel cell	31 Oct-31 Nov 2017

PATENTS

No. of Patents Applied with details (03)

- Amit Kumar Baghel, Shashank Kulkarni, Sisir Kumar Nayak and Senthil Kumar, "Parabolic Pyramidal Horn antenna", Indian patent application number:201831002285, Date of publication: 09/02/2018.
- Mrutyunjay Maharana, Alakesh Nanda, Sisir Kumar Nayak and Niranjana Sahoo, "Natural and forced convection imposed accelerated thermal ageing simulator to predict the life of the insulating oil before using in transformer", Indian patent application number: 20171045816 A, Date of publication: 05/01/2018.
- Moon Moon Bordeori, Mrutyunjay Maharana, Sisir Kumar Nayak and Niranjana Sahoo, "Design and development of automated open beaker oxidative ageing assessment apparatus", Indian patent application number: 201731047043 A, Date of publication: 05/01/2018.

AWARDS AND HONOURS

- Prof. A. Goyal received the following awards/honours in 2017-18:
 - Excellence in Carbohydrate Research (ECR) Award-2017" by Association of Carbohydrate Chemists and Technologists, India, in recognition of outstanding contribution in the area of Structure and functions of carbohydrates and carbohydrate enzymes. The Award carrying a plaque, certificate and a cash prize of Rs. 30000/- offered by Sunita Hydrocolloids Pvt. Ltd., Jodhpur, was conferred during CARBO-XXXII Conference at Indian Institute of

Technology Kharagpur, Dec 18-20, 2017.

- Invited to chair a session in 7th International Forum on Industrial Bioprocessing (IFIBiop 2017), May 21-24, Wuxi, China.
 - DST Award for participation in 24th International Union of Crystallography Congress (IUCr2017), 21-28 August 2017, Hyderabad, India.
 - Invited as "Member Expert Committee" of NER Twinning RnD program of NERBPMC, Nov 17, 2017.
 - Elected as Executive member, Association of Carbohydrate Chemists and Technologists (India), ACCT(I) 18, Nov 2017 for two years.
 - Invited as "Member Expert Committee" of NER Twinning RnD program of NERBPMC, Feb 19-20, 2018.
 - Invited by DBT, Ministry of Science and Technology under Mission Innovation Program for "International Conference on Sustainable Biofuel 2018" on February, 26-27, 2018 at New Delhi, India.
- Prof. V. S. Moholkar was elected as Fellow of Institution of Chemical Engineers (IChemE) London, U. K.

STUDENTS' ACHIEVEMENTS

- Mr. Shashank S. Kulkarni, MS(R) graduate of Centre for Energy in 2017-18, (currently project staff of EEE dept.) and Mr. Amit Kumar Baghel (Research Scholar of Department of EEE dept.) have jointly received the Gandhian Young Technological Innovation (GYTI) 2018 award for

the project titled “Feasibility Study of Wireless Power Transfer using Metamaterial” from Honourable President of India in Rashtrapati Bhawan, New Delhi on March 19, 2018. The project work was carried out under the supervision of Dr. Sisir Kumar Nayak (Dept. of EEE) and Mr. D. Senthil Kumar (MTRDC, Bangalore).

- ii. Mrutyunjay Maharana received best poster award at 7th International Symposium on Electrical Insulating Materials (ISEIM) held at Toyohashi, Japan, during 12th-15th Sep 2017.
- iii. Asha Yadav received best poster award and a gift voucher of Euro 250 by springer at “International Conference on Energy options for tomorrow: Technology to Sustainability”, held at The Neotia University, Kolkata, from 17-19th April 2017.
- iv. Asha Yadav received best oral presentation award at “International Conference on Thin Films”, held at NPL, New Delhi from 13-17th November, 2017.
- v. Pilik Basumatary received best paper award and a cash prize of Rs. 2000/- at “International Workshop on Physics of Semiconductor Devices”, held at IIT Delhi from 11-15th December, 2017.
- vi. Asha Yadav received first prize in poster presentation

at “Research Conclave-2018”, held at IIT Guwahati from 08-11th March, 2018.

- vii. Pilik Basumatary received second prize in poster presentation at “Research Conclave-2018”, held at IIT Guwahati from 08-11th March, 2018.
- viii. Shubhangi Bhardwaj received third prize in poster presentation at “Research Conclave-2018”, held at IIT Guwahati from 08-11th March, 2018.
- ix. Shubhangi Bhardwaj received Young Scientist award at “Advances in Spectroscopic Techniques and Materials”, held at IIT (ISM)-Dhanbad from 14-16th March, 2018.
- x. Mriganaka Saha received poster prize award by Material Horizons, RSC and a gift of journal subscription for 1 year Materials Horizons journal, RSC in ICANN 2017 organized by IIT Guwahati, 18th-21st December 2017
- xi. Philip Bernstein Saynik received best poster award and a gift voucher of Euro 150 in 2nd International Conference on Waste Management. Recycle 2018. IIT Guwahati 22nd-24th February 2018.
- xii. Mriganaka Saha received SRISTI-BIRAC Appreciation Award of INR Rs. 1,00,000/- during the winter school program organized by SRISTI Ahmedabad, 5th-26th February 2018

CORE FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1	Chaturvedi, H.	University of North Carolina (UNCC) at Charlotte, USA	Assistant Professor	Directed assembly of hybrid functional nanomaterials, lithography fabrication, prototype development of electro optic wearable devices, biosensors, Flexible electronics, solar cells
2	Kalita, P.	IIT Guwahati	Assistant Professor	Clean Energy Technologies, Solar Thermal, Energy Storage

FACULTY MEMBERS ASSOCIATED WITH THE CENTRE

Sl. No.	Name	Designation and Department
1	Agarwal, P.	Professor, Department of Physics
2	Das, D.	Associate Professor, Department of Biosciences and Bioengineering
3	De, Mahuya	Associate Professor, Department of Chemical Engineering
4	Dubey, V. K.	Professor, Department of Biosciences and Bioengineering
5	Goyal A.	Professor, Department of Biosciences and Bioengineering
6	Goswami, P.	Professor (HAG), Department of Biosciences and Bioengineering
7	Goud, V. V.	Associate Professor, Department of Chemical Engineering
8	Kalita, K.	Associate Professor, Department of Mechanical Engineering
9	Kulkarni, V.	Associate Professor, Department of Mechanical Engineering
10	Mahanta, P.	Professor, Department of Mechanical Engineering
11	Mohanty, K.	Professor, Department of Chemical Engineering
12	Moholkar, Vijay S (Head of the Centre)	Professor, Department of Chemical Engineering

Sl. No.	Name	Designation and Department
13	Muthukumar, P.	Professor, Department of Mechanical Engineering
14	Nayak, S. K.	Associate Professor, Department of Electronics and Electrical Engineering
15	Nemade, H. B.	Professor, Department of Electronics and Electrical Engineering
16	Saha, U. K.	Professor, Department of Mechanical Engineering
17	Sahoo, N.	Professor, Department of Mechanical Engineering
18	Sahoo, L.	Professor, Department of Biosciences and Bioengineering
19	Senthilmurugan, S.	Associate Professor, Department of Chemical Engineering
20	Uppaluri, R. V. S.	Professor, Department of Chemical Engineering

CENTRE FOR THE ENVIRONMENT

The Centre at a Glance

Year of Establishment: 2004

Academic Programmes Offered:

Doctor of Philosophy (PhD)

Faculty Members Associated: 40

Total Student Strength: 51

PhD: 51

New Students Joined in 2017-2018:

PhD: 10

LABORATORY FACILITIES

- Research laboratory – I: (Location: first floor, I block) It is used as workplace by research students to carry out routine laboratory experiments.
- Research Laboratory – II: (Location: second floor, I block) It is used as workplace by research students to carry out routine laboratory experiments.
- Analytical laboratory: (Location: Research lab-II, second floor, I block) It is equipped with sophisticated equipment essential for environmental research.
- Computational laboratory- (Location: Research lab-II, second floor, I block). This facility is accessible to the students for their computer related work. At present 20 computers are available for the users.
- Institutional Biotech Hub Laboratory including mammalian cell culture laboratory and silk rearing and culture facility.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

Equipment and Facilities

- Dynamic Light Scattering (laser based)
- Analytical HPLC system
- RO and Ultrapure water purification system
- Freeze dryer system
- Portable autoclave
- Vacuum pump

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

- Water and Wastewater Treatment
- Solid Waste Management and Recycling
- Environmental Bioremediation/ Environmental Biotechnology
 - Bio-sorption & Bioremediation of heavy metals
 - Bio-filtration for treating Waste Gases and Green Solvents
 - Removal of Toxic and Recalcitrant Compounds
 - Biodegradation/Bio-detoxification of Toxic Wastes
- Environmental Genomics and Proteomics
- Green Chemistry
- Greenhouse gas Capture and Storage.
- Bio-fuels
- Air pollution- Dispersion, Control & Modeling
- Waste Immobilization
- Soil-water-contaminant Interaction
- Contaminant Transport and Retention in Porous Media
- Environmental History
- Environmental Economics
- Green Design
- Global Warming and Climate Modeling
- Seri-biotechnology and Seri-informatics and other related areas

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./ Org.	Place	Date
Prof. Kannan Pakshirajan	Bioprocessing of biomass gasification wastes for production of biofuels and value added products	Adhiyamaan College of Engineering	Chennai, Tamil Nadu	6-7 Mar 2018
Prof. Kannan Pakshirajan	Bioprocessing for waste fed biorefineries	SASTRA	Thanjavur, Tamil Nadu	11-16 Dec 2017
Prof. Kannan Pakshirajan	Novel sulfidogenic bioreactors for metallic wastewater treatment	IIT Guwahati	Guwahati	9-11 Dec 2017
Prof. Kannan Pakshirajan	Evaluation of cheaply produced biochar from biomass gasification effluent for simultaneous polycyclic aromatic hydrocarbon degradation and lipid accumulation by <i>Rhodococcus opacus</i>	Challenges in Environmental Science and Engineering, CESE-2017	Kunming, China	11-15 Nov 2017
Prof. Kannan Pakshirajan	Chitosan production from <i>Penicillium citrinum</i> biomass for value addition and resource recovery from Industrial wastewater	Challenges in Environmental Science and Engineering, CESE-2017	Kunming, China	11-15 Nov 2017
Prof. Kannan Pakshirajan	Bioprocessing strategies for production of biofuels and value addition of waste water and waste sludge	Third winter school, Gifu University	Gifu, Japan	19-21 Dec 2017

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANIZATIONS/INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/Name of Lecture	Date
Dr. S. Venkata Mohan	CSIR-Indian Institute of Chemical Technology Hyderabad	Invited speaker in National Symposium on RAER 2017	5 Jun 2017
Mr. Somnath Sarma	Geology Survey Of India, North Eastern Region, Assam	Invited speaker in National Symposium on RAER 2017	5 Jun 2017
Dr. Suraj Kr. Tripathy	KIIT University, Odisha	Invited speaker in National Symposium on RAER 2017	5 Jun 2017
Ms. Madhurima Sangma	WSSCC- United Nations membership organization, Guwahati, Assam	Invited speaker in National Symposium on RAER 2017	5 Jun 2017
Dr. Bhriugu Prasad Saikia	Ecology and EIA specialist, Guwahati, Assam	Invited speaker in National Symposium on RAER 2017	5 Jun 2017
Dr. Smarajit Ojah	Nagaon Girls' College, Assam	Invited speaker in National Symposium on RAER 2017	5 Jun 2017
Dr. Narayan Sharma	Cotton College State University, Assam	Invited speaker in National Symposium on RAER 2017	5 Jun 2017

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
Prof. Vikash Kr. Dubey (Chairman), Dr. Deepmoni Deka (Convener), Partha P. Bakal, Kaustubh Rakshit (Organizing secretary)	Recent Advancements in Environmental Research (RAER- 2017)	NEC, Shillong, DBT, DST	5 Jun 2017	National	120
Prof. Utpal Bora	Biodiverse-2018	NEC, ICMR	27-29 Jan 2018	International	430
Prof. Utpal Bora	REFRESH-2018	SERB, DST	2 Feb 2018	National	70
Prof. Utpal Bora	Bioconverse-2018 Workshop on Wildlife Ecology and Seri-bioresources	Directorate of Sericulture, Bodoland Territorial Council	30 Jan-1 Feb 2018	National	100

AWARDS AND HONOURS

Prof. Vikash Kumar Dubey elected as FRSB (Fellow, Royal Society of Biology, United Kingdom) January 2018.

STUDENTS' ACHIEVEMENTS

- Ms. Poulami Datta, received Best paper award in "Bio-energy and Biochemical Engineering" category with paper titled "Isolation and Characterization of Crude Oil Degrading Bacteria from Formation Water of Assam Oil Reservoir, India" organized by Indian Institute of Chemical Engineers, CHEMCON 2017 on 30.12.2017
- Ms. Sayanti Ghosh, received Best poster award in "Waste-water Treatment" category with paper titled "Aerobic Granulation in Sequencing Batch Reactors (SBR) and Degradation of Waste Motor Oil" organized by Indian Institute of Chemical Engineers, CHEMCON 2017 on 30.12.2017
- Ms. Visva Bharati Barua received Best Oral Presentation Award with paper titled "Effect of Electrohydrolysis Pre-treatment on Anaerobic digestion of Water Hyacinth" organized by "Research Conclave-2018" on 11.03.2018
- Ms. Sayanti Ghosh, received Best paper award (2nd) in Wastewater treatment category with paper titled "Treatment of Synthetic Oily Wastewater in Aerobic Granular Reactors (AGR)" organized by RECYCLE, 2018, WMRG group, IIT Guwahati on 24.02.2018
- M. Gopi Kiran received best Poster Presentation Award with paper titled "Performance evaluation of sulfidogenic bioreactor systems for continuous removal of heavy metals from wastewater" organized by Research Conclave-2018, IIT Guwahati on 11.02.2018

- M. Gopi Kiran received best Poster Presentation Award with paper titled “Continuous heavy metal removal by sodium alginate immobilized sulfate reducing bacteria” organized by RAER-2017, Centre for the Environment, IIT Guwahati on 05.06.2017
- Ms. Visva Bharati Barua received Best Oral Presentation Award (Runner up) award on her Proposal and presentation on “Utilization of Waste Motor Oil & Oily Wastewater: Degradation and Product Formulation” organized by RAER-2017, Centre for the Environment, IIT Guwahati on 05.06.2017

FACULTY MEMBERS ASSOCIATED WITH THE CENTRE

Sl. No.	Name	Designation and Department
1	Bag, S. Subhendu	Associate Professor, Department of Chemistry
2	Barua, Anamika	Associate Professor, Department of Humanities and Social Sciences
3	Bhabak, Pada Krishna	Assistant Professor, Department of Chemistry
4	Bora, Utpal	Professor, Department of Biosciences and Bioengineering
5	Chakraborty, Saswati	Professor, Department of Civil Engineering
6	Chaturvedi, Rakhi	Professor, Department of Biosciences and Bioengineering
7	Das, Chandan	Associate Professor, Department of Chemical Engineering
8	Das, Gopal	Professor, Department of Chemistry
9	Dasu, V. Venkata	Professor, Department of Biosciences and Bioengineering
10	Dubey, Vikash Kumar	Professor, Department of Biosciences and Bioengineering
11	Dutta, M. K.	Professor, Department of Biosciences and Bioengineering
12	Ghosh, Pranab Kumar	Professor, Department of Civil Engineering
13	Ghosal, Alope Kumar	Professor, Department of Chemical Engineering
14	Gokhale, Sharad	Professor, Department of Civil Engineering
15	Golder, K. Animes	Associate Professor, Department of Chemical Engineering
16	Goud, Vaibhav V.	Associate Professor, Department of Chemical Engineering
17	Goyal, Arun	Professor, Department of Biosciences and Bioengineering
18	Goyal, Kumar Manish	Assistant Professor, Department of Civil Engineering
19	Jawed, Mohammad	Professor, Department of Civil Engineering
20	Kalamdhad, Ajay	Associate Professor, Department of Civil Engineering
21	Kundu, Lal Mohan	Associate Professor, Department of Chemistry
22	Mahanta, Chandan	Professor, Department of Civil Engineering
23	Mandal, Bishnupada	Professor, Department of Chemical Engineering
24	Mandal, Tapas Kumar	Associate Professor, Department of Chemical Engineering
25	Mohanty, Kaustubha	Professor, Department of Chemical Engineering
26	Mukherjee, Chandan	Associate Professor, Department of Chemistry
27	Pakshirajan, Kannan	Professor, Department of Biosciences and Bioengineering
28	Pandey, M. Lalit	Assistant Professor, Department of Biosciences and Bioengineering
29	Patra, Sanjukta	Associate Professor, Department of Biosciences and Bioengineering
30	Patel, K. Bhisma	Professor, Department of Chemistry
31	Purkait, M. K. (Head of the Centre)	Professor, Department of Chemical Engineering
32	Ray, Manabendra	Professor, Department of Chemistry
33	Sarma, Arup Kumar	Professor, Department of Civil Engineering
34	Sastri, V. Chivukula	Associate Professor, Department of Chemistry

Sl. No.	Name	Designation and Department
35	Senthilmurugan, S	Assistant professor, Department of Chemical Engineering
36	Sivaprakasam, K. Senthil	Assistant professor, Department of Biosciences and Bioengineering
37	Tamal, Banerjee	Associate Professor, Department of Chemical Engineering
38	Tamuli, Ranjan	Associate Professor, Department of Biosciences and Bioengineering
39	Tiwari, Pankaj	Assistant Professor, Department of Chemical Engineering
40	Uppaluri, Ramagopal	Professor, Department of Chemical Engineering

CENTRE FOR LINGUISTIC SCIENCE AND TECHNOLOGY

The Centre at a Glance
Year of Establishment: 2014
Academic Programmes Offered: Doctor of Philosophy (PhD)
Total Faculty Strength: 1 Visiting Faculty: 1 Faculty Members Associated: 19
Total Student Strength: 12 PhD: 12
New Students Joined in 2017-2018: 4 PhD: 4

MAJOR AREAS OF RESEARCH AND DEVELOPMENT:

CLST is a multidisciplinary center aimed at research and development in the fields of language analysis language technology development. The center pays special attention to the various languages spoken in North East India and aims to build itself as a resource center for the language of the area in general. The center is currently hosting and executing a few projects that have a truly interdisciplinary team of investigators.

MAJOR INITIATIVES UNDERTAKEN

- Language Identification Systems for the North Eastern languages
- Limited vocabulary automatic speech recognition system for Mizo
- Sentiment and text analytics modules for North Eastern languages
- Keyword spotting and speech recognition in Nagamese and Manipuri

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIUM ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Samudravijaya K.	Summer School on Speech Signal Processing	Gandhinagar	7-12 Jul 2017	National
Samudravijaya K.	Oriental COCOSA	Seoul, Korea	1-3 Nov 2017	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Samudravijaya K.	Pronunciation Lexicon Preparation	Centre for Development of Advanced Computing	Mumbai	18 Jul 2017
Samudravijaya K.	Speech Recognition system building using HTK toolkit	Rajiv Gandhi Institute of Technology	Kottayam	7-8 Aug 2017
Samudravijaya K.	Automatic Speech Recognition	Bharat Electronics Limited	Bengaluru	30 Aug 2017
Samudravijaya K.	Speech Interfaces	SVNIT	Surat	15 Dec 2017
Samudravijaya K.	Speech coding and recognition	IIITM-K	Thiruvananthapuram	21 Feb 2018

SEMINARS/WORKSHOPS/CONFERENCES /SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
Prof. K Samudravijaya	School on Automatic Speech Recognition I	CLST	16-28 May 2017	National	50
Prof. K Samudravijaya	School on Automatic Speech Recognition II	CLST	19-23 Dec 2017	National	50
Prof. Rohit Sinha	13 th Winter School on Speech and Audio Processing	ISCA & Tata Power SED	19-22 Jan 2018	National	130

Name of Faculty (Con- vener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
Dr. Abhishek Shrivastava and Prof. K Samudravijaya	Workshop on Voice User Interface	CLST and Imprint	1-3 Mar 2018	National	45

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANIZATIONS/INVITED LECTURES

Name	Name of Inst./ Univ./Org.	Purpose/ Name of Lecture	Date
Hiroya Fujisaki	University of Tokyo	1. Processes of Information Manifestation by Speech (Linguistic, Paralinguistic and non-Linguistic), and the role of prosody 2. Applications of the (so-called) Fujisaki Model of Tone, Accent and Intonation to Phonetics, Phonology, and Speech Technology	22 Feb 2018
S. P. Arun	IISc Bangalore	If you can make computers chess, why can't we make them see	19.08.2017
Matthew Magimai Doss	IDIAP, Switzerland	On combining Linguistic Knowledge and Acoustic Data for Pronunciation Lexicon Development	27 Mar 2018
S. S. Agarwal	KIIT, Gurugram	Acoustic Study of Hindi Dialects and their Recognition by Machines and Humans	22.12.2017
L. Sobha	Anna University, Chennai	Text Analytics: Converting Unstructured Data into Structured Data	23.10.2017

FACULTY MEMBERS ASSOCIATED WITH THE CENTRE

Sl. No.	Name	Designation and Department
1	Bhattacharya, Samit	Associate Professor, Department of Computer Science and Engineering
2	Dandapat, S.	Professor, Department of Electronics and Electrical Engineering
3	Das, Pradip Kumar	Professor, Department of Computer Science and Engineering
4	Guha, Prithvijit	Assistant Professor, Department of Electronics and Electrical Engineering
5	Gupta, Navin	Assistant Professor, Department of Biosciences and Bioengineering
6	Hazarika, S. M.	Professor, Department of Mechanical Engineering
7	Kumar, Udaya	Associate Professor, Department of Design
8	Mahanta, Shakuntala	Associate Professor, Department of Biosciences and Bioengineering
9	Monga, Charu	Assitant Professor, Department of Design
10	Nandi, Sukumar (Head of the Centre)	Professor, Department of Computer Science and Engineering
11	Prasanna, S. R. Mahadeva	Professor, Department of Electronics and Electrical Engineering
12	Saikia, Arupjyoti	Professor, Department of Humanities and Social Sciences
13	Samudravijaya, K.	Visiting Professor, Centre for Linguistic Science and Technology
14	Sarmah, Priyankoo	Associate Professor, Department of Humanities and Social Sciences
15	Sharma, Sukanya	Associate Professor, Department of Humanities and Social Sciences
16	Shrivastava, Abhishek	Assitant Professor, Department of Design
17	Singh, Sanasam Ranbir	Associate Professor, Department of Computer Science and Engineering
18	Sinha, Rohit	Professor, Department of Electronics and Electrical Engineering
19	Som, Bidish	Associate Professor, Department of Humanities and Social Sciences
20	Sundaram, Suresh	Assistant Professor, Department of Electronics and Electrical Engineering

CENTRE FOR NANOTECHNOLOGY

The Centre at a Glance

Year of Establishment: 2004

Academic Programmes Offered:

Doctor of Philosophy (PhD)

Faculty Members Associated: 17

Total Student Strength: 42

PhD: 42

New Students Joined in 2017-2018: 7

PhD: 7

LABORATORY FACILITIES

The centre has a total of 15 numbers of laboratories, out of which two have been set up in the CIF. The basic instruments/equipment facilities available in each laboratory are listed below:

1. Material Res. Lab

- i. Laminar air flow - 01
- ii. Ultra-low temperature freezer (-80 °C) – 01
- iii. UV spectrophotometer – 02
- iv. Microwave oven – 01
- v. Agarose gel documentation system, Gel logic – 01
- vi. Regulated DC Power Supply – 01
- vii. Electromagnet- 01
- viii. Digital Gauss meter – 01
- ix. Digital Weighing balance- 01
- x. Inverted Microscope – 01
- xi. Nanovoltmeter- 01
- xii. Source Meter- 01
- xiii. Refrigerated Centrifuge – 01
- xiv. Magnetic stirrer – 01

2. XRD Lab

- i. Bruker D8 Advance X-Ray Diffractometer - 01
- ii. Ultrasonic Processor - 01
- iii. Ultrasonic Bath - 02
- iv. Bench Top Incubator cum orbital Shaker - 01
- v. Magnetic stirrer with hot plate digital - 04
- vi. Digital pH Meter - 01
- vii. Analytical Balance – 02

3. TEM Lab

- i. Transmission electron microscope Jeol – 01

4. Optoelectronic Device Fabrication Lab

This lab has been set up in the CIF and it deals with the fabrication of π -conjugated organic molecules (monomers, oligomers and polymers) for various applications like organic light emitting diodes, photovoltaic devices, thin film transistors, memory devices, biomedical devices and sensors.

5. Nanobiotech Lab

- i. BD FACS Calibur - 01
- ii. UV-Vis Spectrophotometer - 01
- iii. Fluorescence spectrophotometer - 01
- iv. FluoroLog - 01
- v. Water purification system Milli Q / Elix - 01
- vi. Dynamic Light Scattering (DLS), Malvern Zetasizer Nano - 01

- vii. Micro plate reader - 01
- viii. Real Time PCR (Applied Bio system) - 01
- ix. Vortex - 01
- x. Deep Freeze (-20 °C) - 01
- xi. Shaking Incubator - 01
- xii. Rocker - 01
- xiii. Refrigerator – 01

6. Cell culture Lab

- i. CO₂ incubator - 01
- ii. Epi fluorescence microscope (Nikon eclipse) - 01
- iii. Water bath - 01
- iv. Digital Weighing Balance - 01
- v. Horizontal Laminar hood – 01

7. Synthesis Lab

- i. Horizontal Laminar Air Flow Work Station - 01
- ii. Hot air oven - 01
- iii. Refrigerated Bath Circulator - 01
- iv. Portable autoclave - 02
- v. Digital Weighing Balance - 03
- vi. pH meter - 03
- vii. Microwave oven - 01
- viii. Cooling centrifuge (Sigma) - 02
- ix. Agarose gel electrophoresis set up - 01
- x. Rotary Vacuum - 01
- xi. UV Transilluminator - 01
- xii. Magnetic stirrer - 05
- xiii. Mini water bath - 01
- xiv. Dessicator - 03
- xv. Spin coater - 02
- xvi. Bacteriostatic incubator – 01

8. Nano Fabrication Lab

- i. Laboratory developed (assembled) Chemical Vapour Deposition (CVD) - 02
- ii. Thermal Evaporation coating system - 01
- iii. Electron Beam deposition system - 01
- iv. RF Co-Sputtering deposition system - 01
- v. Rapid Thermal Annealing system - 01
- vi. Spin coating system - 01
- vii. Bath and Tip Sonication - 02
- viii. Laboratory developed (assembled) Probe station for I-V and Photo conductivity measurements - 01
- ix. Heating woven - 01
- x. KBR pallet maker for FTIR measurement - 01
- xi. Gas Sensor System - 01

- xii. PVD Chamber
- xiii. Autoclave
- xiv. Dessicator - 03
- xv. Depth Coater - 01
- xvi. Ball Milling System

9. MEMS & NEMS Lab

- i. Analog Digital Scope (ADS) HM507, HAMEG Instruments, 50 MHz 100MS/s - 01
- ii. Digital Oscilloscope (Yokogawa) DL9040 5GS/s 500 MHz - 01
- iii. Function Generator (Agilent) 33120A 15MHz - 01
- iv. Universal Counter (Agilent) 53131A 225 MHz - 01
- v. Multifunction Generator (Caddo) 4080 20 MHz - 01
- vi. Triple Power Supply (Sciencetech) ST4071 5V/30V - 01
- vii. Multiple Power Supply (Sciencetech) ST4077 - 01
- viii. Dessicator - 02
- ix. Refrigerator - 01
- x. Signal generator (Agilent), 3GHz N9310A - 01
- xi. Hot plate - 01

10. SPM Lab

- i. Scanning Probe Microscope: Veeco (Model) - 01
- ii. Gas Chromatograph (Centurian Scientific) - 01

11. Thin Film and Micro Fluidics Lab

- i. High end upright microscope - 01
- ii. Thermal stage - 01
- iii. High speed camera - 01
- iv. UV-Ozone cleaning unit - 01
- v. Spin coater - 02
- vi. Fume chamber - 01
- vii. Clean bench - 01
- viii. Ultrasonic cleaning bath - 01
- ix. Millipore water supply unit - 01
- x. AC/DC power supply units - 03
- xi. Electromagnet with Gaussmeter - 01
- xii. Microbalance - 01
- xiii. High speed centrifuge - 01
- xiv. Air furnace - 01
- xv. High resolution camera - 01
- xvi. Vacuum furnace - 01
- xvii. High Speed computational servers loaded with software, which includes Ansys Fluent, Mathematica and Material Studio - 01

12. Lithography Fabrication Lab

- i. FESEM-Electron Beam Lithography - 01

- ii. Thermal and E-Beam Evaporator - 01
- iii. Laser Micro Machining - 01
- iv. DC probe Station - 01
- v. RF Sputtering - 01
- vi. Electro Spinning Device - 01
- vii. Mask writer - 01
- viii. Double Sided Mask Aligner - 01
- ix. Upright Optical microscope - 01
- x. AC/DC Probe Station
- xi. DC Probe Station - 01
- xii. IV CV Pulse parametric analyser - 01
- xiii. Impedance Analyser - 01
- xiv. Chemical Impedance Analyzer - 01
- xv. Oscilloscope - 01
- xvi. Function Generator - 01
- xvii. Digital multimeter - 01
- xviii. DC Power supplies - 01

13. Micro-Nano Characterization Lab

- i. AFM-TERS - 01
- ii. Raman spectroscopy
- iii. High End Confocal Microscope - 01
- iv. Material Printing System - 01
- v. Fume Hood - 01
- vi. UV-Visible Spectrophotometer - 01

14. Micro-Nanoelectronic Characterization Lab

- i. Oxidation Diffusion Furnace - 01
- ii. Wire Bonder - 01
- iii. Wet Bench - 01
- iv. DI water system - 01
- v. Weighing machine - 01
- vi. Ultra filtration unit - 01
- vii. UV Ozone - 01
- viii. Hot plate - 01
- ix. Sonicator - 01

15. Wet Lab

- i. Rotavapor - 01
- ii. Refrigerated High Speed Centrifuge - 01

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

Equipment

1. Fan Filter Unit (FFU) Module, Make: AAF India Pvt. Ltd., Model: FMII
2. Sonicator (Ultrasonic bath) Make: LMUC-2, Model: LABMAN

3. Electrochemical Spectroscopy system, Make: Gamry Instrument, USA, Model: Gamry Reference600+Potentiostat/Galvanostat/ZRA(V7),992-00122
4. High temperature sintering furnace
5. NREL based calibrated Reference cell
6. Syringe pump, Make: New Era pump system Inc, USA
7. Sonicator (Ultrasonic Bath) Make: Citizen Model: CUB-2.5
8. UV Transilluminator

Facilities

1. 10 KVA True Online double Conversion UPS
2. Digital High Voltage Power Supply
3. 808 nm Diode Laser with adjustable power supply & display unit,
4. Xenon Lamp, 450W Ozone free for Fluorolog-3
5. Optoencoder for Zent3, Zent3S, Zent5 control system for Sigma Centrifuge

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

The centre is pursuing research in the multi-disciplinary area of Nanotechnology required to meet the future challenges and to augment academic partnerships with industry. One DST and one DAE BRNS major research project is sanctioned at the centre during this financial year 2017-2018. Another major research project of Rs. 57.75 Crore sanctioned from DeitY is implementing at the Centre with experts from multi-disciplinary areas of science and engineering for establishing a 'Centre for Excellence in Research and Development of Nanoelectronic Theranostic Devices'. Nano-Electronics group focuses on Micro-Nano fabrication, Optical and Electronic Characterization of Micro-Nano Devices, development of SAW sensors, ECG amplifier and blind assisted walker. Nanoscale science and technology group have recently developed a 'Portable Device for LED based Photodynamic Therapy and Colorimetric Assay', 'Wirelessly Operated LED Device for Photodynamic Therapy and Subsequent Monitoring of Therapeutic Success' and "Bimetallic Sand-Fe-Cu-Nano-composite based microorganism and metal exterminator system'. Nanobiotechnology group is pursuing interdisciplinary collaborative research at the Centre for Nanotechnology on "nanoparticles and nanocomposites". They are developing new nanoclusters for the potential applications as sensors, antimicrobial and anticancer agents. Nanophysics group is working on the various aspects on the defects of carbon nanotube and their possible application as sensor. Micro and Nano Fluidics group have recently developed device for 'Point-of-Care Hand Tremor Detection System', 'Lung Condition Monitoring', 'Microfluidic Electrolyzer for the Continuous Production and Separation of Hydrogen/Oxygen', 'Transmittance Based OptoElectroChemical Device for Detecting Biomarkers on Paper Surface Targeting Low-cost Point-of-Care Diagnostic Tools', 'Microfluidic Electrical Energy Harvester', 'Integrated MEMS-Microfluidic CO₂-sequestration Device to Produce Essential Organic Products Emulating Photosynthesis' and 'MEMS-POCT Device for Quantitative Estimation of the Biomarker α -Amylase in

Human Blood Serum'. A research group working on Organic light emitting diode (OLEDs), Conjugated oligomer and polymer synthesis, Organic Field Effect Transistors (OFETs), Organic Solar Cells (OSCs) have prepared a 'Method for the Fabrication of Ultralow Voltage Operated, Reduced Bias Stress, Multi-layer Dielectric System Comprising n-Type Organic Field Effect Transistors', 'Fabrication of Solution Process, Ultra-low Operating Voltage, Stable Organic Field Effect Transistor' and 'Ultra-low Voltage Operated Organic Field Effect Transistor (OFET) based Bio-sensing System and a Method for Fabricating the Same'. A group of faculty members are working on Organic light emitting diode (OLEDs), Conjugated oligomer and polymer synthesis, Organic Field Effect Transistors (OFETs), Organic Solar Cells (OSCs), Memory devices, Theranostic devices, Sensors. and Nanotube based transistors. In addition Centre is also involved in fostering growth of science and education in the north east in the field of nanotechnology by conference, workshops, symposium and seminars.

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

- Design and Development of a Portable Device for LED based Photodynamic Therapy and Colorimetric Assay.
- Design and Development of a Wirelessly Operated LED Device for Photodynamic Therapy and Subsequent Monitoring of Therapeutic Success.
- Design and Development of a Transmittance Based OptoElectroChemical Device for Detecting Biomarkers on Paper Surface Targeting Low-cost Point-of-Care Diagnostic Tools.
- Design Development of a Microfluidic Electrolyzer for the Continuous Production and Separation of Hydrogen/Oxygen.
- Design and Development of a Point-of-Care Hand Tremor Detection System.
- Design and Development of a Lung Condition Monitoring Device.
- Design and Development of a Microfluidic Electrical Energy Harvester.
- Design and Development of a Method for the Fabrication of Ultralow Voltage Operated, Reduced Bias Stress, Multi-layer Dielectric System Comprising n-Type Organic Field Effect Transistors.
- Design and Development of a Method for the Fabrication of Solution Process, Ultra-low Operating Voltage, Stable Organic Field Effect Transistor.
- Design and Development of an Ultra-low Voltage Operated Organic Field Effect Transistor (OFET) based Bio-sensing System and a Method for Fabricating the Same.
- Design and Development of an Integrated MEMS-Microfluidic CO₂-sequestration Device to Produce Essential Organic Products Emulating Photosynthesis.

- Design and Development of a MEMS-POCT Device for Quantitative Estimation of the Biomarker α -Amylase in Human Blood Serum.
- Design and Development of an Acoustic Diagnostic Point-of-Care Testing Device for Blood Urea Detection.
- Design and Development of a Point-of-Care System for Detection of the Physical Stress at Different Parts of Body.
- Design and Development of a Mobile RF Radiation Detection Device

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Ashok Kumar Dasmahapatra	ASP-2017	IIT Guwahati	8-11 Jan 2018	International
Ashok Kumar Dasmahapatra	COMPFLU – 2017	IIT Madras	18-20 Dec 2018	National
Dr. Gayatri Natu	HyPe-2017: A Discussion Meeting on Hybrid Perovskites	S. N. Bose National Centre for Basic Sciences, Kolkata	14-15 Dec 2017	International
P. K. Giri	The International Conference on Electron Microscopy and Allied Techniques (EMSI-2017)	Chennai	17-19 Jul 2018	International
P. K. Giri	9th International Conference on Materials for Advanced Technologies (ICMAT 2017)	Singapore	18-23 Jun 2017	International
Ashish Singh, Anamika Dey, Parameswar K. Iyer	ICANN	IIT Guwahati	18-21 Dec 2017	International
Dipjyoti Das, Parameswar K. Iyer	Symposium B: International Conference on Materials and Advanced Technologies	Suntec city, Singapore	18-23 Jun 2017	International
Dipjyoti Das, Parameswar K. Iyer	Symposium Y: International Conference on Materials and Advanced Technologies	Suntec city, Singapore	18-23 Jun 2017	International
P. Gopikrishna, Parameswar K. Iyer	International Conference on Sophisticated Instruments in Modern Research	IIT Guwahati	30 Jun-1 Jul 2017	International
P. Gopikrishna, Parameswar K. Iyer	Young Scientists Colloquium held at IEST.	IEST Shibpur	11 Oct 2017	National
P. Gopikrishna, Parameswar K. Iyer	5 th International Conference on Advanced Nanomaterials and Nanotechnology (ICANN-2017)	IIT Guwahati	18-21 Dec 2017	International
Ritesh Kant Gupta, Parameswar K. Iyer	5 th International Conference on Advanced Nanomaterials and Nanotechnology (ICANN-2017)	IIT Guwahati	18-21 Dec 2017	International
Indrani Medhi, Parameswar K. Iyer	5 th International Conference on Advanced Nanomaterials and Nanotechnology (ICANN-2017)	IIT Guwahati	18-21 Dec 2017	International
Indrani Medhi, Parameswar K. Iyer	Research Conclave-2018	IIT Guwahati	8-11 Mar 2018	National
Ramesh Babu Y, Parameswar K. Iyer	5 th International Conference on Advanced Nanomaterials and Nanotechnology (ICANN-2017)	IIT Guwahati	18-21 Dec 2017	International

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Ramesh Babu Y., Parameswar K. Iyer	Research Conclave-2018	IIT Guwahati	8-11 Mar 2018	National
Ramesh Babu Y., Parameswar K. Iyer	Advances in Spectroscopic Techniques and Materials(ASTM-2018)	IIT(ISM) Dhanbad	14-16 Mar 2018	National
Ramesh Babu Y., Parameswar K. Iyer	LaTeX workshop Conducted by IEEE Forum	IIT Guwahati	31 Mar 2018	National

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Prof. S. S. Ghosh	Emergence of Cancer Nanotheranostics	IIT(BHU)	Varanasi	18-20 Jan 2018
Prof. S. S. Ghosh	Nanotheranostics: A new paradigm for targeted therapy and device	IASST	Guwahati	21 Nov 2017
Prof. S. S. Ghosh	Cancer theranostics	NSIT	Delhi	9 Sep 2017
Dr. D. Bandyopadhyay	Microfluidics for Sensing, Reaction Engineering, Energy Harvesting, and Point-of-Care Testing	IIT Roorkee	Roorkee	Jan 2018
Dr. D. Bandyopadhyay	Microfluidics for Sensing, Reaction Engineering, Energy Harvesting, and Point-of-Care Testing	IIT Madras	Chennai	In 2017
Dr. D. Bandyopadhyay	Gateways to Research	IICHe-GRC	IIT Guwahati	Aug 2017
Dr. D. Bandyopadhyay	Self-Organizing Thin Films & Droplets of Functional Polymers - Liquid Crystals	9 th Indo-German Frontiers of Engineering Symposium	Jaipur	9-12 Mar 2017
Prof. P. K. Giri	Plasmonic Ag/Au/Pt Nanoparticle Decorated Mesoporous Si Nanowires and MoS ₂ @TiO ₂ (B) Nanobelts Heterostructures for Photovoltaic and Photocatalytic Applications	9 th International Conference on Materials for Advanced Technologies (ICMAT 2017)	Singapore	18-23 Jun 2017
Prof. P. K. Giri	Mesoporous Si Nanowire Templated Growth of Organo-Metal Halide Perovskite Nanoparticles and Its Photoluminescence Enhancement	The International Conference on Electron Microscopy and Allied Techniques (EMSI-2017)	Mahabalipuram	17-19 Jul 2017

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./ Con.	Funded By	Date	International/ National	No. of participants
Chairman- Prof. Harshal B.Nemade Conveners- Dr. D.Pamu, Dr. Nageswara Rao Peela, Dr. Akshai Kumar A. S.	4 th National Workshop on NEMS/MEMS and Theranostic Devices	MeitY, Government of India	26-28 Feb 2018	National	200

PATENTS

No. of Patents Applied with details 15

No. of Patents Granted with details 01

Name of Faculty and co researcher	Name	Date Applied/ Granted	Application No.
Anamika Dey, Ashish Singh, Parameswar K. Iyer	Method for the Fabrication of Ultralow Voltage Operated, Reduced Bias Stress, Multi-layer Di-electric System Comprising n-Type Organic Field Effect Transistors	27 Dec 2017	Ref. No. 201731046914, App. No. TEMP/E-1/47853/2017-KOL
Anamika Dey, Ashish Singh, Parameswar K. Iyer	Method for the Fabrication of Solution Process, Ultra-low Operating Voltage, Stable Organic Field Effect Transistor	27 Dec 2017	Ref. No. 201731046915, App. No. TEMP/E-1/47841/2017-KOL
Anamika Dey, Ashish Singh, Deepanjalee Dutta, Siddhartha Sankar Ghosh, Parameswar K. Iyer	An Ultra-low Voltage Operated Organic Field Effect Transistor (OFET) based Bio-sensing System and A Method for Fabricating the Same	4 Jan 2018	Ref. No. 201831000478, App. No. TEMP/E-1/462/2018-KOL
Arun Chattopadhyay, Sunil Kumar Sailapu, Deepanjalee Dutta, Siddhartha Sankar Ghosh, Anitha T Simon	A portable device for LED based photodynamic therapy and colorimetric assay	2017	Application No.201731031603
A. Chattopadhyay, S. K. Sailapu, D. Dutta, S. S. Ghosh, A. T. Simon	Wirelessly Operated LED Device for Photodynamic Therapy And Subsequent Monitoring Of Therapeutic Success	2017	Application No: 201731031603
Dipankar Bandyopadhyay, Tapas Kumar Mandal, Saptak Rarotra	A Microfluidic Electrolyzer for the Continuous Production and Separation of Hydrogen/Oxygen	Date of filing: 6 Jan 2017 Date of publishing: 2 Oct 2017	PCT/IN2017/050022 International Patents, Publication number WO/2017/175237
Dipankar Bandyopadhyay, Nilanjan Mandal, Satarupa Dutta	A Transmittance Based OptoElectroChemical Device for Detecting Biomarkers on Paper Surface Targeting Low-cost Point-of-Care Diagnostic Tools	Date of filing: 16 Jan 2017	PCT/IN2017/050023
Mitradip Bhattacharjee, Dipankar Bandyopadhyay, Sunny Kumar	A Point-of-Care Hand Tremor Detection System	Date of filing: 29 Aug 2017	PCT/IN2017/050366
Mitradip Bhattacharjee, Dipankar Bandyopadhyay, Harshal Nemade	A Lung Condition Monitoring Device	Date of filing: 29 Aug 2017	PCT/IN2017/050363,
Mitradip Bhattacharjee, Seim Timung Dipankar Bandyopadhyay, Tapas Kumar Mandal	A Microfluidic Electrical Energy Harvester	Date of filing: 29 Aug 2017	PCT/IN2017/050364
Mitradip Bhattacharjee, Dipankar Bandyopadhyay, Sunny Kumar	A Point-of-Care Hand Tremor Detection Device	Date of Filing: 26 May 2017	TEMP/E-1/18774/2017-KOL, Patent Appl. No. 201731018530

Saptak Rarotra, Dipankar Bandyopadhyay, Tapas Kumar Mandal	Integrated MEMS-Microfluidic CO ₂ -sequestration Device to Produce Essential Organic Products Emulating Photosynthesis	Date of Filing: 18 Aug 2017	TEMP/E-1/29803/2017-KOL, Patent Appl. No. 201731029391
Nilanjan Mandal, Dipankar Bandyopadhyay	A MEMS-POCT Device for Quantitative Estimation of the Biomarker α -Amylase in Human Blood Serum	Date of Filing: 11 Sep 2017	E-12/187/2017/KOL, Patent Appl. No. 201731032122
Mitradip Bhattacharjee, Siddharth Thakur, Dipankar Bandyopadhyay	Acoustic Diagnostic Point-of-Care Testing Device for Blood Urea Detection	Date of Filing: 20 Oct 2017	TEMP/E-1/37965/2017-KOL, Patent Appl. No. 201731037223
Mitradip Bhattacharjee, Sagnik Middya, Dipankar Bandyopadhyay	A Point-of-Care System for Detection of the Physiological Stress at Different Parts of Body	Date of Filing: 20 Oct 2017	TEMP/E-1/37937/2017-KOL, Patent Appl. No. 201731037222
Mitradip Bhattacharjee, Dipankar Bandyopadhyay	A Mobile RF Radiation Detection Device	Date of Filing: 20 Oct 2017	TEMP/E-1/37920/2017-KOL, Patent Appl. No. 201731037221

AWARDS AND HONOURS

Prof. P. K. Giri is awarded Visiting Research Fellowship, 2018, University of Birmingham, UK.

STUDENTS' ACHIEVEMENTS

- Larionette P L Mawlong, received the best poster award at International conference on Advanced Nanomaterials and Nanotechnology (ICANN2017), Dec 2017, for her paper "Photoluminescence Study of CVD Grown Monolayer MoS₂ Film on TiO₂ Nanorods Array Template"
- Neha Arora, Student Travel Award for Poster presentation, 5th Nano Today Conference, PEGylated Silver Nanoclusters Mediated Cytosolic Delivery of Tumor Suppressor Protein PTEN to Modulate in vitro Cellular Signalling, 6th December 2017.
- Neha Arora, ACS Poster presentation Award, ICANN IIT Guwahati, Understanding Therapeutic Potential of PEGylated Silver Nanoclusters Loaded Recombinant PTEN, 19th December 2017
- Deepanjalee Dutta, Indian Society of Nano medicine-BC best poster award, NanoBiotech'17 Trivandrum, Bimetallic Au-Ag Nanoclusters embedded Cationic BSA nanocarrier for Bioimaging and Suicide gene therapy of HeLa cancer cells, 8th December 2017
- Deepanjalee Dutta, RSC Poster Award for poster presentation, ICANN IIT Guwahati, Bimetallic Au-Ag nanoclusters embedded nanocarrier for bioimaging and suicide gene therapy of HeLa cancer cells, 19th December 2017
- Deepanjalee Dutta, Best Research Proposal (2ND Position), Smartphone based portable device for photodynamic therapy and colorimetric assays, North East Biostart 2018, Guwahati Biotech Park, 5th April 2018.
- Anushree Dutta received "Best Poster Award" in "YSC-2017" organised by MRSI, Kolkata Chapter.
- Nanoparticle based lung monitoring device, Mitradip Bhattacharjee, Harshal Nemade and Dipankar Bandyopadhyay, REFLUX-2017, IIT Guwahati, 2017. (Best Paper Award)
- Microfluidic vapour sensor and energy harvester, Mitradip Bhattacharjee, Viswanath Pasumarthi, Joydip Chaudhuri, Amit Kumar Singh, Harshal Nemade and Dipankar Bandyopadhyay, Research Conclave- 2017, IIT Guwahati, 2017. (Best Poster Award)
- Ashish Singh received International Travel Award, 2017, Department of Science and Technology, India.
- Anamika Dey received IITG – CSIR-Direct SRF Award, 2017, Council of Scientific and Industrial Research, India.

SPECIAL MENTION

Dr. Gayatri Natu, a DST-Inspire Faculty Fellow at the Centre for Nanotechnology, was a member of the integrated board responsible for paper setting and grading of the Indian National Chemistry Olympiad (INChO-2018) examination that was held on January 27, 2018.

FACULTY MEMBERS ASSOCIATED WITH THE CENTRE

Sl. No.	Name	Designation and Department
1	Bandyopadhyay, Dipankar	Assistant Professor, Department of Chemical Engineering
2	Bose, Biplab	Assistant Professor, Department of Biotechnology
3	Chattopadhyay, Arun	Professor, Department of Chemistry
4	Dasmahapatra, Ashok Kumar	Associate Professor, Dept. of Chemical Engineering
5	Ghosh, Siddhartha Sankar	Professor, Department of Biosciences and Bioengineering
6	Giri, Pravat Kumar	Professor, Department of Physics
7	Iyer, Parameswar Krishnan	Professor, Department of Chemistry
8	Mandal, Tapas K	Assistant Professor, Department of Chemical Engineering
9	Nemade, Harshal B.	Associate Professor, Department of Electronics and Electrical Engineering
10	Palathinkal, Roy Paily (Head of the Centre)	Professor, Department of Electronics and Electrical Engineering
11	Pattader, Partho Sarathi Gooh	Assistant Professor, Department of Chemical Engineering
12	Pamu, D.	Associate Professor, Department of Physics
13	Paul, Anumita	Associate Professor, Department of Chemistry
14	Peela, Nageswara Rao	Assistant Professor, Department of Chemical
15	S. Akshai Kumar A.	Assistant Professor, Department of Chemistry
16	Sahoo, Lingaraj	Professor, Department of Biosciences and Bioengineering
17	Natu, Gayatri	DST-Inspire Faculty Fellow

CENTRE FOR RURAL TECHNOLOGY

The Centre at a Glance
Year of Establishment: 2016
Master of Technology (MTech) Doctor of Philosophy (PhD)
Total Faculty Strength: 3 <ul style="list-style-type: none"> • Associate Professor: 1 • Assistant Professor: 2 Faculty Members Associated: 13
Total Student Strength: 34 MTech: 18 PhD: 16
New Students Joined in 2017-2018: 16 MTech: 9 PhD: 7

LABORATORY FACILITIES

Lab1: Common facility for mechanical workshop and chemical laboratory

Lab2: Bioprocessing laboratory

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

- Try Dryer
- BOD Incubator
- Digital Analytical Balance
- Muffle Furnace
- COD Reactor Dual Block
- Biomass Cook Stove
- Motorized Wood Cutter
- Mini Briquette Making Machine
- Single beam scanning visible spectrophotometer
- Hot Air Drying Oven
- Microprocessor based pH Meter
- Autoclave
- Magnetic Stirrer
- Microprocessor based Conductivity TDS meter
- Hot Plate
- Digital Nephelo Turbidity meter
- IR thermometer

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

- Technology and Development
- Public Policy and Governance
- Transportation
- Rural Water Supply and Sanitation
- Rural communication
- Energy and Environment Assessment
- Climate Change and Development
- Natural Resources Management and Livelihood
- Water Resources
- Agro-Food Processing

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

- RuTAG-NE, a project initiated and sponsored by office of the Principal Scientific Advisor to the GOI became a key partner in Science & Technology Interventions in the North East Region (STINER) initiative of Ministry of DoNER. Currently RuTAG NE is facilitating fabrication and dissemination of some indigenously developed technologies viz., feed block machine, mechanized potter wheel, hank to bobbin machine, biomass dryer, chaff cutter and eri cocon opener under STINER project to over hundred locations in all over NER.
- Areca nut husk has been identified as a bio-resource for sanitary napkin. Looking at the availability of areca nut husk in abundance in North East, it is expected to provide economical boost in the region.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: INTERNATIONAL/NATIONAL

Name of Faculty	Name of Conf./Workshop	Place	Date	International/National
L. Rangan	National conference on Role of Women in Science and Technology	New Delhi	8-9 Mar 2018	National
L. Rangan	87 Annual Session of NASI and Symposium on Basic Research-Its Role in National Development	Pune	8-10 Dec 2017	National
L. Rangan	Sensitization workshop on "Technological Empowerment of Women"	IIT Guwahati	3-4 Nov 2017	National
RuTAG-NE Team	Prime Minister visit	Mizoram	16 Dec 2107	National
Siddhartha Singha	Indo-Japan Bilateral symposium on future perspective of Bio-resource Utilization	IIT Guwahati	1-4 Feb 2018	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
S. Mitra	Surface Water in North East India & Problems in Hands: Would Climate Change Exacerbate it?	NEERI	Kolkata	28-29 Nov 2017
S. Mitra	Testing soil-technologies in farmers' fields—lessons learnt from different agro-ecological zones of India	Bidhan Chandra Krishi Biswavidyalaya	Kalyani, West Bengal	9-10 Jun 2017

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Prof. S. K. Kakoty	Development of rural traditional technology	Assam Engineering College	Guwahati	25 Jan 2018

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Aloy Bora	ICCO	Discussion about collaborative project.	20 May 2017
Jayanta Kr. Sharma	Aranyak NGO	Indigenous Knowledge System base practices and glimpses of traditional technology- Some observations from NER, India	15 Nov 2017
Kewal Kumar Sharma	Dept. of Higher Education of Union HRD Ministry	To look into suitable technologies for implementing in Arunachal Pradesh developed by RuTAG-NE	9 Dec 2017
Dr. Bhagat Lal Dutta & Manash Bhuyan	Biozatra Pvt. Ltd.	Student interaction and collaborative R&D activity	4 Jan 2018
Dr RP Yadav, Head and Principal Scientist	ICAR-National Bureau of Soil Survey and Land Use Planning, New Delhi	Land resource inventory of Northern India for Land use planning	20 Mar 2018
Mr. Gunajit Brahma	Jeev Anksh Eco Products Pvt. Ltd.	Student interaction and collaborative R&D activity	22 Mar 2018

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
Dr. Latha Rangan (Organizing Secretary)	Sensitization Workshop on "Technological Empowerment of Women"	NASI Allahabad	3-4 Nov 2017	National	120
Prof. S. K. Kakoty (Coordinator)	High level meeting cum workshop with DoNER Secretary in presence of O/o PSA to GOI	Ministry of DoNER	10 Jul 2017	National	70
Prof. S. K. Kakoty (Coordinator)	Workshop cum training on RuTAG-NE technologies	NEHHDC	17-18 Jul 2017	National	100
Prof. S.K. Kakoty (Convener)	Celebrated 'National Handloom Day' promoting the weaving sectors of north east through S&T interventions	Directorate of field publicity, Ministry of Information and Broadcasting, Government of India	7 Aug 2017	National	100
Prof. S.K. Kakoty (Convener)	NGO meet in search of S&T intervention at rural areas.	RuTAG-NE	15 Oct 2017	National	60
Prof. S.K. Kakoty (Convener)	Workshop cum demonstration of pottery dying chamber, a new technology developed by RuTAG-NE	RuTAG-NE	9 Nov 2017	National	20

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
Prof. S. K. Kakoty, Dr. S. Singha	Demonstration cum training of dryer developed by RuTAG-NE	GIZ Nagaland	28-29 Nov 2017	National	20
Prof. S.K. Kakoty (Coordinator)	NGO meet in search of S&T intervention at rural areas.	RuTAG-NE	28 Jan 2018	National	50
Dr. Sudip Mitra (Co-ordinator)	Stakeholders' Consultation Workshop for Sustainable Agriculture in North-Eastern region, Centre for Rural Technology (CRT), IIT Guwahati in association with National Council for Science Museums (NCSM) and TIFAC, DST	TIFAC, DST	17 Feb 2018	National	120
Dr. Sudip Mitra (Co-ordinator)	Technology Vision 2035 Dissemination workshop, Centre for Rural Technology (CRT), IIT Guwahati in association with National Council for Science Museums (NCSM) and TIFAC, DST	TIFAC, DST	17 Feb 2018	National	120

AWARDS AND HONOURS

Latha Rangan, FNASc; Elected Fellow National Academy of Sciences Allahabad 2017

STUDENTS' ACHIEVEMENTS

- Anjali Narzary, Das A. K., 2018, Biomass Briquetting using Grass & Sawdust with taro (*Colocasia esculenta*) tuber as binder. Research Conclave, 11th March 2018, Indian Institute of Technology Guwahati (Best Student Poster Presentation).
- Srimonti Dutta, Manoj Sharma and Suranjit Basumatary secured a position in the winners list in the event "Ideathon 2017" organized jointly by the Assam government and UNDP for providing a solution to the market linkage problem prevailing in the Assam handloom sector.

- Students' Achievements: Rama. A. Shirwalkar, 2018, A practical proposal for utilization of degraded municipal solid waste: Recycling in fired bricks. Research Conclave, 11th March 2018, Indian Institute of Technology Guwahati (Best Student Poster Presentation)

- Students' Achievements: Rama. A. Shirwalkar, Prakash. Singh, Vinny. Kohli, Studying properties of bricks by partial substitution of soil with powdered rice straw. Recycle 2018 (Best Student Poster Presentation)

SPECIAL MENTION

CRT signed MoU with an International "not-for-profit" development organization Innovative Change Collaborative (ICCo) for development and dissemination of various technologies.

CORE FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1.	Khwairkpm, Meena	Indian Institute of Technology Roorkee	Assistant Professor	Solid Waste Management. Environmental Engineering
2.	Mitra, Sudip	Indian Agricultural Research Institute (IARI), New Delhi	Associate Professor	Environmental Pollution, Climate change: Vulnerability and Adaptation; Carbon sequestration, Greenhouse gases management
3.	Singha, Siddhartha	Indian Institute of Technology Madras	Assistant Professor	Food Process Technologies, Process biotechnology, Scale up and commercialization strategies in food-and bio-processing

FACULTY MEMBERS ASSOCIATED WITH THE CENTRE

Sl. No.	Name	Designation and Department
1.	Chaturvedi, Rakhi	Professor, Biosciences and Bioengineering
2.	Das, Amerendra K.	Professor, Department of Design
3.	Dutta, Mrinal K.	Professor, Humanities and Social Sciences
4.	Jawed, Mohammad	Professor, Civil Engineering
5.	Kalita, Karuna	Associate Professor, Mechanical Engineering
6.	Kalita, Pankaj	Assistant Professor, Centre for Energy
7.	Kakoty, Sashindra K. (Head of the Centre)	Professor, Mechanical Engineering
8.	Kalamdhad, Ajay	Member Secretary CFRT Associate Professor, Civil Engineering
9.	Monga, Charu	Assistant Professor, Department of Design
10.	Patra, Sanjukta	Associate Professor, Biosciences and Bioengineering
11.	Rangan, Latha	Professor, Biosciences and Bioengineering
12.	Sarma, Arup	Professor, Civil Engineering
13.	Uppaluri, Ramagopal	Professor, Department of Chemical Engineering

LAKSHMINATH BEZBAROA CENTRAL LIBRARY

Lakshminath Bezbaroa Central Library being a major service centre of the Institute provides library and information services to support teaching, learning, research activities by creating state-of-the-art facilities and offering innovative services. The library is a window to world of latest information in sciences, engineering, technology, humanities & social sciences. The library has a fast growing collection of books, journals, magazines both in print and digital format. It is housed on a four stored building having a floor area of about 7500 sq. meter and can accommodate around 379 readers at a time. In-house services of the library are fully computerized and entire premise is provided with wi-fi facility for connecting to internet and accessing Institute's electronic resources.

During the reported period about 500 visitors from other academic Institutions have availed reference and reading facility of the Library. Library remains open from 8.00 am to 02.00 am (next day) throughout the year and 24 hours during mid/end semester examination, to provide reading facility to Institute's academic community.

1. Collection Development:

- The library has a fast growing collection of books,
- The growth of the collections since 2011-12 stand as follow:

journals, magazines both in print and digital format. A large number of books, database, international and national journals on various subjects have been added during the Financial Year 2017-18. The total collection strength of the Library now stands as follows:

ITEMS	Collection Size (2017-18)
Printed Books and bound volume journals (including NBHM collection)	1,69,409
E- books	1,80,559
Back file electronic journals (including NBHM collection)	2,066
Ph.D. Theses	819
Printed Standards	524
Non-Book material (CD, DVD, etc.)	6,401
Current Print Journal Subscription	68
Total Online Journals (including back-files and current journals subscribed and access provided by Consortia)	25,143

Sl. No.	F.Y.	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
(i)	Printed Books and Bound Volume Journals	1,34,687	1,40,434	1,48,181	1,54,564	1,57,955	1,64,701	1,69,409
(ii)	Theses collection (Ph.D., MTP, BTP)	1,048	1,119	1,169	1,343	1,471	1565	1,666
(iii)	Printed Journals	578	591	151	120	90	84	68
(iv)	Online Journals (including journals subscribed and access provided by Consortia)	9,795	12,630	12,656	12,835	24,012	24,264	25,143*

* includes backfiles

- d) As scientific research activities are profoundly dependent on the journal publications, Library has emphasized on enhancing subscription of current journals and expanded the collection significantly over last few years. Further, for better accessibility of contents, efforts have been made to increase online journal collection over printed journals. Presently Library is subscribing 15,848 titles across all academic areas of which 15,780 are online journals. In addition to that, Institute is having access to 7,212 online journals through 'e-Shodh Sindhu Consortium' and 'DeLCON: DBT- Electronic Library Consortium'.
- d. Apart from the above, Library has procured some of the world's most renowned abstract/full-text database like Scopus, INSPEC, EBSCO Discovery Service, IEC Standards, ACSESS archive, IMF eLibrary, eHRAF and some well-known national database i.e. CMIE Prowees, BIS Standards, EPWRF Time Series, etc during the reporting period.
- e. Library has also subscribed Turnitin, a Plagiarism-detection Software, during the reporting period.
- f. To make awareness about the regional culture and to generate interest about vernacular literature, Library has developed a reasonably good collection on Assamese language and on literary works of Sahityarthi Lakshminath Bezbaroa.

2. Budget:

The books and research journal budget of Lakshminath Bezbaroa Central Library has also increased over the last 7 financial years, details of which as follows:

Financial Year	Books Budget (Rs. In Lakhs)	Research Journal Budget (Rs. In Lakhs)
2011-12	275.00	301.90
2012-13	125.00	350.00
2013-14	150.00	573.00
2014 -15	200.00	690.00
2015-16	125.00	750.00
2016-17	80.00	771.00
2017-18	150.00	883.89

3. Services and Facilities:

- a) To facilitate the users, a digital repository of theses, submitted by Ph. D. scholars of the Institute, has been created and made accessible to the academic community. By the end of the reporting period, total 819 full-text these has been uploaded in the stated repository.
- b) To provide sufficient reading facility, Central Library has added 15 more seating capacity during the reporting

period. With this, total seating capacity now stands 379.

- c) To extend better searching of huge electronic resources of the Library, a world renowned Discovery Service has been made available to academic community of the Institute.
- d) The circulation system is being upgraded with RFID based technology for faster transactions.
- e) For safe keeping of personal belongings of library users, token based property counter has been made available throughout the library operation hours.

4. Infrastructural Development:

- a) For enabling better delivery of circulation facility, the library management software has been upgraded to web-based version. This helped to provide better browsing of library collection, instant email and SMS generation for individual library transactions.
- b) A RFID based Book Drop system has been installed for helping the users to do self check-in of library books beyond the library transaction period.
- c) A large format display monitor has been installed for intimating the users about recent developments and facilities of library.
- d) Interior of entire Library building has been renovated with modern illumination system for creating appropriate ambiance for readers

Library Advisory Committee:

Following are the members of Library Advisory Committee:

Prof. G. Sajith, Computer Science and Engineering	Chairman
Dr. Rajkumar P. Thummer, Biosciences and Bioengineering	Member (Department Nominee)
Dr. Raghvendra Gupta, Chemical Engineering	Member (Department Nominee)
Prof. Sandip Paul, Chemistry	Member (Department Nominee)
Dr. Arunasis Chakraborty, Civil Engineering	Member (Department Nominee)
Dr. Ashish Anand, Computer Science and Engineering	Member (Department Nominee)
Mr. Supradip Das, Design	Member (Department Nominee)

Dr. A. Rajesh, Electronics and Electrical Engineering	Member (Department Nominee)
Dr. Sukanya Sharma, Humanities and Social Science	Member (Department Nominee)
Dr. Anjan K. Chakrabarty, Mathematics	Member (Department Nominee)
Prof. K. S. R. Krishna Murthy, Mechanical Engineering	Member (Department Nominee)
Dr. Udit Raha, Physics	Member (Department Nominee)

Prof. Niranjana Sahoo, Energy	Member (Centre Nominee)
Dr. Lalit Mohan Pandey, Environment	Member (Centre Nominee)
Dr. Shakuntala Mahanta, Linguistic Science and Technology	Member (Centre Nominee)
Dr. Partho Sarothi Gooh Pattader, Nanotechnology	Member (Centre Nominee)
Dr. Sudip Mitra, Rural Technology	Member (Centre Nominee)
Prof. Rajen Kumar Sinha, Mathematics	Member (Senate Nominee)
Prof. Sreedeeep S., Civil Engineering	Member (Senate Nominee)
Dr. Tamal Kumar Guha, Librarian	Member Secretary (Ex-officio)

CENTRE FOR EDUCATIONAL TECHNOLOGY

YEAR OF ESTABLISHMENT OF THE CENTRE: 2004

ACADEMIC PROGRAMMES OFFERED

Sl. No.	Academic Programme Offered	Scheme
1	Interdisciplinary/Industry oriented/Research oriented academic courses jointly developed by an international faculty of repute and an IITG faculty	GIAN
2	UG/PG/Research oriented academic courses covering almost all the science / Engineering discipline offered by IITG faculties	CSS-MOOCs
3	Masters & PhD (All Science & Engineering Departments), Short Term courses for Science & Engineering	QIP
4	Short term courses; Training Programs for selected Technical Institutes under TEQIP III, MITACS - Canadian Student Exchange Program	KIT, TEQIP III
5	Teachers Training Camp	CESME under PMMMNMTT and IITG MoU with RMSA, Assam

LABORATORY FACILITIES

- State-of-the-art E-class room: Provides all facilities to conduct online lectures and connects across the Nation. Provides facilities for IITG Faculty to conduct Lectures in other IITs & institutions from IITG campus.
- Video Studios (1,2 & 3): Recording of various educational content is done in these studios. These studios are equipped with devices of latest technology such as, HD cameras, interactive display, Graphics tablet, Switcher, Recorder etc.
- Editing Laboratory: Edits all kind of educational content created at IITG, using Apple Mac Pro system.
- MOOCs Laboratory (1 & 2): Uploads & maintains MOOCs Content on Servers for National & International web cast via NPTEL HQ at IITM.
- State-of-the-art Video Conferencing Room: The newly constructed Video Conferencing room contains 9+1 node VC system, 5.1 Digital Dolby system & NKN backbone. It enables us to have conference with all IITs and IISc simultaneously.
- Science Laboratory under Centre of Excellence in Science and Mathematics Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)
- 3D Virtual Content Creation Lab: Conducts Research on creation of next generation 3D Virtual reality educational content using a Virtual Reality System with Headgear mount.
- E Kalpa Lab: The e-kalpa lab located at 2nd floor of Design department has facilities for Video recording and editing, Product Photography and computers required to generate content for Design Education and e-learning\
- Virtual Labs: Under Virtual lab project there are total 18 nos. of Labs which are physically located in 6 departments at IITG.
 - i) Virtual Mass Transfer Lab: This is a chemical engineering lab developed using labview software. A total of 12 experiments have been developed under this lab.
 - ii) System, Communication and Control Lab: This lab is under electrical and electronics engineering department. Ten experiments are developed out of which 4 experiments are real time experiments. Labview software is used to develop the experiments.
 - iii) Virtual Labs for Mechanical Vibrations: This lab is under mechanical engineering department. Ten experiments are developed using Labview software.

- iv) Speech Signal Processing Lab: This lab is under electrical and electronics engineering department. Nine experiments are developed using Scilab software.
- v) Digital VLSI Design Lab: This lab is under electrical and electronics engineering department. Seven experiments are developed using NGSpice software. Currently the lab is integrated and hosted in the cloud.
- vi) Signals and Systems Lab: This lab is under electrical and electronics engineering department. Five experiments are developed using Labview software. Currently the lab is integrated and hosted in the cloud.
- vii) Electrical Machines Lab: This lab is under electrical and electronics engineering department. Nine experiments are developed using adobe flash software. Currently the lab is integrated and hosted in the cloud.
- viii) Electronic Instrumentation Lab: This lab is under electrical and electronics engineering department. Nine experiments are developed using Labview software. Currently the lab is integrated and hosted in the cloud.
- ix) Virtual Laboratory Experience in Fluid and Thermal Sciences: This lab is under mechanical engineering department. Twelve experiments are developed using Labview software.
- x) Digital North East: This lab which is actually a repository of rare periodical archives, ethnographic reports etc is under humanities department.
- xi) Virtual English and Communication: This is a laboratory under humanities department. This laboratory is about English comprehension, grammatical errors, passage making etc. Eight experiments are developed using html, adobe flash software. Currently the lab is integrated and hosted in the cloud.
- xii) Virtual Anthropology Lab: This laboratory is under humanities department. A total of nine experiments are developed using adobe flash software. Currently the lab is integrated and hosted in the cloud.
- xiii) Ergonomics Lab for accessing physical aspect of design: This lab is under design department. Ten experiments are developed using adobe flash software. Currently the lab is integrated and hosted in the cloud.
- xiv) Creative design, prototyping and experimental simulation in human computer interaction: This lab is under design department. Sixteen experiments are developed using html5 and php.
- xv) Remote triggered fiber optic communication lab: This is a real time lab under electrical and

electronics engineering department. Six experiments are developed using Labview software.

- xvi) Remote triggered digital system design lab: This is a real time lab under computer science engineering department. Ten experiments are developed under this lab.

- xvii) Virtual robotics lab: This is a real time lab under mechanical engineering lab. Eight experiments are developed under this lab.

- xviii) Remote triggered electromechanical conversion lab: This is a real time lab under electrical and electronics engineering lab.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

Sl. No.	Equipment	Qty.
1	Apple Mac Pro 3.0 GHz 8-Core Intel Xeon E5	03
2	Video Camera	02
3	Video Switcher	02
4	Hard Disk Recorder & Hard Disk Drive	02
5	Touch Screen Display Panel	02
6	2-in-1 Laptop with Active Stylus pen	01
Under TEQIP - II		
7	Graphics Tablet	01
Under PMMMNTT		
8	5 mW Red(632.8 nm) HeNe Laser	01
Under GIAN		
9	Full HD Capture Card	01

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Course Content Creation with a foreign expert under GIAN, MOOCS content creation, Pedagogy Training, Teachers training.

Generation of design education courseware, Indian Craft resources, Case studies and video lectures for e-learning. Development of basic science experiments and pedagogy modules, Development, Integration and Hosting of the virtual labs on cloud.

MAJOR INITIATIVES

- i. Total 12 nos. of courses were organized under Global Initiative of Academic Networks (GIAN)
- ii. 18 nos. of video courses were completed under MOOCs

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. Maurizio Palesi	Department of Computer Engineering, University of Catania, Italy	Delivering GIAN course on “Scalable On-chip Interconnects for many-core Systems”	24-30 May 2017
Dr. Partha P. Mukherjee	Department of Mechanical Engineering, Texas A&M University (TAMU), USA	Delivering GIAN course on “Multiphysics Coupling in Energy Storage”	26-30 Jun 2017
Prof. Geoffrey Evans	School of Engineering, University of Newcastle, Callaghan NSW 2308, Australia	Delivering GIAN course on “Physical Modelling of Multiphase Processes in Mineral and Chemical Processing”	23- -28 Oct 2017
Prof. Patrick Flandrin	Associate Director of the federative CNRS Imminent Physicist from France	Delivering GIAN course on “Empirical Mode Decomposition and its Applications”	23-27 Oct 2017
Prof. Sebastien Tixeuil	Head of Networks and Systems Department Université Pierre et Marie Curie France	Delivering GIAN course on “Autonomic Networks”	30 Oct-3 Nov 2017
Dr. Anish Roy	Reader in Mechanics of Materials and Processes Wolfson School of Mechanical, Electrical and Manufacturing Engineering, Loughborough University, UK	Delivering GIAN course on “Crystal Plasticity Modelling of Micro-Machining Processes”	11-15 Dec 2017
Prof. Joe Pater	Department of Linguistics Science, USA	Delivering GIAN course on “Harmonic Grammar Models and Methods”	16-22 Dec 2017
Prof. K. S. Babu	Department of Physics, Oklahoma State University	Delivering GIAN course on “Electroweak Symmetry Breaking, Flavour Physics and BSM”	18-22 Dec 2017
Prof. Achintya Haldar	Department of Civil Engineering and Engineering Mechanics, University of Arizona, Tucson, USA	Delivering GIAN course on “Risk Based Damage-tolerant Seismic Design of Structures - A New Paradigm”	18-27 December 2017
Dr. Sayan Mitra	Associate Professor of Electrical and Computer Engineering, University of Illinois at Urbana - Champaign, USA	Delivering GIAN course on “Modeling and Verification of Cyber-Physical Systems”	1-5 Jan 2018
Prof. Rainer Martin	AUDIS coordinator, Institute of Communication Acoustics Ruhr-Universität Bochum Bochum, Germany	Delivering GIAN course on “Speech Enhancement for Hearing Aids”	23-27 Jan 2018
Prof. Hugo Leonardo Rufiner	Associate dean of Engineering and Water Sciences, National University of Litoral Santa Fe, Argentina	Delivering GIAN course on “Brain-Computer Interfaces for Speech Communication: Theory and Applications”	26 Feb-2 Mar 2018

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Sl. No.	Faculty	Name of Course	Funded by	Date	National/International	No. of participants
Under TEQIP-III						
1	Prof. Sunil Khijwania	TEQIP Phase III Orientation Conclave	MHRD	10-11 Aug 2017	National	60

Sl. No.	Faculty	Name of Course	Funded by	Date	National/International	No. of participants
2	Prof. Sunil Khijwania	TEQIP-III Teachers' Training Workshop on Induction program for NER Institutes	MHRD	13-15 Oct 2017	National	103
3	Prof. Sunil Khijwania	PFMS & PMSS Workshop cum training programme under TEQIP-III	MHRD	9 Nov 2017	National	48
4	Prof. Sunil Khijwania	Orientation workshop on Start-up and Innovation under TEQIP -III	MHRD	22-23 Dec 2017	National	23
Under E&ICT Academy						
1	Prof. Ratnajit Bhattacharjee, Prof. Rohit Sinha, Dr. Gaurav Trivedi (IIT Guwahati)	Workshop on VLSI Design trends & VIVADO Design Flow at IIT Guwahati in association with CoreEL Technologies	Meity	6-8 Oct 2017	National	26
2	Mr. Jainul Abudin	Workshop on Building Small Office Network at RIST in association with Techvictus Pvt. Ltd.	Meity	13-16 Oct 2017	National	54
3	Prof. Ratnajit Bhattacharjee, Prof. Rohit Sinha, Dr. Gaurav Trivedi (IIT Guwahati)	Workshop on 5G Networks at IIT Guwahati in association with Techvictus Pvt. Ltd.	Meity	22-24 Jan 2018	National	28
4	Dr. Santosh Biswas (IIT Guwahati), Dr. Aniruddha Dekha (Royal Global University)	Workshop on Ethical Hacking & Cyber Security at Royal Global University in association with Techvictus Pvt. Ltd.	Meity	7-9 Mar 2018	National	40
5	Prof. S. Hazarika (IIT Guwahati)	Workshop on Brain Waves Robotics at IIT Guwahati in association with Kovid Academy	Meity	26-28 Mar 2018	National	29
6	Dr. Hemant Khatania (NIT Sikkim)	FDP on Core VLSI Design, NIT Sikkim in Association with Entuple Technologies	Meity	4-9 Apr 2017	National	34

Sl. No.	Faculty	Name of Course	Funded by	Date	National/International	No. of participants
7	Prof. Ratnajit Bhattacharjee, Prof. Rohit Sinha, Dr. Gaurav Trivedi (IIT Guwahati)	FDP on HPC, IIT Guwahati in association with Wipro Ltd.	Meity	2-13 Apr 2017	National	13
8	Dr. John Jose (IIT Guwahati)	FDP on Digital VLSI Design & SCL PDK, IIT Guwahati in association with CoreEL Technologies & SCL Chandigarh	Meity	28 Apr-12 May 2017	National	26
9	Dr. Ferdous Ahmed Barbhuiya (IIIT Guwahati)	FDP on Data Analytics with Python, IIIT Guwahati in association with Kovid Academy	Meity	13-24 May 2017	National	30
10	Mr. Minaram Gogoi (Kherajkhata College)	FDP on ICT Tools for Classroom Teaching at Kherajkhata College in association with Trendsetter Academy	Meity	28 Jun-3 Jul 2017	National	60
11	Dr. A K Ojah (Chaidur College)	FDP on ICT Tools for Classroom Teaching at Chaidur College in association with Trendsetter Academy	Meity	1-6 Jul 2017	National	49
12	Dr. P. Ramesh (KITS College)	FDP on Cloud Computing with AWS at KITS, Guntur in association with Kovid Academy	Meity	7-13 Aug 2017	National	41
13	Dr. Navnath Saharia (IIIT Manipur)	FDP on Android Application Development at IIIT Manipur in association with Kovid Academy	Meity	21-27 Aug 2017	National	45
14	Dr. Chintamani Sharma (Nowgong College)	FDP on ICT Tools for Classroom Teaching at Nowgong College in association with Trendsetter Academy	Meity	6-21 Aug 2017	National	48
15	Dr. T. Gopalakrishnan (Bannari Institute)	FDP on Data Science & Big Data Analytics at Bannari Institute, Tamil Nadu in Association with Wipro Ltd	Meity	11-17 Aug 2017	National	40
16	Dr. Riazul Hoque	FDP on Behavioural Remodelling and Classroom Delivery Enhancement Techniques of Teachers	Meity	07-13 Nov 2017	National	45

Sl. No.	Faculty	Name of Course	Funded by	Date	National/International	No. of participants
17	Dr. Utpal Rajguru	FDP on ICT Tools for Classroom Teaching at Jagiroad College in association with Techvictus	Meity	20-26 Nov 2017	National	20
18	Dr. Mahima Ahwatia	FDP on RF Design at IITG	Meity	17-22 Dec 2017	National	11
19	Mr. R M Dev Sarma (Nazira College)	FDP on Blending Learning: Behavioral Remodeling For Enhancing The Classroom Delivery of Teachers at Nazira College	Meity	17-23 Jan 2018	National	42
20	Mr. Diganta Biswas (PB College)	FDP on ICT Tools for Classroom Teaching at P B College in association with Trendsetter Academy	Meity	5-11 Feb 2018	National	44
21	Dr. Chaitali Koyel (NIT Mizoram)	FDP on VLSI Design at NIT Mizoram in association with CoreEL Technologies	Meity	5-11 Mar, 2018	National	28
22	Dr. Manash Bhuyun (IIT Guwahati), Prof. Kandarpa Kumar Sarma (Gauhati University)	FDP on Deep Learning & Machine Learning at Gauhati University in association with Kovid Academy	Meity	19-24 Mar 2018	National	43
23	Prof. Ratnajit Bhattacharjee (IIT Guwahati)	Summer FDP on Fundamentals of Analog & Digital Communication Systems	Meity	13-22 May 2017	National	4
24	Dr. Santosh Biswas (IIT Guwahati)	Summer FDP on Fundamentals of Computer Networks & Security	Meity	25 May-2 Jun 2017	National	1
25	Dr. Gaurav Trivedi (IIT Guwahati)	Summer FDP on Digital VLSI Circuit Design	Meity	3-12 Jun 2017	National	3
26	Dr. Santosh Biswas (IIT Guwahati)	Summer FDP on Fundamentals of Databases	Meity	23 Jun-3 Jul 2017	National	1
27	Dr. Gaurav Trivedi (IIT Guwahati)	Winter FDP on OOPS	Meity	20-29 Nov 2017	National	3

Sl. No.	Faculty	Name of Course	Funded by	Date	National/International	No. of participants
28	Dr. Praveen Kumar (IIT Guwahati)	Winter FDP on Power Electronics	Meity	11-20 Dec 2017	National	6
Under Virtual Lab Project						
1	Prof. Ratnajit Bhattacharjee, Dr. Santosh Biswas	Demonstration and hands-on of Virtual Laboratory	MHRD	7 Apr 2017	National	120
2	Prof. Ratnajit Bhattacharjee, Dr. Santosh Biswas	Demonstration and hands-on of Virtual Laboratory	MHRD	21 Apr 2017	National	152

FACULTY MEMBERS ASSOCIATED WITH THE CENTRE

Sl. No.	Name	Designation and Department
1	Bhattacharjee, Ratnajit	Professor, Department of Electronics and Electrical Engineering
2	Biswas, Santosh	Associate Professor, Department of Computer Science and Engineering
3	Deka, Jatin	Professor, Department of Computer Science and Engineering
4	Gaurav, Trivedi	Associate Professor, Department of Electronics and Electrical Engineering
5	Khijwania, Sunil (Head of the Centre)	Professor, Department of Physics
6	Punekar, R. Mokashi	Professor, Department of Design
7	Shende, Avinash	Associate Professor, Department of Design
8	Soorathia, Keyur	Associate Professor, Department of Design

CENTRAL INSTRUMENTS FACILITY

INTRODUCTION

The Central Instruments Facility of IIT Guwahati hosts various sophisticated instruments which cater the need of cutting edge research in many areas of modern science and technology. It is one of the largest such facility in the country. CIF is used by 10 of the 16 academic/research departments and centres of the institutes. The instruments are operated through research scholars as a part of their teaching assistantship under supervision of technical staff of the centre. Apart from regular sample analysis of IIT Guwahati, it is also analyzing samples of other academic and research institutes of north-east region of India at a special discounted rate. In addition, CIF receives samples from all over the country from Jammu & Kashmir in the north to Tamil Nadu in the south. The centre also conducts scientific workshop/conference on sophisticated instruments to facilitate internal as well as external researchers.

YEAR OF ESTABLISHMENT OF THE CENTRE: 2004

EXISTING FACILITIES (MAJOR EQUIPMENT)

- 400 MHz Nuclear Magnetic Resonance (NMR) Spectrometer, Make: Varian, Model: Mercury plus
- Electron Spin Resonance (ESR) Spectrometer, Make: JEOL, Model: JES-FA200
- Field Emission Scanning Electron Microscope (FESEM), Make: Zeiss, Model: Sigma
- Laser Micro Raman System, Make: Horiba Jobin Yvon, Model: LabRam HR
- High Temperature Differential Scanning Calorimetry (DSC) / Thermo Gravimetric (TG) System, Make: Netzsch Model: STA449F3A00
- Transmission Electron Microscope (TEM), Make: JEOL, Model: JEM 2100
- Vibrating Sample Magnetometer (VSM), Make: Lakeshore, Model: 7400 series
- Liquid Chromatography Mass Spectrometer (LCMS/MS), Make: Waters, Model: Q-ToF Premier
- Picosecond Time-resolved cum Steady State Luminescence Spectrometer, Make: Edinburg Instruments, Model: FSP 920 & Lifespec II
- Desktop Helium Liquefier, Make: Cryomech, Model: LHEP18
- Physical Property Measurement System (PPMS), Make: Quantum Design, Model: PPMS-9
- Nanoindenter Make: CETR, Model: UNMT-1
- Spectroscopic Ellipsometer Make: SEMILAB, Model: GE55E
- Single Crystal X-ray Diffractometer, Make: Agilent Model: Single source supernova E (Mo source).
- Surface Area and pore size analyzer and high pressure surface analyzer, Make: Quantachrome Instruments, Model: Autosorb, IQ MP
- Impedance and Material Analyzer (IMA), Make: Novocontrol, Model: BDS 2300
- 600MHz Nuclear Magnetic Resonance (NMR) Spectrometer, Make: Bruker, Model: AVANCE III HD
- 250 KN Universal Testing Machine, Make: BISS, Model: MEDIAN 250
- Matrix Assisted Laser Desorption/Ionization – Time of Flight, Make: BRUKER Model: AUTOFLEX SPEED
- Field Emission transmission Electron Microscope (FETEM), Make: JEOL, Model: 2100F(HR)
- Isothermal Titration Calorimeter, Make: GE Health Care, Model: iTC 200 Micro-calorimeter
- Field Emission Scanning Electron Microscope (FESEM), Make: Zeiss, Model: Gemini 300
- Micro Particle Image Velocimetry system, Make: Dantec Model: 9080M0571
- Field Emission Scanning Electron Microscope (FESEM), Make: Zeiss, Model: Sigma 300
- Large Molecule Single Crystal X-ray Diffractometer, Make: Rigaku Model: Micromax 007 HF R-axis IV⁺⁺ Oxford

- High Temperature Gel Permeation chromatography (HT-GPC) system, Make: Agilent, Model: G7820A

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

- Atomic Force Microscope, make: Oxford Instruments, model: Cypher S
- 9KW Powder X-Ray Diffraction System, make: Rigaku Technologies, JAPAN, model: Smartlab

- Electro mechanical Universal Testing Machine, make: ZwickRoell, model: Z005TN Proline

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

- CIF hosts various sophisticated instruments which cater the need of cutting edge research in many areas of modern science and technology.
- CIF is used by 11 of the 14 Academic/Research Departments and Centres of the Institute.

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Prof. G. Krishnamoorthy	International Conference on Sophisticated Instruments and Modern Research (ICSIMR), 2017	IIT Guwahati	30 Jun-1 Jul 2017	International

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Conven- er/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
Prof. G. Krishnamoorthy	International Conference on Sophisticated Instruments and Modern Research (ICSIMR), 2017	Sponsorship	30 Jun-1 Jul 2017	International	174

SPECIAL MENTION

An amount equal to Rs. 2,75,000/- has been collected as sample charges from the analysis of external samples during the reporting year.

FACULTY MEMBER ASSOCIATED WITH THE CENTRE

Qureshi, Mohammad (Head of the Centre)

Professor, Department of Chemistry

COMPUTER AND COMMUNICATION CENTRE

INTRODUCTION

The Computer and Communication Centre of IIT Guwahati is the central computing resource pool of the institute. The Computer and Communication Centre is responsible for:

- Providing Email service and Internet connectivity to the institute
- Catering to the general purpose as well as high computational need of the users
- Maintenance of the campus network
- Hosting and maintenance of Institute's web pages
- Providing EPABX services
- Providing Office Automation services

The Computer and Communication Centre has been involved in development of several in-house software packages. It is also providing assistance to other academic institute of north-east region of India. The centre also conducts summer training to facilitate external students from various institutes of the region.

The computer lab of the centre is equipped with PCs with the latest configurations to facilitate the need of the IITG community. The lab remains open for 16 hours in a day which is accessible to all authorized users of the Institute. Computer practical for the common courses are held in the Centre. The computer lab facilities of the Centre are also extended to the students of other institutes. The resources of the Centre are constantly upgraded to meet the ever evolving standards of information technology.

The Computer and Communication Centre provide and maintain the PCs of the faculty and staff members of the Institute. In addition to providing direct support to the members of the Institute, the Computer and Communication Centre also frequently hosts write-ups (HOW-TOs, FAQs etc.) in its Intranet website. The Centre also maintains an online E-Notice board for posting and viewing notices electronically campus-wide, a web-based Complain Management Information System etc.

MAJOR EQUIPMENT AND FACILITIES

The major equipment purchased in the last financial year are:

PARAM-ISHAN

The PARAM-ISHAN, 250 TF peak computing performance, supercomputing facility was inaugurated by Shri Prakash Javadekar, Hon'ble Minister HRD, GoI on 19th Sept, 2016 at Data Center, IIT Guwahati. This was a joint project between IIT Guwahati and CDAC Pune. The facility consists of 126 Compute Nodes without Accelerator, 04 nodes of High Memory Compute Nodes without any Accelerator, 16 compute nodes with GPU and 16 Compute Nodes with Xeon Phi. The High Memory Compute Nodes consists of 512 GB of physical memory per node and rest of the nodes consists of 64 GB of physical memory per node. The GPU nodes consists of 2 nos. of NVIDIA Tesla K40 per node and Xeon Phi nodes consists of 2 nos. of Intel Xeon Phi 7120 per node. A Mellanox FDR (56Gbps) 324 port chassis switch is used as primary high speed interconnect. 300TB Storage with 15GB/s write throughput based on lustre parallel file system. Software Stack includes CentOS 6.6, Intel Parallel Studio 2016, GNU compilers, Intel MPSS, CUDA, Mellanox OFED, Luster, SLURM Resource Manager & Scheduler and Bright Cluster Manager. From the utilization point of view, Avg. Cluster CPU Cores Utilization is 73.36% & Avg. Cluster Memory Utilization is 2.4TB.

Computer Network Enhancement

The centre is responsible for providing the network connectivity to upcoming hostels/buildings as well as to reinforce the existing network infrastructure. To cater the need a number of network equipment were purchased & installed. They include L2 & L3 switches, Wall-mount racks, LIUs and other Fibre passive components like patch cord, pig-tail etc. The centre has also extended the network and voice facility to some new offices and infrastructures, like, Married hostel extension, Lohit hostel extension, new academic extension blocks of various departments.

Apart from these, for the IITG Data Centre, we have purchased managed network switches and its associated various passive components.

Also, we have installed & configured Cisco Router ASR 1001-X chassis for NKN internet bandwidth of 10Gbps capacity. Additionally, we have also configured VPN connectivity in this Router with 200 Licenses.

Servers and PCs

On the Server front, the Computer and Communication Centre has a mix of high-end Servers which caters to the need for Authentication, E-mail, Proxy, Automation and Web services. This year a total of nine new high end servers were purchased for new uses as well as for up-gradation of existing servers and two more blade servers has been added in the Automation project.

Renewal of License /Software

The Centre had renewed the Microsoft Campus License, the Matlab software with 165 licenses and Plagiarism detection Software TURNITIN with 1000 student user licenses, RedHat License and Barracuda Spam and Virus Filter license. Also, we have installed Mathematica 10.4 software with 50 user licenses and Comsol for 10 user license. This year we have purchased SSL certificate for our iit.ac.in domain and also renewed the SSL for iitg.ernet.in domain from DigiCert.

Expansion of existing EPABX system

With the expansion of the campus, the Computer Centre has increased the capability of the existing EPABX system and also extended its telephone network to new offices and expansion wings of the institute.

We have renovated the whole IITG campus telephone outdoor and indoor terminations. This year we have also upgraded the IITG telephone billing software, i.e., CUBETBS.

Office Automation Services

The Computer and Communication Centre has been involved in development of several in-house software packages for providing services to institute's various office automation works. These include online (Dual-Degree+MA+MTech-MDes/MS+PhD) application as well as data process, Training and Placement, Student Course Registration, Alumni Registration, Student Affairs, Faculty Online Leave, Staff Administration, Faculty Administration, Student Course Feedback, e-Payment application, ID Card application, IITG Payroll online, PDA application, PF application, Student Profile, Convocation Registration, MCM Scholarship, New students registration, Students course alias, RND project staff application, GMIS application, SA course registration, Library trainee recruitment, CC trainee recruitment, Stock Management, Sishugram voluntary donation and Electricity billing system.

This year, we have released Staff Leave System, Medical Application, Online Recruitment application, No-Dues application for Staff and Faculty, Telephone Bill Reimbursement, Freshers Portal for collecting additional information, HSS course registration, new MTech/MDes/MS online application and application for TA Authentication and Performance Evaluation. We have also integrated backlog course registration to the existing course registration application, integration of Station Leave / Multiple Leave / Departure / Rejoining to the existing faculty leave system, integration of library fee / semester registration fee (via loan) / Techniche registration fee payment to the existing e-payment application, integration of ID card apply option for Alumni students, integration of semester registration for

continuing students with the existing students registration application, integration of honorarium and consultancy to the existing payroll application, integration of passport application to the existing Student Profile portal and integration of GMIS apply option for students. We have plan to implement Application Software for different purposes for Academic, Student affairs, Finance & Accounts and Medical section along with the inclusion of gymkhana application, faculty recruitment application, APAR application, budget application, file tracking system, medical appointment system, integration STAF module to the existing Student Profile application and a centralized portal.

ONGOING SPONSORED PROGRAMMES

National Knowledge Network (NKN) Project

This year using NKN facility we have successfully hosted Hon. President's address to NITs and central universities interactive Video conferencing event in IITG. The event was jointly organised by National Informatics Centre (NIC) and IIT Guwahati with support from Computer and communication centre. This year NKN has also upgraded the bandwidth to 10 Gbps.

ERNET Point of Presence

IIT Guwahati, a PoP (Point-of-Presence) for ERNET India in the whole of North-Eastern India is entrusted with the task of networking the academic institutions of the region and provide technical assistance where required. Currently the following, seven educational and research institutes have taken Internet connectivity from the ERNET PoP.

- IIT Guwahati, (1:1) 8 Mbps leased line
- Tezpur University, Assam, (1:1) 2 Mbps leased line
- Assam Agricultural University, Guwahati. (1:1) 2 Mbps leased line
- Centre of Central Inland Fisheries Research Institute, (1:1) 2Mbps leased line
- Rajiv Gandhi University, Arunachal Pradesh, (1:1) 2 Mbps leased line

The ERNET node is upgraded with high end Juniper routers, switches and firewalls. The PoP backbone has 1 Gbps connectivity to NKN Guwahati, NKN Delhi, and NKN Mumbai.

CONSULTANCY AND OTHER COMMUNITY SERVICES

The Computer Centre has been involved in setting up of campus network and providing consultancy services to nearby educational institutes and state government departments as and when needed.

The Centre has donated 12 nos. of used PC and 600 VA UPS to Kamrup District Administration for their child welfare scheme.

FACULTY MEMBER ASSOCIATED WITH THE CENTRE

Kapoor, Kalpesh, (**Head of the Centre**)

Professor, Department of Mathematics

PART III

RESEARCH PUBLICATIONS

Journal Papers

Conference Papers

Books

Book Chapters

DETAILS OF RESEARCH AND DEVELOPMENT ACTIVITIES

Journal Papers

Biosciences and Bioengineering

Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Kuldeep Mahato, Pawan K. Maurya, Pranjal Chandra	Fundamentals and commercial aspects of nanobiosensors in point-of-care clinical diagnostics	3 Biotech	2018	8	3	149	NA
Narendra Naik Deshavath, Mood Mohan, Venkata Dasu Veeranki, Vaibhav V. Goud, Srinivasa Rao Pinnamaneni, Tamal Benarjee	Dilute acid pretreatment of sorghum biomass to maximize the hemicellulose hydrolysis with minimized levels of fermentative inhibitors for bioethanol production	3 Biotech	2017	7	-	1	12
L. Goswami, N. A. Manikandan, K. Pakshirajan, G. Pugazhenth	Simultaneous heavy metal removal and anthracene biodegradation by the oleaginous bacteria Rhodococcus opacus	3 Biotech	2017	7	-	1	9
Swati Sharma, Sakshi Tiwari, Abshar Hasan, Varun Saxena, Lalit M. Pandey	Recent advances in conventional and contemporary methods for remediation of heavy metal contaminated soils	3 Biotech	2018	DOI : 10.1007/s13205-018-1237-8			
Shilpa N. Patere, Pankaj O. Pathak, Anil Kumar Shukla, Rajesh Kumar Singh, Vikash Kumar Dubey, Miten J. Mehta, Anand G. Patil, Vikram Gota, Mangal S. Nagarsenker	Surface-Modified Liposomal Formulation of Amphotericin B: In vitro Evaluation of Potential Against Visceral Leishmaniasis	AAPS PharmSciTech	2017	18	3	710	720
Deepanjalee Dutta, Sunil Kumar Sailapu, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Phenylboronic Acid Templated Gold Nanoclusters for Mucin Detection Using a Smartphone-Based Device and Targeted Cancer Cell Theranostics	ACS Applied Materials & Interfaces	2018	10	4	3210	3218
Upashi Goswami, Anushree Dutta, Asif Raza, Raghuram Kandimalla, Sanjeeb Kalita, Siddhartha Sankar Ghosh, Arun Chattopadhyay	Transferrin-Copper Nanocluster-Doxorubicin Nanoparticles as Targeted Theranostic Cancer Nanodrug	ACS Applied Materials & Interfaces	2018	10	4	3282	3294
Joseph Christakiran M., Philip J. T. Reardon, Rocktotpal Konwarh, Jonathan C. Knowles, Biman B. Mandal	Mimicking Hierarchical Complexity of the Osteochondral Interface Using Electrospun Silk-Bioactive Glass Composites	ACS Applied Materials and Interfaces	2017	9	9	8000	8013

Journal Papers

Biosciences and Bioengineering

Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Linnea Nilebäck, Dimple Chouhan, Ronnie Jansson, Mona Widhe, Biman B. Mandal, My Hedhammar	Silk–Silk Interactions between Silkworm Fibroin and Recombinant Spider Silk Fusion Proteins Enable the Construction of Bioactive Materials	ACS Applied Materials and Interfaces	2017	9	-	31634	31644
Avijit Das, Jumi Deka, Adil Rather, Bibhas Bhunia, Partha Saikia, Biman B. Mandal, Kalyan Raidongia, Uttam Manna	Strategic Formulation of Graphene Oxide Sheets for Flexible Monoliths and Robust Polymeric Coatings that Embedded with Durable Bio-inspired Wettability	ACS Applied Materials and Interfaces	2017	9	-	42354	42365
Bandhan Chatterjee, Archita Ghoshal, Arun Chattopadhyay, Siddhartha Sankar Ghosh	dGTP Templated Luminescent Gold Nanocluster Based Composite Nanoparticles for Cancer Theranostics	ACS Biomaterials Science & Engineering	2018	4	3	1005	1012
Manishekhar Kumar, Samit Nandi, David Kaplan, Biman B. Mandal	Localized Immunomodulatory Silk Macrocapsules for Islet-like Spheroid Formation and Sustained Insulin Production	ACS Biomaterials Science & Engineering	2017	3	-	2443	2456
Arvind Gupta, Arbind Prasad, Neha Mulchandani, Manisha Shah, Mamilla Ravi Sankar, Sachin Kumar, Vimal Katiyar	Multifunctional Nanohydroxyapatite-Promoted Toughened High-Molecular-Weight Stereocomplex Poly (lactic acid)-Based Bionanocomposite for Both 3D-Printed Orthopedic Implants and High-Temperature Engineering Applications	ACS Omega	2017	7	2	40392	405
Amit Kumar, Priyadarshi Satpati	Energetics of preferential binding of RIG-I to double-stranded viral RNAs with 5' tri/di phosphate over 5' monophosphate	ACS Omega	2018	3	4	3786	3795
Sunil Kumar Sailapu, Deepanjalee Dutta, Amaresh Kumar Sahoo, Siddhartha Sankar Ghosh, Arun Chattopadhyay	Single Platform for Gene and Protein Expression Analyses Using Luminescent Gold Nanoclusters	ACS Omega	2018	3	2	2119	2129
Jadi Praveen Kumar, Rocktotpal Konwarh, Manishekhar Kumar, Ankit Gangrade, Biman B. Mandal	Potential nanomedicine applications of multifunctional carbon nanoparticles developed using green technology	ACS Sustainable Chemistry & Engineering	2018	6	-	1235	1245
Amaresh Kumar Sahoo, Sunil Kumar Sailapu, Deepanjalee Dutta, Subhamoy Banerjee, Siddhartha Sankar Ghosh, Arun Chattopadhyay	DNA-Templated Single Thermal Cycle Based Synthesis of Highly Luminescent Au Nanoclusters for Probing Gene Expression	ACS Sustainable Chemistry & Engineering	2018	6	2	2142	2151

Journal Papers

Biosciences and Bioengineering

Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Dimple Chouhan, Bijayshree Chakraborty, Samit K. Nandi, Biman B. Mandal	Role of Non-Mulberry Silk Fibroin in Deposition and Regulation of Extracellular Matrix Towards Accelerated Wound Healing	Acta Biomaterialia	2017	48	-	157	174
Janani Guru, Samit Nandi, Biman B. Mandal	Functional hepatocyte clusters on bioactive blend silk matrices towards generating bioartificial liver constructs	Acta Biomaterialia	2018	67	-	167	182
Kedar Sharma, Shadab Ahmed, Carlos M. G. A. Fontes, Shabir Najmudin, Arun Goyal	Low-resolution structure analysis of α -L-arabinofuranosidase (CtGH43) by SAXS	Acta Crystallographica Section A	2017	A73	-	C236	-
Arun Goyal, Anil Kumar Verma, Filipe Freire, Carlos M. G. A. Fontes, Shabir Najmudin	Crystal structure and reaction mechanism of glucuronoxylan endo- β -1, 4-xylanase	Acta Crystallographica Section A	2017	A73	-	C235	-
Barnali Nath, Sachin Kumar	Emerging variant of genotype XIII Newcastle disease virus from Northeast India	Acta Trop	2017	172		64	69
Shyam Singh Dahiya, Sachin Kumar, Sharat Chandra Mehta, Raghvendar Singh, Kashi Nath, Shirish Dadarao Narnaware, Fateh Chand Tuteja	Molecular characterization of Camelpox virus isolates from Bikaner, India: Evidence of its endemicity	Acta Tropica	2017	-	171	1	5
Elina Khatoon, Nagendra Nath Barman, Manab Deka, Gitika Rajbongshi, Kongkon Baruah, Nipu Deka, Durlav Prasad Bora, Sachin Kumar	Molecular characterization of classical swine fever virus isolates from India during 2012-14	Acta Tropica	2017	-	170	184	189
Prahlad Baruah, Anuma Singh, Iffat Jahan, Aditya N. Panda, Latha Rangan, Ashwini Kumar Sharma, Alike Khare	Surface-enhanced Raman scattering from copper nanoparticles treated furanoflavonoid karanjin	Advanced Materials Letters	2017	8(10)	-	971	976
Sunita Ojha, Arghya Sett, Utpal Bora	Green synthesis of silver nanoparticles by Ricinus communis var. carmencita leaf extract and its antibacterial study	Advances in Natural Sciences: Nanoscience and Nanotechnology	2017	8	3	1	8
Adreeja Basu, Lokanadha Rao Gunupuru, Lingaraj Sahoo	Morphometric characterization of Jatropha curcas germplasm of North-East India	African Journal of Biotechnology	2017	-	-	-	-

Journal Papers

Biosciences and Bioengineering

Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Soham Samanta, Senjuti Halder, Poulomi Dey, Utsab Manna, Aiyagari Ramesh, Gopal Das	A ratiometric fluorogenic probe for real-time sensing of SO ₃ ²⁻ in aqueous medium: Application in cellulose paper based device and potential to sense SO ₃ ²⁻ in mitochondria	Analyst	2018	143	1	250	257
Soutick Nandi, Sooram Banesh, Vishal Trivedi, Shyam Biswas	A dinitro functionalized metal organic framework featuring visual and fluorogenic sensing of H ₂ S in living cells, human blood plasma and environmental samples	Analyst	2018	143	6	1482	1491
Priyamvada Jain, Babina Chakma, Sanjukta Patra, Pranab Goswami	Hairpin stabilized fluorescent silver nanoclusters for quantitative detection of NAD ⁺ and monitoring NAD ⁺ /NADH based enzymatic reactions	Analytica Chimica Acta	2017	956	-	48	56
Bitan Saha, Manash P. Borgohain, Chandrima Dey and Rajkumar P. Thummer	iPS Cell Generation: Current and Future Challenges	Ann Stem Cell Res Ther	2018	1	2	1	4
D. Gohain, Avishek Roy, Ranjan Tamuli	Calcium signaling proteins in human diseases and their potential as drug targets	Annals of Pharmacology and Pharmaceutics	2017	2	22	1117	-
Prachi Bhalla, Sabera Sultana, Adarsh Kumar Chiranjivi, Anil Kumar Saikia, Vikash Kumar Dubey	Synthesis and Evaluation of Methyl 4-(7-Hydroxy-4, 4, 8-Trimethyl-3-Oxabicyclo [3.3.1] Nonan-2-yl) Benzoate as an Antileishmanial Agent and Its Synergistic Effect with Miltefosine	Antimicrobial Agents and Chemotherapy	2018	62	2	e01810-17	E01817
Karukriti Kaushik Ghosh, Aman Prakash, Vinayagamurthy Balamurugan, Manish Kumar	Catecholamine modulated novel surface exposed adhesin LIC20035 of <i>Leptospira</i> binds host extracellular matrix components and is recognized by host during infection.	Applied and Environmental Microbiology	2018	doi: 10.1128/AEM.02360-17		84	-
Rwivoo Baruah, Barsha Deka, Niharika Kashyap, Arun Goyal	Optimization and scale up of dextran from <i>Weissella cibaria</i> RBA12 in bioreactor using batch and fed-batch fermentation	Applied Biochemistry and Biotechnology	2018	184	-	1	11
Sourav Bhowmick, Achinta Jana, Subba R. Marri, Prerak Gupta, J. N. Behera, Biman B. Mandal, Neeladri Das	Pyrazine based Pt (II) bis-alkynyl organometallic complexes: synthesis, characterization and cytotoxic effect on A549 human carcinoma cells	Applied Organometallic Chemistry	2017	31	-	e3824	3829
Vikky Rajulapati, Kedar Sharma, Arun Dhillon, Arun Goyal	SAXS and homology modelling based structure characterization of pectin methylesterase a family 8 carbohydrate esterase from <i>Clostridium thermocellum</i> ATCC 27405	Archives of Biochemistry and Biophysics	2018	641C	-	39	49

Journal Papers

Biosciences and Bioengineering

Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Ketan Ganar, Moushume Das, Ashwin Ashok Raut, Anamika Mishra, Sachin Kumar	Emergence of a deviating genotype VI pigeon paramyxovirus type-1 isolated from India	Archives of Virology	2017	-	162	2169	2174
Moushume Das, Sachin Kumar	Evidence of independent evolution of genotype XIII Newcastle disease viruses from India	Archives of Virology	2017	-	162	997	1007
Sanjeev Kumar, BhabenTanti, Sunil K.Mukherjee, Lingaraj Sahoo	Molecular characterization and infectivity of Mungbean Yellow Mosaic India virus associated with yellow mosaic disease of cowpea and mungbean.	Biocatalysis and Agricultural Biotechnology	2017	-	-	-	-
Narendra Naik Deshavath, V. Venkata Dasu, V. V. Goud, P. Srinivasa Rao	Development of dilute sulfuric acid pretreatment method for the enhancement of xylose fermentability	Biocatalysis and Agricultural Biotechnology	2017	11	-	224	230
Karabi Saikia, Nitin Chaudhary	Interaction of MreB-derived antimicrobial peptides with membranes	Biochemical and Biophysical Research Communications	2018	498	-	58	63
Prakash Kishore Hazam, Gaurav Jerath, Anil Kumar, Nitin Chaudhary, Vibin Ramakrishnan	Effect of tacticity-derived topological constraints in bactericidal peptides. Modulation of Peptide Based Nano-Assemblies with Electric and Magnetic Fields	Biochimica et BiophysicaActa	2017	doi:10.1016/j.bbamem.2017.05.002		-	-
Sharmila Thilagavathy Narayanan, Pallab Sanpui, Lingaraj Sahoo, Siddhartha Ghosh	Tobacco phytaspase: Successful expression in a heterologous system	Bioengineered	2017	-	-	-	-
Nikhil Gupta, N. Arul Manikandan, Kannan Pakshirajan	Real-time lipid production and dairy wastewater treatment using Rhodococcus opacus in a bioreactor under fed-batch, continuous and continuous cell recycling modes for potential biodiesel application	Biofuels	2018	9	2	239	245
Aditi Makhija, Sachin Kumar	Characterization of duck plague virus stability at extreme conditions of temperature, pH and salt concentration	Biologicals	2017	-	45	102	105
Suradip Das, Manav Sharma, Dhiren Saharia, Kushal Konwar Sarma, Elizabeth Muir, Utpal Bora	Electrospun silk-polyaniline conduits for functional nerve regeneration in rat sciatic nerve injury model	Biomedical Materials	2017	12	4	-	-
Yogendra P.Singh, Mimi Adhikary, Nandana Bhardwaj, Bibhas K. Bhunia, Biman B. Mandal	Silk fiber reinforcement modulates in vitro chondrogenesis in 3D composite scaffolds	Biomedical Materials	2017	12	-	45012	-

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Seema Patel, Nithya Mathivanan, Arun Goyal	Bacterial adhesins: Understanding these pathogenic weapons to trick host defense arsenal	Biomedicine & Pharmacotherapy	2017	93	-	763	771
Venkateswara R. Naira, Debasish Das, Soumen K. Maiti	Designing a CO ₂ supply strategy for microalgal biodiesel production under diurnal light in a cylindrical-membrane photobioreactor	Bioresource Technology	2017	https://doi.org/10.1016/j.biortech.2017.11.087		-	-
Shyamali Sarma, Avinash Anand, Vikash Kumar Dubey, V. S. Moholkar	Metabolic flux network analysis of hydrogen production from crude glycerol by <i>Clostridium pasteurianum</i>	Bioresource Technology	2017	S0960-8524	17	30450	30459
M. Kaushal, K. V. N. Chary, S. Ahlawat, B. Palabhanvi, G. Goswami, D. Das	Understanding regulation in substrate dependent modulation of growth and production of alcohols in <i>Clostridium sporogenes</i> NCIM 2918 through metabolic network reconstruction and flux balance analysis	Bioresource Technology	2018	249	-	767	776
E. R. Rene, N. Sergienko, T. Goswami, M. E. López, G. Kumar, G. D. Saratale, P. Venkatachalam, K. Pakshirajan, T. Swaminathan	Effects of concentration and gas flow rate on the removal of gas-phase toluene and xylene mixture in a compost biofilter	Bioresource technology	2018	248	-	28	35
Surajbhan Sevda, T. R. Sreekrishnan, Narcis Pous, Sebastia Puig, Deepak Pant	Bioelectroremediation of perchlorate and nitrate contaminated water: A review	Bioresource technology	2018	225	-	331	339
P. D. Thungon, A. Kakoti, L. Ngashangva, P. Goswami	Advances in developing rapid, reliable and portable detection systems for alcohol	Biosensors and Bioelectronics	2017	97	-	83	99
Kuldeep Mahato, Ashutosh Kumar, Pawan Kumar Maurya, Pranjal Chandra	Shifting paradigm of cancer diagnoses in clinically relevant samples based on miniaturized electrochemical nanobiosensors and microfluidic devices	Biosensors and Bioelectronics	2017	100	-	411	428
Saeromi Chung, Pranjal Chandra, Jaseok Peter Koo, Yoon-Bo Shim	Development of a bifunctional nanobiosensor for screening and detection of chemokine ligand in colorectal cancer cell line	Biosensors and Bioelectronics	2017	100	-	393	403
Kuldeep Mahato, Ananya Srivastava, Pranjal Chandra	Paper based diagnostics for personalized health care: Emerging technologies and commercial aspects	Biosensors and Bioelectronics	2017	96	-	246	259
Neha Arora, Lalitha Gavya S., Siddhartha Sankar Ghosh	Multi-facet implications of PEGylated lysozyme stabilized-silver nanoclusters loaded recombinant PTEN cargo in cancer theranostics	Biotechnology and Bioengineering	2018	DOI: 10.1002/bit.26553		-	-

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Sharmila Narayanan, Deepanjalee Dutta, Neha Arora, Lingaraj Sahoo, Siddhartha Sankar Ghosh	Phytaspase-loaded, Mn-doped ZnS quantum dots when embedded into chitosan nanoparticles leads to improved chemotherapy of HeLa cells using in cisplatin	Biotechnology Letters	2017	39	10	1591	1598
A. B. Kunnumakkara, D. Bordoloi, G. Padmavathi, J. Monisha, N. K. Roy, S. Prasad, B. B. Aggarwal	Curcumin, the golden nutraceutical: multitargeting for multiple chronic diseases	British Journal of Pharmacology	2017	174	11	1325	1348
K. Banik, C. Harsha, D. Bordoloi, B. Laldusaki Sailo, G. Sethi, H. C. Leong, F. Arfuso, S. Mishra, L. Wang, A. P. Kumar, A. B. Kunnumakkara	Therapeutic potential of gambogicacid, a caged xanthone, to target cancer	Cancer Letter	2018	416	-	75	86
Vinay Kumar Gadi, Yi-Rui Tang, Arka Das, Charu Monga, Ankit Garg, Christian Berretta, Lingaraj Sahoo	Spatial and temporal variation of hydraulic conductivity and vegetation growth in green infrastructures using infiltrometer and visual technique	Catena	2017	-	-	-	-
Vidushi Kapoor, Rajanikant Rai, Durairaj Thiyagarajan, Sandipan Mukherjee, Gopal Das, Aiyagari Ramesh	A Nonbactericidal Zinc-Complexing Ligand as a Biofilm Inhibitor: Structure-Guided Contrasting Effects on Staphylococcus aureus Biofilm	ChemBioChem	2017	18	15	1502	1509
Karuna Mahato, Neha Arora, P. R. Bagdi, R. Gattu, Siddhartha Sankar Ghosh, Abu Taleb Khan	An oxidative cross-coupling reaction of 4-hydroxydithiocoumarin and amines/thiols using a combination of I2 and TBHP: access to lead molecules for biomedical applications	Chemical Communications	2018	54	-	1513	1516
Shalini Singh, Ekta Kumari, Ruchika Bhardwaj, Ritesh Kumar, Vikash Kumar Dubey	Molecular events leading to death of Leishmania donovani under spermidine starvation after hypericin treatment	Chemical Biology & Drug Design	2017	90	-	962	967
M. Gopi Kirana, Kannan Pakshirajan, Gopal Das	A new application of anaerobic rotating biological contactor reactor for heavy metal removal under sulfate reducing condition	Chemical Engineering Journal	2017	321	-	67	75
Ritesh S. Malani, Shubham Patil, Kuldeep, Sankar Chakma, Arun Goyal, Vijayanand Suryakant Moholkar	Mechanistic analysis of ultrasound-assisted biodiesel synthesis with Cu2O catalyst and mixed oil feedstock using continuous (packed bed) and batch (slurry) reactors	Chemical Engineering Science	2017	170	-	743	755

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Ashish A. Prabhu, Biju Bharali, Anuj Kumar Singh, Mounika Allaka, Piruthivi Sukumar, Venkata Dasu Veeranki	Engineering folding mechanism through Hsp70 and Hsp40 chaperones for enhancing the production of recombinant human interferon gamma (rhIFN- γ) in <i>Pichia pastoris</i> cell factory	Chemical engineering sciences	2018	181	-	58	67
Saumya Prasad, Imon Mandal, Shubham Singh, Ashim Paul, Bhubaneswar Mandal, RavindraVenkatramani, Rajaram Swaminathan	Near UV-Visible electronic absorption originating from charged amino acids in a monomeric protein	Chemical Science	2017	8	-	5416	5431
Abhishek Saha, Subhankar Panda, Nirmalya Pradhan, Kangkan Kalita, Vishal Trivedi, Debasis Manna	Azidophosphonate chemistry as route to a novel class of vesicle forming phosphonolipids	Chemistry – A European Journal	2017	24	5	1121	1127
Nirmalya Pradhan, Saurav Paul, Ashalata Roy, Suman Jyoti Deka, Vishal Trivedi, Debasis Manna	Identification of Substituted 1H-Indazoles as Potent Inhibitors for Immunosuppressive Enzyme Indoleamine 2,3-Dioxygenase 1	Chemistry select	2017	2	-	5511	5517
P. Chauhan, P. Dey, S. Mukherjee, U. Manna, G. Das, A. Ramesh	A cytocompatible zinc oxide nanocomposite loaded with an amphiphilic arsenal for alleviation of <i>Staphylococcus</i> biofilm	Chemistry Select	2018	3	9	2492	2497
Durairaj Thiagarajan, Gopal Das, Aiyagari Ramesh	Amphiphilic Cargo-Loaded Nanocarrier Enhances Antibiotic Uptake and Perturbs Efflux: Effective Synergy for Mitigation of Methicillin-Resistant <i>Staphylococcus aureus</i>	ChemMedChem	2017	12	14	1125	1132
Krishan Kumar Thakur, Devivasha Bordoloi, Ajaikumar B. Kunnumakkara	Alarming Burden of Triple-Negative Breast Cancer in India	Clinical Breast Cancer	2017	S1526-8209		17	30160
Ajaikumar B. Kunnumakkara, Devivasha Bordoloi, Choudhary Harsha, Kishore Banik, Subash Chandra Gupta, Bharat Bhushan Aggarwal	Curcumin mediates anticancer effects by modulating multiple cell signaling pathways	Clinical Science	2017	131	15	1781	1799
Sitrarasu Vijaya Prabhu, Kartikeya Tiwari, Venkatesan Suryanarayanan, Vikash Kumar Dubey, Sanjeev Kumar Singh	Exploration of potent molecules against CAAX prenyl protease I of <i>Leishmania donovani</i> through Pharmacophore based virtual screening approach	Combinatorial Chemistry & High Throughput Screening	2017	20	-	255	271

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Sanjukta Patra, Ashwinee Kumar Shrestha, Nitendra Kumar	The Metabolomic Strategy in Tuberculosis Therapy	Combinatorial Chemistry & High Throughput Screening	2017	20	3	235	246
Seema Patel, Aruna Rani, Arun Goyal	Insights into the immune manipulation mechanisms of pollen allergens by protein domain profiling	Computational Biology and Chemistry	2017	70	-	31	39
Aparajita Dutta, Tushar Dubey, Kusum Kumari Singh, Ashish Anand	SpliceVec: Distributed feature representations for splice junction prediction	Computational Biology and Chemistry	2018	doi.org/10.1016/j.compbiolchem.2018.03.009		-	-
Debamitra Chakravorty, Mohd. Faheem Khan, Sanjukta Patra	Thermostability of Proteins Revisited Through Machine Learning Methodologies: From Nucleotide Sequence to Structure	Current Biotechnology	2017	6	1	39	49
Suman Jyoti Deka, Vishal Trivedi	Potentials of PKC in cancer progression and anticancer drug development	Current drug discovery technology	2018	DOI: 10.2174/15701638 15666180 219113614		-	-
Monisha Javadi, Nand kishor Roy, Devivasha Bordoloi, Amit Kumar, Ramesh Golla, Jibon Kotoky, Padmavathi Ganesan, Ajaikumar B. Kunnumakkara	Nuclear Factor Kappa B: A Potential Target to Persecute Head and Neck Cancer	Current Drug Targets	2017	18	2	232	253
Nand Kishor Roy, Devivasha Bordoloi, Monisha Javadi, Padmavathi Ganesan, Jibon Kotoky, Ramesh Golla, Ajaikumar B. Kunnumakkara	Specific Targeting of Akt Kinase Isoforms: Taking the Precise Path for Prevention and Treatment of Cancer	Current Drug Targets	2017	18	4	421	435
Ananya Barman, Ranjan Tamuli	The pleiotropic vegetative and sexual development phenotypes of Neurospora crassa arise from double mutants of the calcium signaling genes plc-1, splA2, and cpe-1	Current Genetics	2017	63	5	861	875
Anand Tiwari, Serena Daniel Ngilmei, Ranjan Tamuli	The NcZrg-17 gene of Neurospora crassa encodes a cation diffusion facilitator transporter required for vegetative development, tolerance to endoplasmic reticulum stress and cellulose degradation under low zinc conditions	Current Genetics	2017	https://doi.org/10.1007/s00294-017-0794-4		-	-

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S. J. Deka, S. Gorai, D. Manna, V. Trivedi	Evidence of PKC Binding and Translocation to explain the anticancer mechanism of chlorogenic acid in breast cancer cells	Current Molecular Medicine	2017	117	1	79	89
A. A. Prabhu, B. Boro, B. Bharali, S. Chakraborty, V. V. Dasu	Gene and process level modulation to overcome the bottlenecks of recombinant proteins expression in <i>Pichia pastoris</i>	Current pharmaceutical biotechnology	2018	-	-	-	-
Nandana Bhardwaj, Dimple Chouhan, Biman B. Mandal	Tissue engineered skin and wound healing: current strategies and future directions	Current pharmaceutical design	2017	23	24	3455	3482
Aruna Rani, Seema Patel, Arun Goyal	Chondroitin sulphate lyases: structure, function and application in therapeutics	Current Protein and Peptide Science	2018	19	-	22	23
Kedar Sharma, Arun Dhillon, Arun Goyal	Insights into structure and reaction mechanism of mannanase. Current Protein and Peptide Science	Current Protein and Peptide Science	2018	19	-	34	47
Soutick Nandi, Helge Reinsch, Sooram Banesh, Norbert Stock, Vishal Trivedi, Shyam Biswas	Azide-functionalized Al(III)-based CAU-10 metal-organic framework as a fluorescent turn-on probe for the selective and sensitive detection of H ₂ S	Daltan Transduction	2017	46	38	12856	12864
Aniruddha Das, Sooram Banesh, Vishal Trivedi, Shyam Biswas	Extraordinary Sensitivity for H ₂ S and Fe (III) Sensing in Aqueous Medium by Al-MIL-53-N3 Metal-Organic Framework: In Vitro and In Vivo Sensing Applications	Dalton Transactions	2018	47	-	2690	2700
Supriyo Basak, Latha Rangan	New record of nuclear DNA amounts of some Zingiberaceae species from North east India	Data in Brief	2018	17	-	66	70
Surajbhan Sevda, Ibrahim Abu Ressh	Effect of the organic load on salt removal efficiency of microbial desalination cell	Desalination and Water Treatment	2017	DOI: 10.5004/dwt.2018.21903		-	-
Kashish, Surabhi Bansal, Anurag Jyoti, Kuldeep Mahato, Pranjal Chandra, Rajiv Prakash	Highly Sensitive In Vitro Biosensor for Enterotoxigenic <i>Escherichia coli</i> Detection Based on ssDNA Anchored on PtNPs-Chitosan Nanocomposite	Electroanalysis	2017	27	-	1	8
Peter M. Gresshoff, Latha Rangan, Arief Indrasumunar, Paul T. Scott	A new bioenergy crop based on oil-rich seeds from the legume tree <i>Pongamia pinnata</i> . 5: 19-26	Energy and Emission Control Technologies	2017	5	-	19	26
" Vinay Kumar Gadi, Sanandam Bordoloi, Ankit Garg, Lingaraj Sahoo, Christian Berretta, Sreedeeep Sekharan "	Effect of shoot parameters on cracking in vegetated soil	Environmental Geotechnics	2017	-	-	-	1-8.

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Omega L. Diengdoh, Mayashree B. Syiem, Kannan Pakshirajan, Amar N. Rai	Zn ²⁺ sequestration by Nostoc muscorum: study of thermodynamics, equilibrium isotherms, and biosorption parameters for the metal	Environmental Monitoring and Assessment	2017	189	-	314	327
Bhaskar Das, Sanjukta Patra	Multisubstrate specific flavin containing monooxygenase from Chlorella pyrenoidosa with potential application for phenolic wastewater remediation and biosensor application	Environmental Technology	2017	13	-	1	7
B. Mondal, K. Mondal, P. Satpati, S. C. Pan	Organocatalytic Asymmetric Dimerization of γ -Hydroxyenones to Acetals and Theoretical Investigations into the Diastereoselection	European Journal of Organic Chemistry	2017	10.1002/ejoc.201701439		-	-
Manishekhar Kumar, Samit K. Nandi, David L. Kaplan, Biman B. Mandal	Immunomodulatory bioartificial pancreas for sustained insulin production in diabetic patients	European Cells & Materials	2017	33	-	323	-
Bibhas K. Bhunia, Manishekhar Kumar, Biman B. Mandal	Development of silk-based angle-ply construct for annulus fibrosus tissue engineering	European Cells and Materials	2017	33	-	425	-
Ruchika Bhardwaj, Mousumi Das, Shalini Singh, Adarsh Kumar Chiranjivi, Sitaraau Vijaya Prabhu, Sanjeev Kumar Singh, Vikash Kumar Dubey	Evaluation of CAAX prenyl protease II of Leishmania donovani as potential drug target: infectivity and growth of the parasite is significantly lowered after the gene knockout	European Journal of Pharmaceutical Sciences	2017	102	-	156	160
D. Chakravorty, M. F. Khan, S. Patra	Multifactorial level of extremostability of proteins: can they be exploited for protein engineering	Extremophiles	2017	21	3	419	444
Santosh Kumar Behera, Anwesha Murkherjee, G. Sadhuragiri, Palani Elumalai, M. Sathiyendiran, Manishekhar Kumar, Biman B. Mandal, G. Krishnamoorthy	Aggregation Induced Enhanced and Exclusive Highly Stokes Shifted Emission from an Excited State Intramolecular Proton Transfer Exhibiting Molecule	Faraday Discussions	2017	196	-	71	90
Prerana Gogoi, Shankar Prasad Kanaujia	Archaeal and eukaryal translation initiation factor 1 differ in their RNA interacting loops	FEBS Letters	2018	-	-	-	-
C. Harsha, K. Banik, D. Bordoloi, A. B. Kunnumakkara	Anticancer properties of fruits and vegetables: A mechanism based perspective	Food Chem Toxicol	2017	108	-	104	119
Jadi P. Kumar, Biman B. Mandal	Antioxidant potential of mulberry and non-mulberry silk sericin and its implications in biomedicine	Free Radical Biology and Medicine	2017	108	-	803	818

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Khushwant Singh, Ankit Gangrade, Sourav Bhowmick, Achintya Jana, Biman B. Mandal, Neeladri Das	Self-Assembly of a [1+1] Ionic Hexagonal Macrocyclic and its Antiproliferative Activity	Frontiers in Chemistry	2018	6	-	87	93
Anupriya Baranwal, Ananya Srivastava, Pradeep Kumar, Vivek K. Bajpai, Pawan K. Maurya, Pranjal Chandra	Prospects of Nanostructure Materials and Their Composites as Antimicrobial Agents	Frontiers in microbiology	2018	9	-	422	432
S. Kumar, A. Kalita, R. Srivastava, L. Sahoo	Co-expression of Arabidopsis NHX1 and bar improves the tolerance to salinity, oxidative stress, and herbicide in transgenic mungbean	Frontiers in Plant Science	2017	8	1896	-	-
C. N. Gupta, V. Calhoun, J. Turner et al	Biclustered Independent Component Analysis (B-ICA) for Complex Biomarker and Subtype Identification from Structural Magnetic Resonance Images in Schizophrenia	Frontiers in Psychiatry (Methods)	2017	https://doi.org/10.3389/fpsy.2017.00179		-	-
M. C. Manjegowda, P. S. Gupta, A. M. Limaye	Hyper-methylation of the upstream CpG island shore is a likely mechanism of GPER1 silencing in breast cancer cells	Gene	2017	10.1016/j.gene.2017.03.006		-	-
S. Bordoloi, R. Hussain, V. K. Gadi, H. Bora, L. Sahoo, R. Karangat, A. Garg, S. Sreedeeep	Monitoring soil cracking and plant parameters for a mixed grass species	Géotechnique Letters	2018	8	-	-	01-Jul
P. Borah, P. Singh, L. Rangan, T. Karak, S. Mitra	Speciation and risk assessment of cadmium and chromium in soils: Can paper mill wastes intensify soil contamination and environmental risks?	Groundwater for Sustainable Development	2018	6	-	188	189
Ujjowol Barman, Gargi Mukhopadhyay, Namami Goswami, Siddhartha Sankar Ghosh, Paily P. Roy	Detection of Glutathione by Glutathione-S-Transferase- Nanoconjugate Ensemble Electrochemical Device	IEEE Transactions on NanoBioscience	2017	16	4	271	279
V. K. Mishra, R. Bajpai, R. Chaturvedi	An efficient and reproducible method for development of androgenic haploid plants from in vitro anther cultures of <i>Camellia assamica</i> ssp. <i>Assamica</i> (Masters)	In Vitro Cell and Developmental Biology	2017	53	-	239	248

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Ashutosh Gupta, Vikky Rajulapati, Debasish Das, Arun Goyal	Comparative analysis of bioethanol production involving saccharification by mixed recombinant clostridial enzymes using sugarcane leaves and kans grass as sustainable feed stocks from north-east India	Indian Journal of Biotechnology	2017	16	-	199	210
Eldho Abraham, Giri Nandagopal Mukunthan Sulochana, Bhuvaneshwari Soundarajan, Selvaraju Narayanasamy	Experimental Investigation on Microfluidic Reactive Extraction of Citric Acid Using Trioctylamine/1-Decanol System in Uniform and Nonuniform Circular Microchannels	Industrial & Engineering Chemistry Research	2017	38	56	10845	10855
Kartikeya Tiwari, Vikash Kumar Dubey	Leishmaniadonovaniaparaginase variants exhibit cytosolic localization	International Journal of biological macromolecules	2018	114	-	35	39
Adarsh Kumar Chiranjivi, Vikash Kumar Dubey	Dihydrolipoamide dehydrogenase from Leishmaniadonovani: New insights through biochemical characterization.	International Journal of biological macromolecules	2018	S0141-8130	17	34543	34549
S. Arun, N. A. Manikandan, K. Pakshirajan, G. Pugazhenth, M. B. Syiem	Cu (II) removal by Nostocmuscorum and its effect on biomass growth and nitrate uptake: A photobioreactor study	International Biodeterioration & Biodegradation	2017	119	-	111	117
V. Sinha, N. A. Manikandan, K. Pakshirajan, R. Chaturvedi	Continuous removal of Cr (VI) from wastewater by phytoextraction using Tradescantia pallida plant based vertical subsurface flow constructed wetland system	International Biodeterioration & Biodegradation	2017	119	-	96	103
Abshar Hasan, Gyan Waibhaw, Varun Saxena, Lalit M. Pandey	Nano-biocomposite scaffolds of chitosan, carboxymethyl cellulose and silver nanoparticle modified cellulose nanowhiskers for bone tissue engineering applications	International journal of biological macromolecules	2018	111	-	923	934
Ira Bhatnagar, Kuldeep Mahato, Kranthi Kiran Reddy Ealla, Amit Asthana, Pranjali Chandra	Chitosan stabilized gold nanoparticle mediated self-assembled gliP nanobiosensor for diagnosis of Invasive Aspergillosis	International journal of biological macromolecules	2017	110	-	449	456
Vanitha Selvarajan, Anil P Bidkar, Rajib Shome, Aditi Banerjee, Nidhi Chaubey, Siddhartha Sankar Ghosh, Pallab Sanpui	Studying in vitro phagocytosis of apoptotic cancer cells by recombinant GMCSF-treated RAW 264.7 macrophages	International Journal of Biological Macromolecules	2017	102	-	1138	1145

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Anupriya Baranwal, Ashutosh Kumar, A. Priyadarshini, Gopi Suresh Oggu, Ira Bhatnagar, Ananya Srivastava, Pranjal Chandra	Chitosan: An undisputed bio-fabrication material for tissue engineering and bio-sensing applications	International journal of biological macromolecules	2018	110	-	110	123
Ashish A. Prabhu, Anwesha Purkayastha, Bapi Mandal, Jadi Praveen Kumar, Biman B. Mandal, Venkata Dasu Veeranki	A novel reverse micellar purification strategy for histidine tagged human interferon gamma (hIFN- γ) protein from <i>Pichia pastoris</i>	International Journal of Biological Macromolecules	2018	107	-	2512	2514
Kedar Sharma, Inês Lobo Antunes, Vikky Rajulapati, Arun Goyal	Low resolution SAXS and comparative modeling based structure analysis of endo- β -1,4-xylanase a family 10 glycoside hydrolase from <i>Pseudopedobacter saltans</i> comb. nov.	International Journal of Biological Macromolecules	2018	112	-	1104	1114
Aruna Rani, Arun Dhillon, Kedar Sharma, Arun Goyal	Insights into the structure and substrate binding analysis of chondroitin AC lyase (PsPL8A) from <i>Pedobacter saltans</i>	International Journal of Biological Macromolecules,	2018	109	-	980	991
Bhagyashree Deka, Kusum Kumari Singh	Multifaceted Regulation of Gene Expression by the Apoptosis- and Splicing-Associated Protein Complex and Its Components	International Journal of Biological Sciences	2017	13	5	545	560
Nidhin Sreekumar, Amal J. Chennattusery, A. Mariya, N. Selvaraju	Anaerobic digester sludge as nutrient source for culturing of microalgae for economic biodiesel production	International Journal of Environmental Science and Technology	2018	DOI 10.1007/s13762-017-1491-z		1	8
B. Das, G. Selvaraj, S. Patra	An environmentally sustainable process for remediation of phenol polluted wastewater and simultaneous clean energy generation as by-product	International Journal of Environmental Science and Technology	2017	-	-	1	24
Prakash Kishore Hazam, Gaurav Jerath, Nitin Chaudhary, Vibin Ramakrishnan	Peptido-mimetic Approach in the Design of Syndiotactic Antimicrobial Peptides	International Journal of Peptide Research and Therapeutics	2017	doi:10.1007/s10989-017-9615-3		-	-
Prakash Kishore Hazam, Anjali Singh, Nitin Chaudhary, Vibin Ramakrishnan	Bactericidal Potency and Extended Serum Life of Stereo-Chemically Engineered Peptides Against <i>Mycobacterium</i>	International Journal of Peptide Research and Therapeutics	2018	doi:10.1007/s10989-018-9690-0		-	-
V. Sinha, K. Pakshirajan, N. A. Manikandan, R. Chaturvedi	Kinetics, biochemical and factorial analysis of chromium uptake in a multi-ion system by <i>Tradescantia pallida</i> (Rose) DR Hunt	International Journal of Phytoremediation	2017	19	11	1007	1016

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E. Nakkeeran, N. Selvaraju	Biosorption of chromium (VI) in aqueous solutions by chemically modified Strychnine tree fruit shell.	International Journal of Phytoremediation	2017	19	12	1065	1076
V. Saxena, A. Hasan, S. Sharma, L. M. Pandey	Edible oil nanoemulsion: An organic nanoantibiotic as a potential biomolecule delivery vehicle	International Journal of Polymeric Materials and Polymeric Biomaterials	2017	10.1080/00914037.2017.1332625		-	-
A. Hasan, G. Waibhaw, S. Tiwari, K. Dharmalingam, I. Shukla, L. M. Pandey	Fabrication and characterization of chitosan, polyvinylpyrrolidone, and cellulose nanowhiskers nanocomposite films for wound healing drug delivery application	J Biomed Mater Res Part A	2017	105	9	2391	2404
Chandra Shekhar Kumar, Sachin Kumar	Synonymous codon usage of genes in polymerase complex of Newcastle disease virus	Journal of Basic Microbiology	2017	-	584	1	6
V. M. Vidhya, Vikash Kumar Dubey, Karthe Ponnuraj	Identification of two natural compound inhibitors of Leishmania donovani Spermidine Synthase (SpdS) through molecular docking and dynamic studies	Journal of Biomolecular Structure and Dynamics	2017	doi: 10.1080/07391102.2017.1366947		-	-
Atul Kumar, Trishna Anand, Jina Bhattacharyya, Amit Sharma, Bithiah Grace Jaganathan	K562 chronic myeloid leukemia cells modify osteogenic differentiation and gene expression of bone marrow stromal cells	Journal of Cell Communication and Signaling	2017	-	-	1	10
Augustine Amalraj, K. Rakesh Varma, J. H. Jacob, Chandradhara Divya, Ajaikumar B. Kunnumakkara, Sidney J. Stohs, Sreeraj Gopi	A Novel Highly Bioavailable Curcumin Formulation Improves Symptoms and Diagnostic Indicators in Rheumatoid Arthritis Patients: A Randomized, Double-Blind, Placebo-Controlled, Two-Dose, Three-Arm, and Parallel-Group Study	Journal of Medicinal Food	2017	10	-	1022	1030
Lavita Sarma, N. Aomoa, Trinayan Sarmah, S. Sarma, A. Srinivasan, G. Sharma, Ajay Gupta, V. R. Reddy, B. Satpati, D. N. Srivastava, S. Deka, L. M. Pandey, M. Kakati	Synthesis of finest superparamagnetic carbon-encapsulated magnetic nanoparticles by a plasma expansion method for biomedical applications	Journal of Alloys and Compounds	2018	749	-	768	775
A. D. Khwairakpam, Y. D. Damayanti, A. Deka, J. Monisha, N. K. Roy, G. Padmavathi, A. B. Kunnumakkara	Acorus calamus: a bio-reserve of medicinal values	Journal of basic and clinical physiology and pharmacology	2018	29	2	107	122
S. J. Deka, A. Roy, D. Manna, Vishal Trivedi	Integrating Virtual Screening and Biochemical Experimental approach to identify potential anti-cancer agents from Drug Databank	Journal of Bioinformatics and Computational Biology	2018	DOI: 10.1142/S0219720018500026		-	-

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Chinnapaka Somaiah, Atul Kumar, Renu Sharma, Amit Sharma, Trishna Anand, Jina Bhattacharyya, Damodar Das, Sewali Deka Talukdar, Bithiah Grace Jaganathan	Mesenchymal stem cells show functional defect and decreased anti-cancer effect after exposure to chemotherapeutic drugs	Journal of Biomedical Science	2018	25	5	-	-
A. Kumar, D. Basu, P. Satpati	Structure Based Energetics of Stop Codon Recognition by Eukaryotic Release Factor	Journal of chemical information and modeling	2017	9	57	2321	2328
S. Sevda, I. A. Reesh	Energy Production in Microbial Desalination Cells and Its Effects on Desalination	Journal of Energy and Environmental Sustainability	2017	3	-	53	58
Vibha Sinha, Kannan Pakshirajan, Rakhi Chaturvedi	Chromium tolerance, bioaccumulation and localization in plants: An overview	Journal of Environmental Management	2017	206	-	715	730
Surajbhan Sevda, Ibrahim Abu Reesh	Improved salt removal and power generation in a cascade of two hydraulically connected up-flow microbial desalination cells	Journal of Environmental Science and Health, Part A	2017	-	-	1	12
D. J. S. John Mary, M. C. Manjegowda, A. Kumar, A. Dutta, A. M. Limaye	The role of cystatin A in breast cancer and its functional link with ER α	Journal of Genetics and Genomics	2017	44	12	593	597
Shreya Mehrotra, Samit Kumar Nandi, Biman B. Mandal	Stacked Silk-Cell Monolayers as a Biomimetic Three Dimensional Construct for Cardiac Tissue Reconstruction	Journal of Materials Chemistry B	2017	5	-	6325	6338
Upashi Goswami, Srestha Basu, Anumita Paul, Siddhartha Sankar Ghosh, Arun Chattopadhyay	White light emission from gold nanoclusters embedded bacteria	Journal of Materials Chemistry C	2017	5	47	12360	12364
Sai Das, Soumen K. Maiti	PSII as an in vivo molecular catalyst for the production of energy rich Hydroquinones - A new approach in renewable energy	Journal of Photochemistry & Photobiology, B: Biology	2018	180	-	134	139
Jagan Mohan Rao Tingirikari, Aruna Rani, Arun Goyal	Synthesis of superparamagnetic nanoparticles and coating with dextran produced by dextransucrase of Weissella cibaria JAG8	Journal of Polymers and the Environment	2017	25	-	569	577

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Arun Dhillon, Arun Goyal	Structure modeling and characterization of a rhamnogalacturonan lyase (CtRGL) from <i>Clostridium thermocellum</i>	Journal of Proteins and Proteomics	2017	8(4)	-	183	194
Dimple Chouhan, Janani Guru, Bijayashree Chakraborty, Samit Nandi, Biman B. Mandal	Functionalized PVA-Silk blended nanofibrous mats promote diabetic wound healing via regulation of extracellular matrix and tissue remodeling	Journal of Tissue Engineering and Regenerative Medicine	2018	12	-	e1559	1570
A. B. Kunnumakkara, B. L. Sailo, K. Banik, C. Harsha, S. Prasad, S. C. Gupta, A. C. Bharti, B. B. Aggarwal	Chronic diseases, inflammation, and spices: how are they linked?	Journal of Translational Medicine	2018	16	1	14	-
P. Kumar, S. K. Barari, M. K. Tripathi, R. K. Kumari, M. Kumar	Foot and Mouth Disease: An Economically Devastating Disease of the livestock	Journal of Veterinary Sciences	2018	4	1	9	12
L. Goswami, R. V. Kumar, N. A. Manikandan, K. Pakshirajan, G. Pugazhenth	Simultaneous polycyclic aromatic hydrocarbon degradation and lipid accumulation by <i>Rhodococcus opacus</i> for potential biodiesel production	Journal of Water Process Engineering	2017	17	-	1	10
Ashish Anand Prabhu, Bapi Mandal, Veeranki Venkata Dasu	Medium optimization for high yield production of extracellular human interferon- γ from <i>Pichia pastoris</i> : a statistical optimization and neural network-based approach	Korean journal of chemical engineering	2017	34	4	1109	1121
Kumar Sanjay, Ashish Prabhu Anand, Venkata Dasu Veeranki, Pakshirajan Kannan	Kinetics of growth on dual substrates, production of novel glutaminase-free L-asparaginase and substrates utilization by <i>Pectobacterium carotovorum</i> MTCC 1428 in a batch bioreactor	Korean journal of chemical engineering	2017	34	1	118	126
Sushma Chityala, Ashish A. Prabhu, V. Venkata Dasu	Enhanced production of glutaminase free L-asparaginase II by <i>Bacillus subtilis</i> WB800N through media optimization	Korean journal of chemical engineering	2017	34	11	2901	2915
Abshar Hasan, Varun Saxena, Lalit M. Pandey	Surface Functionalization of Ti6Al4V via Self-assembled Monolayers for Improved Protein Adsorption and Fibroblast Adhesion	Langmuir	2018	34 (11)	-	3494	3506
N. Singh, P. Saravanan, M. S. Thakur, S. Patra	Development of Xanthine Based Inhibitors Targeting Phosphodiesterase 9A	Letters in Drug Design & Discovery	2017	14	10	1122	1137
Sudipta Ghosh, Rajesh K. Singh, Vikash Kumar Dubey, Latha Rangan	Antileishmanial Activity of Labdane Diterpenes Isolated from <i>Alpinia nigra</i> Seeds	Letters in Drug Design and Discovery	2017	14	-	119	-

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Rwivoo Baruah, Barsha Deka, Arun Goyal	Purification and characterization of dextranase from <i>Weissella cibaria</i> RBA12 and its application in in vitro synthesis of prebiotic oligosaccharides in mango and pineapple juices	LWT - Food Science and Technology	2017	84	-	449	456
Abhishek Roy, Varun Saxena, Lalit M. Pandey	3D printing for cardiovascular tissue engineering: a review	Materials Technology	2018	https://doi.org/10.1080/10667857.2018.1456616		-	-
Varun Saxena, Abshar Hasan, Lalit M Pandey	Effect of Zn/ZnO integration with hydroxyapatite: a review	Materials Technology	2018	33 (2)		79	92
Saurav Paul, Ashalata Roy, Suman Jyoti Deka, Subhankar Panda, Gopal Narayan Srivastava, Vishal Trivedi, Debasis Manna	Synthesis and evaluation of oxindoles as promising inhibitors to the immunosuppressive enzyme indoleamine 2, 3-Dioxygenase 1	MedChemMed	2017	8	8	1640	1654
B. Saha, H. Krishna Kumar, M. P. Borgohain, R. P. Thummer	Prospective applications of Induced Pluripotent Stem Cells in Military Medicine	Medical Journal Armed Forces India	2018	-	-	1	8
Rahi Adhikari, Deepak Singh, Monika Chandravanshi, Angshu Dutta, Shankar Prasad Kanaujia	UgpB, a periplasmic component of the UgpABCE ATP-binding cassette transporter, predominantly follows the sec translocation pathway	Meta Gene	2017	13	-	129	139
S. Basak, H. Krishnamurthy, L. Rangan	Genome size variation among 3 selected genera of Zingiberoideae	Meta Gene	2018	15	-	42	49
B. Nath, A. Gupta, S. Khan, S. Kumar	Enhanced cytopathic effect of Japanese encephalitis virus strain SA14-14-2: probable association of mutation in amino acid of its envelope protein	Microbial Pathogenesis	2017	-	111	187	192
K. Ganar, M. Shah, B. Kamdi, N. Kurkure, S. Kumar	Molecular characterization of chicken anemia virus outbreaks in Nagpur province, India from 2012-2015	Microbial Pathogenesis	2017	-	102	113	119
Ananya Barman Dibakar Gohain Utpal Bora, Ranjan Tamuli	Phospholipases play multiple cellular roles including growth, stress tolerance, sexual development, and virulence in fungi	Microbiological Research	2018	https://doi.org/10.1016/j.micres.2017.12.012		-	-
S. Mukherjee, A. Ramesh	Dual label flow cytometry-based host cell adhesion assay to ascertain the prospect of probiotic <i>Lactobacillus plantarum</i> in niche-specific antibacterial therapy	Microbiology	2017	163	12	1822	1834

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P. Jain, B. Chakma, N. Singh, S. Patra, P. Goswami	Metal–DNA Interactions Improve signal in High-Resolution Melting of DNA for Species Differentiation of Plasmodium Parasite	Molecular Biotechnology	2017	59	6	179	191
A. Sadhukhan, Y. Kobayashi, Y. Nakano, S. Iuchi, M. Kobayashi, L. Sahoo, H. Koyama	Genome-wide association study reveals that the aquaporin NIP1; 1 contributes to variation in hydrogen peroxide sensitivity in Arabidopsis thaliana	Molecular Plant	2017	-	-	-	-
Bandhan Chatterjee, Asif Raza, Siddhartha Sankar Ghosh	Developing single-entity theranostic: drug-based fluorescent nanoclusters with augmented cytotoxicity	Nanomedicine	2017	13	3	283	295
A. P. Bidkar, P. Sanpui, S. S. Ghosh	Efficient induction of apoptosis in cancer cells by paclitaxel-loaded selenium nanoparticles	Nanomedicine (Lond).	2017	12	21	2641	2651
Kartikeya Tiwari, Vikash Kumar Dubey	Fresh insights into the pyrimidine metabolism in the trypanosomatids	Parasites and Vectors	2018	11	1	87	0
S. Ghatak, S. Lalnunhlumi, F. Lalrohli, J. L. Pautu, J. Zohmingthanga, A. B. Kunnumakkara, N. Senthil Kumar	Novel AKT1 mutations associated with cell-cycle abnormalities in gastric carcinoma	Personalized Medicine	2017	14	2	-	-
B. L. Sailo, K. Banik, G. Padmavathi, M. Javadi, D. Bordoloi, A. B. Kunnumakkara	Tocotrienols: The promising analogues of vitamin E for cancer therapeutics	Pharmacological Research	2018	S1043-6618	17	31460	31463
Ranbhor Ranjit, Anil Kumar, Kirti Patel, Vibin Ramakrishnan, Susheel Durani	Peptido-mimetic Approach evolution of stereo-chemically randomized protein foldamers	Physical biology	2018	doi:10.1088/1478-3975/aaac9a		-	-
S. C. Gupta, S. Prasad, A. K. Tyagi, A. B. Kunnumakkara, B. B. Aggarwal	Neem (Azadirachta indica): An indian traditional panacea with modern molecular basis	Phytomedicine	2017	34	-	14	20
S. Gopi, J. Jacob, K. Varma, S. Jude, A. Amalraj, C. A. Arundhathy, R. George, T. R. Sreeraj, C. Divya, A. B. Kunnumakkara, S. J. Stohs	Comparative Oral Absorption of Curcumin in a Natural Turmeric Matrix with Two Other Curcumin Formulations: An Open-label Parallel-arm Study	Phytother Research	2017	12	-	1883	1891
P. Kumar, V. Srivastava, R. Chaturvedi, D. Sundar, V. S. Bisaria	Elicitor enhanced production of protoberberine alkaloids from in vitro cell suspension cultures of Tinosporacordifolia (Willd.) Miers ex Hook. F. &Thoms	Plant Cell Tissue and Organ Culture	2017	130	2	417	426

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D. Singh, D. Kabiraj, P. Sharma, H. Chetia, P. V. Mosahari, K. Neog, U. Bora	The mitochondrial genome of Muga silkworm (<i>Antheraea assamensis</i>) and its comparative analysis with other lepidopteran insects	PloS One	2017	12	11	1	23
S. Kumar, B. Tanti, B. L. Patil, S. K. Mukherjee, L. Sahoo	RNAi-derived transgenic resistance to Mungbean yellow mosaic India virus in cowpea	PLoS One	2017	12	10	-	-
Bibhas K. Bhunia, David Kaplan, Biman B. Mandal	Silk-Based Multilayered Angle-Ply Annulus Fibrosus Construct to Recapitulate Form and Function of the Intervertebral Disc.	PNAS	2018	115	-	477	482
A. Gupta, N. Mulchandani, M. Shah, S. Kumar, V. Katiyar	Functionalized chitosan mediated stereocomplexation of poly (lactic acid): Influence on crystallization, oxygen permeability, wettability and biocompatibility behavior	Polymers	2017	doi.org/10.1016/j.polymer.2017.12.064		-	-
Vibhu Sharma, R. Vinoth Kumar, Kannan Pakshirajan, G. Pugazhenth	Integrated adsorption-membrane filtration process for antibiotic removal from aqueous solution	Powder Technology	2017	321	-	259	269
A. A. Prabhu, V. Venkata Dasu	Dual-substrate inhibition kinetic studies for recombinant human interferon gamma producing <i>Pichia pastoris</i>	Preparative Biochemistry and Biotechnology	2017	47	10	953	962
S. L. Gavya, N. Arora, S. S. Ghosh	Retention of functional characteristics of glutathione-S-transferase and lactate dehydrogenase-A in fusion protein	Preparative Biochemistry and Biotechnology	2017	1	-	1	8
A. Ashish Prabhu, Sushma Chityala, Yachna Garg, V. Venkata Dasu	Reverse micellar extraction of papain with cationic detergent based system: An optimization approach	Preparative biochemistry and biotechnology	2017	47	3	236	244
Sanjay Kumar, Ashish A. Prabhu, V. Venkata Dasu, Kannan Pakshirajan	Batch and fed-batch bioreactor studies for the enhanced production of glutaminase-free L-asparaginase from <i>Pectobacterium carotovorum</i> MTCC 1428	Preparative biochemistry and biotechnology	2017	47	1	74	80
Rajat Pandey, Nitin Kumar, Ashish A. Prabhu, Venkata Dasu Veeranki	Application of medium optimization tools for improving recombinant human interferon gamma production from <i>Kluyveromyces lactis</i>	Preparative biochemistry and biotechnology	2018	48	3	279	287
Rocktotpal Konwarh, Bibhas K. Bhunia, Biman B. Mandal	Opportunities and Challenges in Exploring Indian Nonmulberry Silk for Biomedical Application	Proceedings of the Indian National Science Academy	2017	83	1	85	101

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A. Punetha, K. N. R. Yoganand, S. Nimkar, B. Anand	Cutting it Right: Plasticity and Strategy of CRISPR RNA Specific Nucleases	Proceedings of the Indian National Science Academy	2018	doi: https://doi.org/10.16943/ptinsa/2017/49241		-	-
R. Kumar, V. Kumar, S. Kumar	Production of recombinant Erns protein of classical swine fever virus and assessment of its enzymatic activity: A recombinant Newcastle disease virus-based approach	Process Biochemistry	2017	66	-	113	119
Kedar Sharma, Inês Lobo Antunes, Vikky Rajulapati, Arun Goyal	Molecular characterization of a first endo-acting β-1, 4-xylanase of family 10 glycoside hydrolase (PsGH10A) from Pseudopedobacter saltans comb. nov.	Process Biochemistry	2018	doi.org/10.1016/j.procbio.2018.03.025		-	-
Seltanna Chalane, C´edric Delattre, Philippe Michaud, Andr´e Lebert, Christine Gardarin, Damini Kothari, Catherine Creuly, Arun Goyal, Ale´s Strancar, Guillaume Pierre	Optimized endodextranase-epoxy CIM® Disk reactor for the continuous production of molecular weight-controlled prebiotic isomalto-oligosaccharides	Process Biochemistry	2017	58	-	105	113
Y. D. Singh, P. Mahanta, U. Bora	Comprehensive characterization of lignocellulosic biomass through proximate,ultimate and compositional analysis for bioenergy production	Renewable Energy	2016	103	-	490	500
L. Goswami, M. T. Namboodiri, R. V. Kumar, K. Pakshirajan, G. Pugazhenth	Biodiesel production potential of oleaginous Rhodococcusopacus grown on biomass gasification wastewater	Renewable Energy	2017	105	-	400	406
Gaurav Pandey, Jahnu Saikia, Sajitha Sasidharan, Deep C Joshi, Subhash Thota, Harshal B. Nemade, Nitin Chaudhary, Vibin Ramakrishnan	Modulation of Peptide Based Nano-Assemblies with Electric and Magnetic Fields	Scientific Reports	2017	7	-	2726	9
Karabi Saikia, Yalavarthi Durga Sravani, Vibin Ramakrishnan, Nitin Chaudhary	Highly potent antimicrobial peptides from Nterminal membrane-binding region of E. coli MreB	Scientific Reports	2017	7	-	42994	9
Atul Kumar, Jina Bhattacharyya, Bithiah Grace Jaganathan	Adhesion to stromal cells mediates imatinib resistance in chronic myeloid leukemia through ERK and BMP signaling pathways	Scientific Reports	2017	7	1	-	-

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Ritesh Kumar, Kartikeya Tiwari, Vikash Kumar Dubey	Methionine aminopeptidase 2 is a key regulator of apoptotic like cell death in Leishmania donovani	Scientific Reports	2017	7	-	95	-
Sajitha Sasidharan, P. C. Shyni, Nitin Chaudhary, Vibin Ramakrishnan	Single Crystal Organic Nanofowers	Scientific Reports	2017	7	-	17335	-
Prerana Gogoi, Shankar Prasad Kanaujia	A presumed homologue of the regulatory subunits of eIF2B functions as ribose-1,5-bisphosphate isomerase in Pyrococcus horikoshii OT3	Scientific Reports	2018	8	-	1891	1905
V. Rai, M. Muthuraj, M. N. Gandhi, D. Das, S. Srivastava	Real-time iTRAQ-based proteome profiling revealed the central metabolism involved in nitrogen starvation induced lipid accumulation in microalgae	Scientific Reports	2017	7	-	45732	-
Asif Raza, Archita Ghoshal, S. Chockalingam, Siddhartha Sankar Ghosh	Connexin-43 enhances tumor suppressing activity of artesunate via gap junction-dependent as well as independent pathways in human breast cancer cells	Scientific Reports	2017	7	-	-	-
N. Awasthee, V. Rai, S. Chava, P. Nallasamy, A. B. Kunnumakkara, A. Bishayee, S. C. Chauhan, K. B. Challagundla, S. C. Gupta	Targeting I κ B kinases for cancer therapy	Seminars in Cancer Biology	2018	S1044-579X	17	30046	30049
R. Dalapati, S. N. Balaji, V. Trivedi, L. Khamari, S. Biswas	A dinitro-functionalized Zr (IV)-based metal-organic framework as colorimetric and fluorogenic probe for highly selective detection of hydrogen sulphide	Sensors & Actuators: B. Chemical	2017	245	-	1039	1045
Rajat Pandey, Ashish Anand Prabhu, Veeranki Venkata Dasu	Purification of recombinant human interferon gamma from fermentation broth using reverse micellar extraction: A process optimization study	Separation Science and Technology	2018	53	3	487	495
C. Dey, G. Narayan, H. Krishna Kumar, M. P. Borgohain, N. Lenka, R. P. Thummer	Cell-Penetrating Peptides as a Tool to Deliver Biologically Active Recombinant Proteins to Generate Transgene-Free Induced Pluripotent Stem Cells	Stud Stem Cells Res Ther	2017	3	1	6	15
R. Deb, S. Nagotu	Versatility of peroxisomes: an evolving concept	Tissue & Cell	2017	49	2	209	226
Y. .P Singh, M. Adhikary, N. Bhardwaj, B. K. Bhunia, S. Mehrotra, Biman B. Mandal	Bioinspired Three Dimensional Construct with Silk Fiber Reinforcement for Regeneration of Load Bearing Soft Tissues	Tissue Engineering Part A	2017	23	-	S102	S102
Prerak Gupta, Biman B. Mandal	Osteoinductive and Proangiogenic Bioactive Glass Silk Composite Scaffolds towards Resorbable and Vascularized Bone Grafts	Tissue Engineering Part A	2017	23	-	S89	S89

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S. Mehrotra, Biman B. Mandal	In Vitro Fabrication of Functional Anisotropic 3D Constructs using Silk-Cardiomyocyte Monolayers	Tissue Engineering Part A	2017	23	-	S61	S62
P. Gogoi, K. Ganar, S. Kumar	Avian paramyxovirus: A brief review	Transboundary and Emerging Diseases	2017	-	64	53	67
A. Sett, B. B. Borthakur, J. Dev Sharma, A. C. Kataki, U. Bora	DNA aptamer probes for detection of estrogen receptor α positive carcinomas	Translational Research	2017	183	-	104	120
Soumyadeep Chakraborty, Aruna Rani, Arun Goyal	Pectic oligosaccharides produced from pectin extracted from waste peels of Citrus limetta using recombinant endo-pectate lyase (PL1B) inhibit colon cancer cells	Trends in Carbohydrate Research	2018	1	10	-	-
P. Kumar, A. Dey, A. Kumar, P. K. Ray, P. C. Chandran, R. K. Kumari, M. Kumar	The effects of PPR on the reproductive health of Black Bengal goats and the possible role played by oxidative stress	Tropical Animal Health and Production	2018	DOI:10.1007/s11250-018-1578-7		-	-
N. N. Barman, B. Choudhury, V. Kumar, M. Koul, S. M. Gogoi, E. Khatoon, A. Chakraborty, P. Basumastary, B. Barua, T. Rahman, S. K. Das, S. Kumar	Incidence of elephant endotheliotropic herpesvirus in Asian elephants in India	Veterinary Microbiology	2017	-	-	-	-
S. Lekharu, U. Bora, K. Basumatary	In vitro Study of Yograj Churna on Antioxidant Activity	World Academy of Science, Engineering and Technology, International Journal of Medical and Health Sciences	2018	5	3	-	-

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Narendra Naik Deshavath, Mood Mohan, Venkata Dasu Veeranki, Vaibhav V. Goud, Srinivasa Rao Pinnamaneni, Tamal Banerjee	Dilute acid pretreatment of sorghum biomass to maximize the hemicellulose hydrolysis with minimized levels of fermentative inhibitors for bioethanol production	3 Biotech	2017	7	-	139	-
Bolleddu Ravi, Snigdha Chakraborty, Mitradi Bhattacharjee, Partho Sarathi Gooh Pattader, Dipankar Bandyopadhyay	Pattern Directed Ordering of Spin-dewetted Liquid Crystal Micro or Nanodroplets as Pixelated Light Reflectors and Locomotives	ACS Applied Materials and Interfaces	2017	9	1066	-	-
Tamanna Bhuyan, Amit Kumar Singh, Deepanjalee Dutta, Aynur Unal, Sidhdhartha Sankar Ghosh, Dipankar Bandyopadhyay	Magnetic Field Guided Chemotaxis of iMushbots for Targeted Anticancer Therapeutics	ACS Biomaterials Science & Engineering	2017	3	1627	-	-
Melakuu Tesfaye, Rahul Patwa, Prodyut Dhar, Vimal Katiyar	Nano-Silk Grafted Poly (lactic acid) Films: Influence of Crosslinking on Rheology Reprocessing and Thermal Stability	ACS Omega	2017	DOI:10.1021/ acsomega.7b01005		7071	7084
Arvind Gupta, Arbind Prasad, Neha Mulchandani, Manisha Shah, Mamilla Ravi Sankar, Sachin Kumar, Vimal Katiyar	Multifunctional Nano-Hydroxyapatite promoted Toughened High Molecular Weight Stereocomplex Poly(lactic acid) based Bionanocomposite for both 3D Printed Orthopedic Implants and High-Temperature Engineering Applications	ACS Omega	2017	DOI: 10.1021/ acsomega.7b00915.		4039	4052
Debashis Kundu, Shankar Chakma, G. Pugazhenth, Tamal Banerjee	Ionic Liquid -Facilitated Dehydrogenation of tert-Butylamine Borane	ACS Omega	2018	DOI: 10.1021/acso mega.7b01781 2018		-	-
Rima Biswas, Pallab Ghosh, Tamal Banerjee, Sk. Musharaf Ali, Ashish Kumar Singha Deb	Interfacial Behavior of Cs+, K+, Na+, and Rb+ Extraction in the Presence of Dibenzo-18-Crown-6 from the Nitrobenzene–Water Biphasic System: Experimental, Quantum Chemical, and Molecular Dynamic Studies	ACS Omega	2018	3	-	1663	1674
Medha Mili, Arvind Gupta, Monika, Vimal Katiyar	Designing of Poly(l-lactide)–Nicotine Conjugates: Mechanistic and Kinetic Studies and Thermal Release Behavior of Nicotine	ACS OMEGA	2017	2	9	6131	6142

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Rahul Ramdas Ramteke, Nanda Kishore	Effect of Velocity Slip on Settling of Assemblages of Spherical Particles in Power-law Liquids at Low to Moderate Reynolds Numbers	Acta Mechanica	2017	228	-	1871	1889
Maneesh Kumar Poddar, Sushobhan Pradhan, Vijayanand S. Moholkar, Mohammad Arjmand, Uttandaraman Sundararaj	Ultrasound-assisted synthesis and characterization of polymethyl methacrylate/reduced graphene oxide nanocomposites	AIChE Journal	2018	64	2	763	787
Sandip K. Pawar, Amit V. Mahulkar, Kuldeep Roy, Vijananand S. Moholkar, Aniruddha B. Pandit	Sonochemical effect induced by hydrodynamic cavitation: Comparison of venturi/orifice flow geometries	AIChE Journal	2017	63	10	4705	4716
Bhaskar Jyoti Medhi, Vipin Agrawal, Anugrah Singh	Experimental investigation of particle migration in suspension flow through bifurcating microchannels	AIChEJ	2018	-	-	-	-
Gajanand Yadav, Subrata Kumar Majumder	Behaviour of rheology of nanofluid during convection in pipe	American Journal of Nanotechnology	2017	7 (1)	-	1	12
Kelothu Suresh, R. Vinoth Kumar, Manish Kumar, M. Jeyapriya, R. Anbarasan, G. Pugazhenth	Sonication Assisted Synthesis of Polystyrene (PS)/ Organoclay Nanocomposites: Influence of Clay Content	Applied Nanoscience	2017	7	5	215	223
P. Kamalanathan, L. Kalo, H. J. Pant, Rajesh K. Upadhyay	Effect of dynamic bias on accuracy of radioactive particle tracking (RPT) technique at different data acquisition frequencies	Applied Radiation and Isotopes	2017	128	-	13	21
G. Srivastava, Nishchal, V. V. Goud	Salinity induced lipid production in microalgae and cluster analysis	Bio resource Technology	2017	-	-	244	252
N. K. Mund, D. Dash, C. R. Barik, V. V. Goud, L. Sahoo, P. Mishra, N. R. Nayak	Evaluation of efficient glucose release using sodium hydroxide and phosphoric acid as pretreating agents from the biomass of Sesbania grandiflora (L.) Pers.: a fast growing tree legume	Bio resource Technology	2017	236	-	97	105
N. N. Deshavath, V. V. Dasu, V. V. Goud, P. S. Rao	Development of dilute sulfuric acid pretreatment method for the enhancement of xylose fermentability	Biocatalysis and Agricultural Biotechnology	2017	-	-	224	230
Akhilesh Kumar Pal, Vimal Katiyar	Theoretical and analyzed data related to thermal degradation kinetics of poly (L-lactic acid)/chitosan-grafted-oligo L-lactic acid (PLA/CH-g-OLLA)	Bionanocomposite Films, Data in Brief	2017	10	-	304	311

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S. Pradhan, A. J. Borah, M. K. Poddar, P. K. Dikshit, L. Rohidas, V. S. Moholkar	Microbial production, ultrasound-assisted extraction and characterization of biopolymer polyhydroxybutyrate (PHB) from terrestrial (<i>P. hystrophorus</i>) and aquatic (<i>E. crassipes</i>) invasive weeds	Bioresource Technology	2017	242	-	304	310
S. Sarma, A. Anand, V. K. Dubey, V. S. Moholkar	Metabolic flux network analysis of hydrogen production from crude glycerol by <i>Clostridium pasteurianum</i>	Bioresource Technology	2017	242	-	169	177
P. K. Dikshit, S. K. Padhi, V. S. Moholkar	Process optimization and analysis of product inhibition kinetics of crude glycerol fermentation for 1,3-Dihydroxyacetone production.	Bioresource Technology	2017	244	1	362	371
A. H. Batghare, N. Singh, V. S. Moholkar	Investigations in Ultrasound-Induced Enhancement of Astaxanthin Production by Wild Strain <i>Phaffiarhodozyma</i> MTCC 7536	Bioresource Technology	2018	254	-	166	173
P. K. Dikshit, G. J. Kharmawlong, V. S. Moholkar	Investigations in sonication-induced intensification of crude glycerol fermentation to dihydroxyacetone by free and immobilized <i>Gluconobacteroxydans</i>	Bioresource Technology	2018	256	-	302	311
R. K. Mishra, K. Mohanty	Pyrolysis kinetics and thermal behavior of waste sawdust biomass using thermogravimetric analysis	Bioresource Technology	2018	251	-	63	74
Belachew Zegale Tizazu, Vijayanand S. Moholkar	Kinetic and thermodynamic analysis of dilute acid hydrolysis of sugarcane bagasse	Bioresource Technology	2018	250	-	197	203
Mitradip Bhattacharjee, Harshal Nemade, Dipankar Bandyopadhyay	Nano-Enabled Paper Humidity Sensor for Mobile Based Point-of-Care Lung Function Monitoring	Biosensors & Bioelectronics	2017	94	544	-	-
R. K. Das, S. Saha, Ch. V. Rao, A. S. Giri, V. V. Goud, A. K. Golder	Bio-inspired AgNPs, multilayers reduced graphene oxide and graphite nanocomposite for electrochemical H ₂ O ₂ sensing	Bulletin of Materials Science	2018	-	-	-	-
Nayan Mani Das, Sunny Kumar, Dipankar Bandyopadhyay	UV-Ozone Mediated Miniaturization of Dewetted Polymeric Nanostructures on Graphene-Oxide-flakes for Enhanced Raman Scattering	Carbon	2017	121	-	612	624
Suman Saha, Chandan Das	A lab-scale spinning basket membrane module for the assessment of Humic acids ultrafiltration with effect of sonication on membrane fouling	Chemical Eng. Comm.	2018	DOI: 10.1080/00986445.2018.1457029		-	-

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B. K. Goshika, S. K. Majumder	Entrainment and holdup of gas-liquid-liquid dispersion in an ejector-induced downflow gas-liquid-liquid contactor	Chemical Engineering & Processing: Process Intensification	2018	125	-	112	123
S. K. Mondal, P. Saha	Separation of hexavalent chromium from industrial effluent through liquid membrane using environmentally benign solvent: A study of experimental optimization through response surface methodology	Chemical Engineering Research and Design	2018	132	-	564	583
Ritesh S. Malani, Shubham Patil, Kuldeep Roy, Sankar Chakma, Arun Goyal, Vijayanand S. Moholkar	Mechanistic analysis of ultrasound-assisted biodiesel synthesis with Cu ₂ O catalyst and mixed oil feedstock using continuous (packed bed) and batch (Slurry) reactors	Chemical Engineering Science	2017	170	-	743	755
A. M. Verma, N. Kishore	Production of benzene from 2-hydroxybenzaldehyde by various reaction pathways using IRC calculations within a DFT framework	Chemistry Select	2017	2	-	1556	1564
P. Saxena, B. Velaga, N. R. Peela	Ionic Liquid-Encapsulated Zeolite Catalysts for the Conversion of Glucose to 5-Hydroxymethylfurfural	Chemistry Select	2017	DOI:10.1002/slct.201701955		10379	10386
A. M. Verma, K. Agrawal, H. D. Kawale, N. Kishore	Production of Toluene by Decomposition of 2-Hydroxy-6-methylbenzaldehyde: A DFT Study	ChemistrySelect	2018	DOI: 10.1002/slct.201702339		-	-
Kibrom Alebel Gebru, Chandan Das	Removal of chromium (VI) ions from aqueous solutions using amine-impregnated TiO ₂ nanoparticles modified cellulose acetate membranes	Chemosphere	2018	191	-	673	684
Kibrom AlebelGebru and Chandan Das	Effects of solubility parameter differences among PEG, PVP and CA on the preparation of ultrafiltration membranes: Impacts of solvents and additives on morphology, permeability and fouling performances	Chi. J. Chem. Eng.	2017	25	-	911	923
R. Saha, R. V. S. Uppaluri, P. Tiwari	Effect of mineralogy on the adsorption characteristics of surfactant—Reservoir rock system	Colloids and Surfaces A: Physicochemical and Engineering Aspects	2017	531	-	121	132
Sudip Das, Prince Kumar Baranwal, R. Prasanna Venkatesh	Effect of cations on carbon steel corrosion in chloride media	Corrosion Reviews	2018	-	-	-	-
K. Samal, C. Das, K. Mohanty	Eco-friendly biosurfactant saponin for the solubilization of cationic and anionic dyes in aqueous system	Dyes and Pigments	2017	140	-	100	108

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Kanchapogu Suresh, G. Pugazhenth	Cross Flow Microfiltration of Oil-Water Emulsions using Clay Based Ceramic Membrane Support and TiO ₂ Composite Membrane	Egyptian Journal of Petroleum	2017	26	3	679	694
R. K. Das, A. K. Golder	Co ₃ O ₄ spinel nanoparticles decorated graphite electrode: Bio-mediated synthesis and electrochemical H ₂ O ₂ sensing	Electrochimica Acta	2017	251	-	415	426
K. K. Bhatluri, M. S. Manna, A. K. Ghoshal, P. Saha	Separation of cadmium and lead from wastewater using supported liquid membrane integrated with in-situ electrodeposition	Electrochimica Acta	2017	299	-	1	7
Joydip Chaudhuri, Seim Timung, Chola Bhargava Dandamudi, Tapas Kumar Mandal, Dipankar Bandyopadhyay	Discrete electric field mediated droplet splitting in microchannels: Fission, Cascade, and Rayleigh modes	Electrophoresis	2017	38	2	278	286
Seim Timung, Joydip Chaudhuri, Manas Pratim Borthakur, Tapas K. Mandal, Gautam Biswas, Dipankar Bandyopadhyay	Electric field mediated spraying of miniaturized droplets inside microchannel	Electrophoresis	2017	38	11	1450	1457
Geeta Kumari, Prabu Vairakannu	CO ₂ -air based two stage gasification of low ash and high ash Indian coals in the context of underground coal gasification	Energy	2018	143	-	822	832
V. B. Borugadda, V. V. Goud	Long-term storage stability of epoxides derived from vegetable oils and their methyl esters	Energy & Fuels	2018	32	3	3428	3435
A. S. Reshad, P. Tiwari, V. V. Goud	Thermal Degradation Kinetic Study of Rubber Seed Oil and Its Methyl Esters under Inert Atmosphere	Energy and Fuels	2017	31	-	9642	9651
S. R. Dasari, A. J. Chaudhari, V. V. Goud, N. Sahoo, V. Kulkarni	In-situ alkaline transesterification of castor seeds: Optimization and engine performance, combustion and emission characteristics of blends	Energy Conversion and Management	2017	142	-	200	214
G. Srivastava, A. K. Paul, V. V. Goud	Optimization of non-catalytic transesterification of microalgae oil to biodiesel under supercritical methanol condition	Energy Conversion and Management	2018	-	-	269	278
Saptak Rarotra, Tapas Kumar Mandal, Dipankar Bandyopadhyay	Microfluidic Electrolyzers for Production and Separation of Hydrogen from Naturally Abundant Solar Energy and Sea Water	Energy Technology	2017	5	-	1	11

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Mayur Kevat, Tamal Banerjee	Process Simulation and Energy Analysis for Chemical Looping Combustion and Chemical Looping with Oxygen Uncoupling for Sawdust Biomass	Energy Technology	2018	DOI:10.1002/ente.201700795		-	-
Ch. V. Rao, S. S. Bag, A. K. Golder	A biosynthesis route to nearly spherical AgNPs using chayote fruit extract	Environ. Prog. Sustain. Energy	2017	36	1	192	199
P. Ghosh, Ch. V. Rao, A. S. Giri, A. K. Golder	Steroid glycosides as potential analytes for Cu-doping on TiO ₂ for photocatalytic water treatment	Environ. Prog. Sustain. Energy	2018	DOI: 10.1002/ep.12879		-	-
A. Jabesa, P. Ghosh	Removal of dimethyl phthalate from water by ozone microbubbles	Environmental Technology	2017	38	-	2093	2103
Ch. V. Rao, A. K. Golder	Bimetal doping on TiO ₂ for photocatalytic water treatment: A green route	European Water	2017	58	-	53	60
Suman Saha, Chandan Das	Purification of Humic acids contained simulated wastewater using membrane ultrafiltration	European Water	2017	58	-	33	40
Mondal, S. and Majumder, S. K.	Frictional pressure drop of aqueous-organic two-phase flow through packed and unpacked rectangular serpentine millichannel	Experimental Thermal and Fluid Science	2018	94	-	215	230
Sunny Kumar, Bhaskarjyoti Sarma, Ashok Kumar Dasmahapatra, Amaresh Dalal, Dipankar Narayan Basu, Dipankar Bandyopadhyay	Field Induced Anomalous Spreading, Oscillation, Ejection, Spinning, and Breaking of Oil Droplets on Strongly Slipping Water Surface	Faraday Discussion	2017	-	-	-	-
Manash Pratim Borthakur, Dipankar Bandyopadhyay, Gautam Biswas	Electric field mediated separation of water-ethanol mixture in carbon-nanotubes integrated to nanoporous graphene membrane	Faraday Discussions	2018	-	-	-	-
Anand Bharti, Rupesh Verma, Prerna, Sarvesh Namdeo, Abhigyan Malviya, Tamal Banerjee, Stanley I. Sandler	Liquid-liquid equilibria and COSMO-SAC modeling of organic solvent/ionic liquid - hydroxyacetone - water mixtures	Fluid Phase Equilibria	2018	462	-	73	84
Kanchapogu Suresh, R. Uppaluri, G. Pugazhenth	Preparation and Characterization of Hydrothermally Engineered TiO ₂ -Fly Ash Composite Membrane	Frontiers of Chemical Science and Engineering	2017	11	2	266	279
D. Mallick, P. Mahanta, V. S. Moholkar	Co-gasification of coal and biomass blends: Chemistry and engineering	Fuel	2017	204	-	106	128
Geeta Kumari, Prabu Vairakannu	CO ₂ -O ₂ dry reforming based underground coal gasification using low and high ash Indian coals	Fuel	2018	216	-	301	312

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Greg Perkins, Prabu Vairakannu	Considerations for oxidant and gasifying medium selection in underground coal gasification	Fuel Processing Technology	2017	165	-	145	154
A. K.Thandlam, C. Das, S. K. Majumder	Flow Pattern-based Mass and Heat Transfer and Frictional Drag of Gas-Non-Newtonian Liquid Flow in Helical Coil: Two- and Three-phase Systems	Heat and Mass Transfer	2018	53 (4)	-	1183	1197
Nanda Kishore, Venkata S. Nalajala	Heat transfer from confined contaminated bubbles to power-law liquids at low to moderate Reynolds and Prandtl numbers	Heat Transfer – Asian Research	2017	46	-	681	702
R. R. Ramteke, N. Kishore	Heat transfer phenomena of assemblages of smooth slip spheres in Newtonian fluids	Heat Transfer – Asian Research	2017	46	-	160	175
K. M. Krishna, H. Gidituri, N. Kishore	Effects of Wall Confinement and Rheology of Non-Newtonian Nanofluids on Mixed Convection Phenomenon of a Square Cylinder in a Vertical Channel	Heat Transfer – Asian Research	2017	46	-	1222	1245
R. R. Ramteke, N. Kishore	Computational fluid dynamics study on forced convective heat transfer phenomena of spheres in power-law liquids with velocity slip at the interface	Heat Transfer Engineering	2018	39	-	162	179
A. B. Das, V. V. Goud, C. Das	Extraction of phenolic compounds and anthocyanin from black and purple rice bran (<i>Oryzasativa</i> L) using ultrasound: A comparative analysis and phytochemical profiling	Ind. Crops and Prod.	2017	95	-	332	341
P. Dhar, S. S. Gaur, N. Soundararajan, A. Gupta, S. M. Bhasney, M. Milli, A. Kumar, V. Katiyar	Reactive Extrusion of Polylactic Acid/Cellulose Nanocrystal Films for Food Packaging Applications: Influence of Filler Type on Thermomechanical, Rheological, and Barrier Properties	Industrial & Engineering Chemistry Research	2017	56	-	4718	4735
Rupesh Verma, Tamal Banerjee	Liquid–Liquid Extraction of Lower Alcohols Using Menthol-Based Hydrophobic Deep Eutectic Solvent: Experiments and COSMO-SAC Predictions	Industrial Energy and Chemistry Research	2018	DOI: 10.1021/acs.iecr.7b05270		-	-
Kibrom Alebel Gebru, Chandan Das	Cellulose acetate–modified–Titanium dioxide (TiO ₂) nanoparticles electrospun composite membranes: Fabrication and characterization	Inst. Eng. Ind. (E)	2017	98	2	91	101
S. Bera, A. S. Roy, K. Mohanty	Biodegradation of phenol by a native mixed bacterial culture isolated from crude oil contaminated site	International Biodeterioration & Biodegradation	2017	121	-	107	113

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P. Aadaleesan, P. Saha	A Nash Game Approach to Mixed H ₂ /H _∞ MPC: Part 3 - Output Feedback Case	International Journal of Automation and Computing	2017	-	-	-	-
Monika, Prodyut Dhar, Vimal Katiyar	Thermal Degradation Kinetics of Polylactic Acid/ Acid Fabricated Cellulose Nanocrystal based Bionanocomposites	International Journal of Biological Macromolecules	2017	104	-	827	836
Melakuu T. Alemea, Rahul Patwa, Arvind Gupta, Manash Kashyap, Vimal Katiyar	Recycling of Poly (Lactic Acid)/Silk based Bionanocomposites Films and its Influence on Thermal Stability, crystallization Kinetics, Solution and Melt Rheology	International Journal of Biological Macromolecules	2017	101	-	580	594
Srinu Nagireddi, Vimal Katiyar, Ramgopal Uppaluri	Pd(II) adsorption characteristics of glutaraldehyde cross-linked chitosan copolymer resin	International Journal of Biological Macromolecules	2017	94	-	72	84
Akhilesh Kumar Pal, Vimal Katiyar	Thermal Degradation Behavior of Nanoamphiphilic Chitosan Dispersed Poly(Lactic Acid) Bionanocomposite Films	International Journal of Biological Macromolecules	2017	95	-	1267	1279
Shasanka Sekhar Borkotoky, Prodyut Dhar, Vimal Katiyar	Biodegradable Poly (lactic acid)/Cellulose Nanocrystals (CNCs) Composite Microcellular Foam: Effect of Nanofillers on Foam Cellular Morphology, Thermal and Wettability Behavior	International Journal of Biological Macromolecules	2018	106	-	433	446
Gourhari Chakraborty, Ravi Babu Valapa, G.Pugazhenth, Vimal Katiyar	Investigating the properties of poly (lactic acid)/ exfoliated graphene based nanocomposites fabricated by versatile coating approach	International Journal of Biological Macromolecules	2018	113	-	1080	1091
R. B. Reddy, P. Saha	Modelling and control of nonlinear resonating processes: Part I – System identification using orthogonal basis function	International Journal of Dynamics and Control	2017	5(4)	-	1222	1236
R. B. Reddy, P. Saha	Modelling and control of nonlinear resonating processes: Part II – Model based control using orthogonal basis function based Wiener models	International Journal of Dynamics and Control	2017	5(4)	-	-	-
P. Aadaleesan, P. Saha	A Nash Game Approach to Mixed H ₂ /H _∞ MPC: Part 1 - State Feedback Linear System	International Journal of Dynamics and Control	2017	5(4)	-	1063	1072
P. Aadaleesan, P. Saha	A Nash Game Approach to Mixed H ₂ /H _∞ MPC: Part 2 - Stability and Robustness	International Journal of Dynamics and Control	2017	5(4)	-	1073	1088

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R. B. Reddy, P. Saha	Kautz Filters based Model Predictive Control for Resonating Systems	International Journal of Dynamics and Control	2017	5(3)	-	477	495
A. K. Thandlam, S. K. Majumder	Dynamic interaction model to analyse hydrodynamics of gas-non-Newtonian-liquid plug and slug flow in vertical helical coil pipe (VHCP)	International Journal of fluid Mechanics Research	2018	43 (4)	-	1	27
Bisweswar Das, Binay Deogam, Bishnupada Mandal	Absorption of CO ₂ into novel aqueous bis (3-aminopropyl) amine and enhancement of CO ₂ absorption into its blends with N-methyldiethanolamine	International Journal of Greenhouse Gas Control	2017	60	-	172	185
Surya Kanta De, V. Prabu	Experimental studies on humidified/water influx O ₂ gasification for enhanced hydrogen production in the context of underground coal gasification	International Journal of Hydrogen Energy	2017	42	-	14089	14102
Richa Sharma, Amit Kumar, Rajesh K. Upadhyay	Characteristic of a multi-pass membrane separator for hydrogen separation through self-supported PdAg membranes	International Journal of Hydrogen Energy	2018	43	-	5019	5032
R. Saha, A. Sharma, R. V. S. Uppaluri, P. Tiwari	Interfacial interaction and emulsification of crude oil to enhance oil recovery	International Journal of Oil, Gas and Coal Technology	2018	-	-	Accepted	
A. K. Singh, N. Kishore	Mixed Convection of Shear-Thinning Nanofluids past Unconfined Elliptical Cylinders in Vertical Upward Flow	International Journal of Thermal Sciences	2017	122	-	326	358
R. R. Ramteke, N. Kishore	Effects of uniform heat flux and velocity slip conditions at interface on forced convection heat transfer of spheres in Newtonian fluids	J Heat Transfer	2017	139	-	104501	104501
Akhilesh Kumar Pal, Vimal Katiyar	Chemo-Mechanical, Morphological and Rheological Studies on Chitosan-graft-Lactic Acid Oligomer Reinforced Poly (Lactic Acid) Bionanocomposite Films	J. APPL. POLYM. SCI	2018	DOI: 10.1002/APP.4554645546		-	-
V. V. Kulkarni, A. K. Golder, P. K. Ghosh	Critical analysis and valorization potential of battery industry sludge: speciation, risk assessment and metal recovery	J. Cleaner Prod.	2018	171	-	820	830
Suman Saha, Chandan Das	Spinning basket membrane ultrafiltration of paper industry waste effluent: Experimental and theoretical aspects	J. Environ. Chem. Engineering	2017	5	5	4583	4593

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Kibrom Alebel Gebru, Chandan Das	Removal of bovine serum albumin from wastewater using fouling resistant ultrafiltration membranes based on the blends of cellulose acetate, and PVP-TiO ₂ nanoparticles	J. Environ. Manage.	2017	200	-	283	294
K. Samal, C. Das, K. Mohanty	Biosurfactant (Saponin) mediated enhanced ultrafiltration for the removal of methyl violet from wastewater	J. Environ. Manage.	2017	203	-	8	16
V. V. Kulkarni, A. K. Golder, P. K. Ghosh	Synthesis and characterization of carboxylic cation exchange bio-resin for heavy metal remediation	J. Haz. Mat.	2017	341	-	207	217
Kibrom Alebel Gebru, Chandan Das	Preparation and characterization of CA-PEG-TiO ₂ membranes: Effect of PEG and TiO ₂ nanoparticles on morphology, flux and fouling performance	J. Membr. Sci. Res.	2017	3	2	90	101
Sujoy Bose, Rishiket Kundu, Chandan Das	Catalytic recovery of elemental sulfur using a novel catalytic membrane reactor at room temperature with a layer of dispersed Mo-Co/ γ -Al ₂ O ₃ catalyst: Reaction kinetics and Mass transfer study	J. Membr. Sep. Technol.	2017	6	1	28	39
Kibrom Alebel Gebru, Chandan Das	Response surface optimization of electro-spun polyvinyl alcohol nano-fiber membrane process parameters and its characterization	J. Membr. Sep. Technol.	2017	5	5	140	156
Ayyaz Siddique, Bhaskar J. Medhi, Amit Agrawal, Anugrah Singh, Sandip K. Saha	Design of a collector shape for uniform flow distribution in microchannels	J. Micromechanics and Microeng.	2017	27	-	75026	-
Akhilesh K. Pal, Vimal Katiyar	Melt processing of biodegradable poly(lactic acid)/functionalized chitosan nanocomposite films: mechanical modeling with improved oxygen barrier and thermal properties	J. Polym. Res.	2017	DOI 10.1007/s10965-017-1305-5		24	-
S. Nagireddi, A.K. Golder and R. Uppaluri	Investigation on Pd(II) removal and recovery characteristics of chitosan from electroless plating solutions	J. Water Proc. Eng.	2017	19	-	8	17
V.V. Kulkarni, A. K. Golder, P. K. Ghosh	Synergistic effect using a functionalized dual-site adsorbent in Pb(II) and Cu(II) uptake and comparison with mono-site resins	J. Water Proc. Eng.	2017	18	-	92	101

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Kibrom Alebel Gebru, Chandan Das	Removal of Pb (II) and Cu (II) ions from wastewater using electrospun cellulose acetate/ titanium oxide (TiO ₂) membrane as adsorbent	J. Water Proc. Eng.	2017	16	-	1	13
S. Nagireddi, A. K. Golder, R. Uppaluri	Role of protonation and functional groups in Pd (II) recovery and reuse characteristics of commercial anion exchange resin-synthetic electroless plating solution systems	J. Water Proc. Eng.	2018	22	-	227	238
S. M. Bhasney, R. Patwa, A. Kumar, V. Katiyar	Plasticizing effect of coconut oil on morphological, mechanical, thermal, rheological, barrier, and optical properties of poly (lactic acid): A promising candidate for food packaging	Journal of Applied Polymer Science	2017	134	41	45390	-
Babul Prasad, Bishnupada Mandal	CO ₂ separation performance by chitosan/ tetraethylenepentamine/poly (ether sulfone) composite membrane	Journal of Applied Polymer Science	2017	134	34	45206	-
Manish Kumar, Samarshi Chakraborty, Pradeep Upadhyaya, G. Pugazhenth	Morphological, mechanical and thermal features of PMMA nanocomposites containing two-dimensional (2D) Co-Al layered double hydroxide (LDH)	Journal of Applied Polymer Science	2018	135	5	45774	-
Geeta Kumari, Prabu Vairakannu	Laboratory scale studies on CO ₂ oxy-fuel combustion in the context of underground coal gasification	Journal Of CO ₂ utilization	2017	21	-	177	190
Nirmal Mallick, V. Prabu	Energy analysis on Coalbed Methane (CBM) coupled power systems	Journal of CO ₂ Utilization	2017	19	-	16	27
S. Varade, P. Ghosh	Foaming in aqueous solutions of Zwitterionic surfactants: Effects of oil and salts	Journal of Dispersion Science and Technology	2017	38	-	1770	1784
B. Vishal, P. Ghosh	Foaming in aqueous solutions of hexadecyltrimethylammonium bromide and silica	Journal of Dispersion Science and Technology	2018	39	-	62	70
Sai Phani Kumar Vangala, Amit Chaudhary, Pankaj Tiwari, Vimal Katiyar	Thermal Degradation Kinetics of Biopolymers and their Composites: Estimation of Appropriate Kinetic Parameters	Journal of Energy and Environmental Sustainability	2017	-	-	11	20
S. S. Srinet, A. Basak, P. Ghosh, J. Chatterjee	Separation of anionic surfactant in paste form from its aqueous solutions using foam fractionation	Journal of Environmental Chemical Engineering	2017	5	-	1586	1598
S. Khuntia, S. K. Majumder, P. Ghosh	Catalytic ozonation of dye in a microbubble system: Hydroxyl radical contribution and effect of salt	Journal of Environmental Chemical Engineering	2017	4	-	2250	2258

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Gazliya Nazimudheen, Kuldeep Roy, Thirugnanasambandam Sivasankar, Vijayanand S. Moholkar	Mechanistic investigations in ultrasonic pretreatment and anaerobic digestion of landfill leachates	Journal of Environmental Chemical Engineering	2018	6	2	1690	1701
K. Samal, C. Das, K. Mohanty	Application of saponin biosurfactant and its recovery in the MEUF process for removal of methyl violet from wastewater	Journal of Environmental Management	2017	203	-	8	16
Kartick Mondal, Abir Ghosh, Joydip Chaudhuri, Dipankar Bandyopadhyay	Electric Field Mediated Instability Modes and Fréedericksz Transition of Ultrathin Nematic Films	Journal of Fluid Mechanics	2018	834	464	-	-
A. B. Das, V. V. Goud, C. Das	Extraction and characterization of phenolic content from purple and black rice (Oryzasativa L) bran and its antioxidant activity	Journal of Food Measurement and Characterization	2018	12	1	332	345
R. Saha, R. V. S. Uppaluri, P. Tiwari	Influence of emulsification, interfacial tension, wettability alteration and saponification on residual oil recovery by alkali flooding	Journal of Industrial and Engineering Chemistry	2018	59	-	286	296
S. S. Gaur, P. Dhar, A. Sonowal, A. Sharma, A. Kumar, V. Katiyar	Thermo-mechanically stable sustainable polymer based solid electrolyte membranes for direct methanol fuel cell applications	Journal of Membrane Science	2017	526	-	348	354
Rima Biswas, Pallab Ghosh, Tamal Banerjee, Sk. Musharaf Ali, K. T. Shenoy	Extractive insights in the cesium ion partitioning with bis(2-propyloxy)-calix [4]crown-6 and dicyclohexano-18-crown-6 in ionic liquid-water biphasic systems	Journal of Molecular Liquid	2017	DOI:10.1016/j.molliq.2017.06.015		-	-
Ashok Kumar Dasmahapatra	Effect of Composition Asymmetry on the Phase Separation and Crystallization in Double Crystalline Binary Polymer Blends: A Dynamic Monte Carlo Simulation Study	Journal of Physical Chemistry B	2017	-	-	-	-
R. K. Mishra, K. Mohanty	Pyrolysis characteristics and kinetic parameters assessment of three waste biomass	Journal of Renewable and Sustainable Energy	2017	-	-	-	-
Kelothu Suresh, Manish Kumar, G. Pugazhenthir, R. Uppaluri	Enhanced mechanical and thermal properties of polystyrene (PS) nanocomposites prepared using organo-functionalized Ni-Al layered double hydroxide (LDH) via melt intercalation technique	Journal of Science: Advanced Materials and Devices	2017	2	2	245	254
Prince Kumar Baranwal, R. Prasanna Venkatesh	Investigation of carbon steel corrosion in ammonium chloride solutions using electrochemical impedance spectroscopy	Journal of Solid state electrochemistry	2017	21	-	1373	1384

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A. S. Reshad, P. Tiwari, V. V. Goud	Thermo-chemical conversion of waste rubber seed shell to produce fuel and value-added chemicals	Journal of the Energy Institute	2017	doi.org/10.1016/j.joei.2017.09.002		-	-
A. S. Reshad, P. Tiwari, V. V. Goud	Thermal decomposition and kinetics of residual rubber seed cake and shell	Journal of Thermal Analysis and Calorimetry	2017	129	1	577	592
F. M. Wako, A. S. Reshad, V. V. Goud	Thermal degradation kinetics study and thermal cracking of waste cooking oil for biofuel production	Journal of Thermal Analysis and Calorimetry	2017	-	-	1	9
A. K. Paul, S. K. Achar, S. R. Dasari, V. B. Borugadda, V. V. Goud	Analysis of thermal, oxidative and cold flow properties of methyl and ethyl esters prepared from soybean and mustard oils	Journal of Thermal Analysis and Calorimetry	2017	-	-	1501	1511
G. Ganeshan, K. P. Shadangi, K. Mohanty	Degradation kinetic study of pyrolysis and co-pyrolysis of biomass with polyethylene terephthalate (PET) using Coats-Redfern method	Journal of Thermal Analysis and Calorimetry	2017	DOI: 10.1007/s10973-017-6597-5		1	14
R. Vinoth Kumar, G. Pugazhenth	Removal of Chromium from Synthetic Wastewater Using FAU and MFI type Zeolite Membranes Supported on Low Cost Tubular Ceramic Substrate	Journal of Water Reuse and Desalination	2017	7	3	365	377
Ashim Kumar Basumatary, R. Vinoth Kumar, Kannan Pakshirajan and G. Pugazhenth	Removal of trivalent metal ions from aqueous solution via cross flow ultrafiltration system using zeolite membranes	Journal of Water Reuse and Desalination	2017	7	1	66	76
K. Kumar, A. Kumar	Adsorptive separation of carbon dioxide from flue gas using mesoporous MCM-41: A molecular simulation study	Korean Journal of Chemical Engineering	2018	35	2	535	547
Arbind Prasad, Siddharth Bhasney, Vimal Katiyar, M. Ravi Sankar	Biowastes Processed Hydroxyapatite filled Poly (Lactic acid) Bio-composite for open reduction internal fixation of small bones	Materials Today: Proceedings	2017	4	-	10153	10157
Arbind Prasad, M. Ravi Sankar, Vimal Katiyar	State of Art on Solvent Casting Particulate Leaching Method for Orthopedic Scaffolds Fabrication	Materials Today: Proceedings, Elsevier journal	2017	4	2	898	907
Arbind Prasad, Siddharth Mohan Bhasney, M. Ravi Sankar, Vimal Katiyar	Fish Scale Derived Hydroxyapatite reinforced Poly (Lactic acid) Polymeric Bio-films: Possibilities for Sealing/locking the Internal Fixation Devices	Materials Today: Proceedings, Elsevier journal	2017	4	2	1340	1349
A. M. Verma, N. Kishore	Thermochemistry analyses on transformation of C6 glucose compound into C9, C12, and C15 alkanes using density functional theory	Molecular Physics	2017	115	-	413	423

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Mood Mohan, Pasumarthi Viswanath, Tamal Banerjee, Vaibhav V. Goud.	Multiscale Modeling Strategies and Experimental Insights for the Solvation of Cellulose and Hemicellulose in Ionic Liquids	Molecular Physics	2018	DOI: 10.1080/00268976.2018.1447152		-	-
A. M. Verma, N. Kishore	DFT study on gas phase hydro deoxygenation of guaiacol by various reaction schemes	Molecular Simulation	2017	43	-	141	153
A. M. Verma, N. Kishore	Molecular modelling approach to elucidate the thermal decomposition routes of vanillin	New Journal of Chemistry	2017	41	-	8845	8859
Varsha Jain, Lipika Kalo, Deepak Kumar, Harish J. Pant, Rajesh K. Upadhyay	Experimental and numerical investigation of liquid-solid binary fluidized bed: radioactive particle tracking (RPT) technique and DDPM simulations	Particuology	2017	33	-	112	122
K. Endo, K. Anki Reddy, H. Katsuragi	Obstacle-shape effect in a two-dimensional granular silo flow field	Phys. Rev. Fluids 2, 094302	2017	2	94302	-	-
A. M. Verma, N. Kishore	Molecular Simulations of Palladium Catalysed Hydrodeoxygenation of 2-Hydroxybenzaldehyde using Density Functional Theory	Physical Chemistry Chemical Physics	2017	19	-	25582	25597
Manash Pratim Borthakur, Gautam Biswas, Dipankar Bandyopadhyay	Formation of liquid drops at orifice and dynamics of pinch-off in liquid jets	Physical Review E	2017	96	13115	-	-
Manash Pratim Borthakur, Gautam Biswas, Dipankar Bandyopadhyay	Transient hydrodynamics of compound droplets inside capillary tubes	Physical Review E	2018	-	-	-	-
Abir Ghosh, Dipankar Bandyopadhyay, Jayati Sarkar, Ashutosh Sharma	Hierarchical micro/nano-fabrication by pattern directed contact instabilities of thin viscoelastic films	Physical Review Fluids	2017	2	124004	-	-
Arvind Gupta, Neha Mulchandani, Manisha Shah, Sachin Kumar, Vimal Katiyar	Functionalized Chitosan mediated Stereocomplexation of Poly(lactic acid): Influence on Crystallization, Oxygen permeability, Wettability and Biocompatibility Behavior	Polymer	2018	142	-	196	208
Vibhu Sharma, R. Vinoth Kumar, Kannan Pakshirajan, G. Pugazhenth	An integrated adsorption-membrane filtration process for antibiotic removal from aqueous solution	Powder Technology	2017	321	-	259	269
J. Das, V. S. Moholkar, S. Chakma	Structural, magnetic and optical properties of sonochemically synthesized Zr-ferrite nanoparticles	Powder Technology	2018	328	-	1	6

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R. Vinoth Kumar, I. Ganesh Moorthy, G. Pugazhenth	Separation of BSA through FAU-type zeolite ceramic-composite membrane formed on tubular ceramic support: Optimization of process parameters by hybrid Response Surface Methodology and bi-objective Genetic Algorithm	Preparative Biochemistry and Biotechnology	2017	47	7	687	698
Swaroop Rani Dasari, Vaibhav V. Goud	Simultaneous extraction and transesterification of castor seeds for biodiesel production: Assessment of biodegradability	Process Safety and Environmental Protection	2017	107	-	373	387
A. R. K. Gollakota, N. Kishore	Flow Behavior and Drag Coefficients of Spherical Bubbles in Surfactant-laden Carreau Model Fluids	Progress in Computational Fluid Dynamics	2018	DOI:10.1504/PCFD.2017.10005402		-	-
Rima Biswas, Pallab Ghosh, Tamal Banerjee, Sk. Musharaf Ali	Partitioning of Cs ⁺ and Na ⁺ ions by dibenzo-18-crown-6 ionophore in biphasic aqueous systems of octanol and ionic liquid	Radiochim. Acta	2018	DOI:10.1515/ract-2017-2786		-	-
A. R. K. Gollakota, N. Kishore, Sai Gu	A review on hydrothermal liquefaction of biomass	Renewable and Sustainable Energy Reviews,	2018	81	-	1378	1392
Gitanjali Roy, M. Mohankumar, G. Pugazhenth	Preparation of Kaolin Based Tubular Ceramic Membrane: Effect of Sintering Temperature	Research Journal of Pharmaceutical, Biological and Chemical Sciences	2017	8	3S	141	150
Preethi Arulmurugan, G. Pugazhenth	Thermal and Rheological Properties of Polystyrene Nanocomposites with Carbon Nanotube and Boron Nitride as Dual Nanofiller: Effect of Boron Nitride Content	Research Journal of Pharmaceutical, Biological and Chemical Sciences	2017	8	3S	127	140
P. Das, P. Tiwari	Valorization of packaging plastic waste by slow pyrolysis	Resources, Conservation and Recycling	2018	128	-	69	77
R. B. Reddy, P. Saha	Model based control of resonating processes	Robotics & Automation Engineering Journal	2017	1(4)	-	1	2
A. M. Verma, N. Kishore	Platinum Catalysed Hydrodeoxygenation of Guaiacol in Illumination of Cresol Production: A Density Functional Theory Study	Royal Society Open Science,	2018	4	170650	-	-

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Bisweswar Das, Binay Deogam, Bishnupada Mandal	Experimental and theoretical studies on efficient carbon dioxide capture using novel bis (3-aminopropyl) amine (APA)-activated aqueous 2-amino-2-methyl-1-propanol (AMP) solutions	RSC Advances	2017	7	35	21518	21530
A. M. Verma, N. Kishore	Gas Phase Conversion of Eugenol into Various Hydrocarbons and Platform Chemicals	RSC Advances	2017	7	-	2527	2543
Lin Xu, Dipankar Bandyopadhyay, Dinesh Sankar Reddy Puchalapalli, Ashutosh Sharma, Sang Woo Joo	Giant Slip Induced Anomalous Dewetting of an Ultrathin Film on a Viscous Sublayer	Scientific Reports	2017	7	14776	-	-
Prodyut Dhar, Surendra Singh Gaur, Amit Kumar, Vimal Katiyar	Cellulose Nanocrystal Templated Graphene Nanoscrolls for High Performance Supercapacitors and Hydrogen Storage: An Experimental and Molecular Simulation Study	Scientific Reports	2018	DOI:10.1038/s41598-018-22123-0		-	-
Arvind Gupta, Akhilesh Pal, Eamor Woo, Vimal Katiyar	Effects of Amphiphilic Chitosan on Stereocomplexation and Properties of Poly(lactic acid) Nano-biocomposite	Scientific Reports	2018	DOI:10.1038/s41598-018-22281-1		-	-
Richa Sharma, Amit Kumar, Rajesh K. Upadhyay	Performance comparison of methanol steam reforming integrated to Pd-Ag membrane: Membrane reformer vs. membrane separator	Separation and Purification Technology	2017	183	-	194	203
C. S. Bandi, R. V. S. Uppaluri, A. Kumar	Global optimality of RO seawater desalination networks with permeate reprocessing and recycle	Separation Science and Technology	2017	52	-	1225	1239
Tamanna Bhuyan, Mitradip Bhattacharjee, Amit Kumar Singh, Siddhartha Sankar Ghosh, Dipankar Bandyopadhyay	Boolean-Chemotaxis of Logibots Deciphering the Motions of Self-Propelling Microorganisms	Soft Matter	2018	-	-	-	-
Vimal Katiyar, NeelimaTripathi	Functionalizing gum arabic for adhesive and food packaging Applications	SPE Plastic Research Online	2017	-	-	-	-
R. K. Das, A. K. Golder	Role of supporting electrolytes on the stability of TiO ₂ -Ti counter electrode during H ₂ O ₂ electrogeneration	Surf. Eng. Appl. Electrochem.	2017	53	6	570	569
V. Rani, R. K. Das, A. K. Golder	Fabrication of reduced graphene oxide-graphite paste electrode for H ₂ O ₂ formation and its implication for ciprofloxacin degradation	Surf. Interfac.	2017	7	-	99	105

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
H. Sahu, K. Mohanty	One pot peroxidation of Oleic acid rich Azadirachta indica oil over bio-waste derived heterogeneous catalyst	The Canadian Journal of Chemical Engineering	2017	9999	-	1	12
A. K. Paul, V. B. Borugadda, M. S. Bhalariao	In situ epoxidation of waste soybean cooking oil for synthesis of biolubricant base stock: A process parameter optimization and comparison with RSM, ANN and GA	The Canadian Journal of Chemical Engineering	2018	-	-	-	-
Rima Biswas, Abhigyan Malviya, Pallab Ghosh, Tamal Banerjee, Sk. Musharaf Ali	Alkali Metal Ion Partitioning with Calix[4]arene-benzo-crown-6 Ionophore in Acidic Medium: Insights from Experiments, Statistical Mechanical Framework, and Molecular Dynamics Simulations	The Journal of Physical Chemistry	2018	122	-	2102	2112
K. Kumar, A. Kumar	Enhanced CO ₂ Adsorption and Separation in Ionic-Liquid-Impregnated Mesoporous Silica MCM-41: A Molecular Simulation Study	The Journal of Physical Chemistry	2018	DOI: 10.1021/acs.jpcc.7b11529		-	-
A. R. K. Gollakota, N. Kishore	CFD Study on Rise and Deformation Characteristics of Buoyancy-Driven Spheroid Bubbles in Stagnant Carreau Model Non-Newtonian Fluids	Theoretical and Computational Fluid Dynamics,	2018	DOI: 10.1007/s00162-017-0436-y		-	-
P. Das, P. Tiwari	Thermal degradation kinetics of plastics and model selection	Thermochimica Acta	2017	654	-	191	202
Arvind Gupta, Vimal Katiyar	Cellulose Functionalized High Molecular Weight Stereocomplex Polylactic acid Biocomposite Films with Improved Gas Barrier	Thermomechanical Properties.	2017	ACS Sustainable Chem. Eng	5	6835	6844
S. Chakraborty, V. Rao Chelli, R. K. Das, A. S. Giri, A. K. Golder	Bio-mediated silver nanoparticle synthesis: mechanism and microbial inactivation	Toxicol. Environ. Chem.	2017	99	3	434	447
A. K. Singh, N. Kishore	Laminar Mixed Convection of Non-Newtonian Nanofluids Flowing Vertically Upward across a Confined Circular Cylinder	Trans. ASME Journal of Thermal Science and Engineering Applications,	2018	-	-	-	-
S. Sharma, M. K. Poddar, V. S. Moholkar	Enhancement of thermal and mechanical properties of poly (MMA-co-BA)/Cloisite 30B nanocomposites by ultrasound-assisted in-situ emulsion polymerization	Ultrasonics Sonochemistry	2017	36	-	212	225
M. K. Poddar, S. Sharma, S. Pattipaka, D. Pamu, V. S. Moholkar	Ultrasound-assisted synthesis of poly(MMA-co-BA)/ZnO nanocomposites with enhanced physical properties	Ultrasonics Sonochemistry	2017	39	-	782	791

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Maneesh Kumar Poddar, Mohammad Arjmand, Uttandaraman Sundararaj, Vijayanand S. Moholkar	Ultrasound-assisted synthesis and characterization of magnetite nanoparticles and poly (methyl methacrylate)/magnetite nanocomposites	Ultrasonics Sonochemistry	2018	43	-	38	51
K. Samal, K. Mohanty, C. Das	Treatment of Pb Ion Contaminated Wastewater Using Hazardous Parthenium (P. Hysterophorus L.) Weed	Water Science and Technology	2017	75	-	427	438
Kulbhushan Samal, Kuntal Maity, Kaustubha Mohanty, Chandan Das	Ultrafiltration of aqueous PVA using spinning basket membrane module	Water, Air, & Soil Pollution	2018	229	3	96	-

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A. Das, J. Deka, A. M. Rather, B. K. Bhunia, P. P. Saikia, B. B. Mandal, K. Raidongia, U. Manna	Strategic Formulation of Graphene Oxide Sheets for Flexible Monoliths and Robust Polymeric Coatings that Embedded with Durable Bio-inspired Wettability	ACS Applied Materials & Interfaces	2017	9	48	42354	42365
D. Dutta, S. K. Sailapu, A. Chattopadhyay, S. S. Ghosh	Phenylboronic Acid Templated Gold Nanoclusters for Mucin Detection Using a Smartphone-Based Device and Targeted Cancer Cell Theranostics	ACS Applied Materials and Interfaces	2018	10	4	3210	3218
U. Goswami, A. Dutta, A. Raza, R. Kandimalla, S. Kalita, S. S. Ghosh, A. Chattopadhyay	Transferrin-Copper Nanocluster-Doxorubicin Nanoparticles as Targeted Theranostic Cancer Nanodrug	ACS Applied Materials and Interfaces	2018	10	4	3282	3294
A. H. Malik, A. Kalita, P. K. Iyer	Development of Well-Preserved, Substrate-Versatile Latent Fingerprints by Aggregation-Induced Enhanced Emission-Active Conjugated Polyelectrolyte	ACS Applied Materials and Interfaces	2017	9	42	37501	37508
B. Chatterjee, A. Ghoshal, A. Chattopadhyay, S. S. Ghosh	DGTP-Templated Luminescent Gold Nanocluster-Based Composite Nanoparticles for Cancer Theranostics	ACS Biomaterials Science and Engineering	2018	4	3	1005	1012
A. Tarai, J. B. Baruah	Conformation and visual distinction between urea and thiourea derivatives by an acetate ion and a hexafluorosilicate cocrystal of the urea derivative in the detection of water in dimethylsulfoxide	ACS Omega	2017	2	10	6991	7001

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S. K. Sailapu, D. Dutta, A. K. Sahoo, S. S. Ghosh, A. Chattopadhyay	Single Platform for Gene and Protein Expression Analyses Using Luminescent Gold Nanoclusters	ACS Omega	2018	3	2	2119	2129
R. Bag, D. Sar, T. Punniyamurthy	Aerobic Metal-Free Dioxygenation of Alkenes with tert-Butyl Nitrite and N-Hydroxylamines	ACS Omega	2017	2	-	6278	6290
R. N. Devi, B. K. Behera, A. K. Saikia	Stereo- and Regio-selective Synthesis of 4-Vinylpyrrolidine from N-tethered Alkyne-Alkenol	ACS Omega	2018	3	-	576	584
S. Vasimalla, N. V. V. Subbarao, M. Gedda, D. K. Goswami, P. K. Iyer	Effects of Dielectric Material, HMDS Layer, and Channel Length on the Performance of the Perylenediimide-Based Organic Field-Effect Transistors	ACS Omega	2017	2	6	2552	2560
R. S. Giri, S. R. Manne, G. Dolai, A. Paul, T. Kalita, B. Mandal	FeCl ₃ -Mediated side chain modification of aspartic Acid- and glutamic acid-containing peptides on a solid support	ACS Omega	2017	2	10	6586	6597
Gopal Pandit, Karabi Roy, Umang Agarwal, Sunanda Chatterjee	Self-Assembly Mechanism of a Peptide-Based Drug Delivery Vehicle	ACS Omega	2018	3	3	3143	3155
A. K. Sahoo, S. K. Sailapu, D. Dutta, S. Banerjee, S. S. Ghosh, A. Chattopadhyay	DNA-Templated Single Thermal Cycle Based Synthesis of Highly Luminescent Au Nanoclusters for Probing Gene Expression	ACS Sustainable Chemistry and Engineering	2018	6	2	2142	2151
A. Dahiya, W. Ali, B. K. Patel	Catalyst and Solvent Free Domino Ring Opening Cyclization: A Greener and Atom Economic Route to 2-Imino-thiazolidines	ACS Sustainable Chemistry and Engineering	2018	6	3	4272	4281
T. K. Sahu, S. Arora, A. Banik, P. K. Iyer, M. Qureshi	Efficient and Rapid Removal of Environmental Malignant Arsenic(III) and Industrial Dyes Using Reusable, Recoverable Ternary Iron Oxide - ORMOSIL - Reduced Graphene Oxide Composite	ACS Sustainable Chemistry and Engineering	2017	5	7	5912	5921
S. Mukhopadhyay, U. Nath, S. C. Pan	Organocatalytic Asymmetric Synthesis of 3,3-Disubstituted 3,4-Dihydro-2-quinolones	Advanced synthesis & catalysis	2017	359	22	3911	3916
W. Ali, A. Dahiya, B. K. Patel	Cascade Synthesis of Dihydrobenzofurans and Aurones via Palladium-Catalyzed Isocyanides Insertion into 2-Halophenoxy Acrylates	Advanced Synthesis and Catalysis	2018	360	6	1232	1239

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S. Samanta, S. Halder, P. Dey, U. Manna, A. Ramesh, G. Das	A ratiometric fluorogenic probe for the real-time detection of SO ₃ ²⁻ in aqueous medium: Application in a cellulose paper based device and potential to sense SO ₃ ²⁻ in mitochondria	Analyst	2018	143	1	250	257
S. Nandi, S. Banesh, V. Trivedi, S. Biswas	A dinitro-functionalized metal-organic framework featuring visual and fluorogenic sensing of H ₂ S in living cells, human blood plasma and environmental samples	Analyst	2018	143	6	1482	1491
P. Bhalla, S. Sultana, A. K. Chiranjivi, A. K. Saikia, V. K. Dubey	Synthesis of Methyl 4-(7-hydroxy-4,4,8-trimethyl-3-oxabicyclo[3.3.1]nonan-2-yl)benzoate and their evaluation as anti-leishmanial: Synergistic effect with Miltefosine	Antimicrobial Agents and Chemotherapy	2018	62	-	e01810	e01817
R. Unnava, A. K. Sahu, A. K. Saikia	Intramolecular Pictet-Spengler Reaction of Cyclic Iminium ions: A Novel Access to Benzo[1,4]oxazepine Fused Tetrahydro isoquinoline and Tetrahydro- β -carboline Analogues	Asian Journal of Organic Chemistry	2017	6	-	1003	1007
N. Singha, P. Gupta, B. Pramanik, S. Ahmed, A. Dasgupta, A. Ukil, D. Das	Hydrogelation of a Naphthalene Diimide Appended Peptide Amphiphile and its Application in Cell-Imaging and Intracellular pH Sensing	Biomacromolecules	2017	18	11	3630	3641
S. S. Bag, A. Yashmeen	Uracil-amino acid as a scaffold for β -sheet peptidomimetics: Study of photophysics and interaction with BSA protein	Bioorganic and Medicinal Chemistry Letters	2017	27	24	5387	5392
M. S. Ansari, A. Banik, M. Qureshi	Morphological tuning of photo-booster g-C ₃ N ₄ with higher surface area and better charge transfers for enhanced power conversion efficiency of quantum dot sensitized solar cells	Carbon	2017	121	-	90	105
D. Parbat, U. Manna	Selective Liaison With Liquids for Environment-Friendly and Comprehensive Oil/Water Separation	Chem Sus Chem	2017	10	-	4839	4844
V. Kapoor, R. Rai, D. Thiagarajan, S. Mukherjee, G. Das, A. Ramesh	A Nonbactericidal Zinc-Complexing Ligand as a Biofilm Inhibitor: Structure-Guided Contrasting Effects on Staphylococcus aureus Biofilm	ChemBioChem	2017	18	15	1502	1509
G. C. Paul, S. Ghorai, C. Mukherjee	Monoradical-Containing Four-Coordinate Co(III) Complexes: Homolytic S-S, Se-Se Bond Cleavage and Catalytic Isocyanate to Urea Conversion Under Sunlight	Chemical Communications	2017	53	-	8022	8025

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Suman Jyoti Deka, Ashalata Roy, Vibin Ramakrishnan, Debasis Manna, Vishal Trivedi	Danazol has potential to cause PKC translocation, cell cycle dysregulation, and apoptosis in breast cancer cells	Chemical biology & drug design	2017	89	6	953	963
S. Kumar, A. Paul, S. Kalita, A. K. Ghosh, B. Mandal, A. C. Mondal	Protective effects of β -sheet breaker α/β -hybrid peptide against amyloid β -induced neuronal apoptosis in vitro	Chemical Biology and Drug Design	2017	89	6	888	900
P. B. De, S. Pradhan, S. Banerjee, T. Punniyamurthy	Expedient cobalt(II)-catalyzed site-selective C7-arylation of indolines with arylboronic acids	Chemical Communications	2018	54	20	2494	2497
S. Mukhopadhyay, S. C. Pan	Organocatalytic asymmetric synthesis of 2,4-disubstituted imidazolidines via domino addition-aza-Michael reaction	Chemical Communications	2018	54	-	964	967
M. Gopi Kiran, K. Pakshirajan, G. Das	A new application of anaerobic rotating biological contactor reactor for heavy metal removal under sulfate reducing condition	Chemical Engineering Journal	2017	321	-	67	75
H. Sahu, R. Shukla, J. Goswami, P. Gaur, A. N. Panda	Alternating phenylene and furan/pyrrole/ thiophene units-based oligomers: A computational study of the structures and optoelectronic properties	Chemical Physics Letters	2018	692	-	152	159
A. Kumar, T. M. Bhatti, A. S. Goldman	Dehydrogenation of Alkanes and Aliphatic Groups by Pincer-Ligated Metal Complexes	Chemical Reviews	2017	117	19	12357	12384
D. Parbat, S. Gaffar, A. M. Rather, A. Gupta, U. Manna	A General and Facile Chemical Avenue for Controlled and Extreme Regulation of Water-Wettability in Air and Oil-Wettability Under Water	Chemical Science	2017	8	-	6542	6554
D. Parbat, U. Manna	Synthesis of "Reactive" and Covalent Polymeric Multilayers Coatings with Durable Superoleophobicity and Superoleophilicity Properties under Water	Chemical Science	2017	8	-	6092	6102
S. R. Chowdhury, S. Mukherjee, S. Das, C. R. Patra, P. K. Iyer	Multifunctional (3-in-1) cancer theranostics applications of hydroxyquinoline-appended polyfluorene nanoparticles	Chemical Science	2017	8	11	7566	7575
S. Basu, A. Paul, A. Chattopadhyay	Zinc-Coordinated Hierarchical Organization of Ligand-Stabilized Gold Nanoclusters for Chiral Recognition and Separation	Chemistry - A European Journal	2017	23	38	9137	9143

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A. Mukhopadhyay, T. Hossen, I. Ghosh, A. L. Koner, W. M. Nau, K. Sahu, J. N. Moorthy	Helicity-Dependent Regiodifferentiation in the Excited-State Quenching and Chiroptical Properties of Inward/Outward Helical Coumarins	Chemistry - A European Journal	2017	23	59	14797	14805
R. K. Gupta, D. S. S. Rao, S. K. Prasad, A. S. Achalkumar	Columnar Self-Assembly of Electron-Deficient Dendronized Bay-Annulated Perylene Bisimides	Chemistry- A European Journal	2018	24	-	3566	3575
S. Arae, T. Mori, T. Kawatsu, D. Ueda, Y. Shigeta, N. Hamamoto, H. Fujimoto, M. Sumimoto, T. Imahori, K. Igawa, K. Tomooka, T. Punniyamurthy, R. Irie	Synthesis and stereochemical properties of chiral hetero[7]helicenes structured by a benzodiheterole ring core	Chemistry Letters	2017	46	8	1214	1216
A. Das, J. Deka, K. Raidongia, U. Manna	Robust and Self-Healable Bulk-Superhydrophobic Polymeric Coating	Chemistry of Materials	2017	29	20	8720	8728
M. Borah, A. K. Saikia	FeCl ₃ -Mediated Carbenium Ion-Induced Intramolecular Cyclization of N-Tethered Alkyne-Benzyl Alkanols	Chemistry Select	2018	3	-	2162	2166
S. Gorai, D. Paul, R. Borah, N. Haloi, M. K. Santra, D. Manna	Role of Cationic Groove and Hydrophobic Residues in Phosphatidylinositol-Dependent Membrane-Binding Properties of Tks5-Phox Homology Domain	Chemistry Select	2018	3	4	1205	1214
N. Pradhan, S. Paul, S. J. Deka, A. Roy, V. Trivedi, D. Manna	Identification of Substituted 1H-Indazoles as Potent Inhibitors for Immunosuppressive Enzyme Indoleamine 2, 3-Dioxygenase 1	Chemistry Select	2017	2	20	5511	5517
B. Pramanik, S. Ahmed, N. Singha, D. Das	Self-Assembly Assisted Tandem Sensing of Pd ²⁺ and CN ⁻ by a Perylenediimide-Peptide Conjugate	Chemistry Select	2017	2	-	10061	10066
A. Saha, S. Panda, N. Pradhan, K. Kalita, V. Trivedi, D. Manna	Azidophosphonate Chemistry as a Route for a Novel Class of Vesicle-Forming Phosphonolipids	Chemistry-A European Journal	2018	24	5	1121	1127
M. A. Haque, C. K. Jana	Regiodivergent Remote Arylation of Cycloalkanols to Dysideanone's Fused Carbotetracycles and Its Bridged Isomers	Chemistry-A European Journal	2017	23	-	13300	13304
M. P. Singh, N. Phukan, J. Baruah	Emission of Pyrene Connected to Benzothiazole Unit via Resonance and Intramolecular Charge Transfer	ChemistrySelect	2018	3	3	963	967
A. Tarai, J. B. Baruah	Resonance Energy Transfer Emission Observed in Cocrystal of N,N'-Bis(3-imidazol-1-ylpropyl) naphthalenediimide with Cinnamic Acid	ChemistrySelect	2017	2	31	10101	10106

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A. Tarai, J. B. Baruah	Inclusion of 2,4-Dihydroxybenzaldehyde and 2,4-Dihydroxybenzaloxime in Cadmium Coordination Polymer and Conversion of Guest Aldehyde to Oxime	ChemistrySelect	2017	2	35	11482	11486
K. Shankar, A. Mondal, Y. Li, Y. Journaux, J. B. Baruah	Hydroxide-Bridged Mixed-Valence Tetranuclear Cobalt 4-Nitrophenol Inclusion Complex Showing Single Molecule Magnet Property	ChemistrySelect	2017	2	26	7792	7798
M. Belal, A. T. Khan	PTSA.H ₂ O-Catalyzed Reaction of 3-Aminocoumarins and Phenylacetaldehydes: A Route to Access Various Pyrido(2,3-c)coumarin Derivatives	ChemistrySelect	2017	2	32	10501	10504
M. Kannan, P. B. De, S. Pradhan, T. Punniyamurthy	Chiral Fe-Dendrimer-Catalyzed Domino Michael and Aldol Reactions of Chalcones with 1, 4-Dithiane-2, 5-diol	ChemistrySelect	2018	3	3	859	863
N. Behera, V. Manivannan	Nanomolar Detection of Al(III) Ion by Hydrazones Carrying Benzothiazole and Substituted Phenol Groups	ChemistrySelect	2017	2	-	11048	11054
J. Bori, N. Behera, S. Mahata, V. Manivannan	Synthesis of Imidazo[5, 1-a]isoquinoline and Its 3-Substituted Analogues Including the Fluorescent 3-(1-Isoquinoliny)imidazo[5,1-a]isoquinoline	ChemistrySelect	2017	2	-	11727	11731
P. Chauhan, P. Dey, S. Mukherjee, U. Manna, G. Das, A. Ramesh	A Cytocompatible Zinc Oxide Nanocomposite Loaded with an Amphiphilic Arsenal for Alleviation of Staphylococcus Biofilm	ChemistrySelect	2018	3	9	2492	2497
P. Gopikrishna, D. Das, P. K. Iyer	Color Tunable Donor-Acceptor Electroluminescent Copolymers: Synthesis, Characterization, Photophysical Properties and PLED Fabrication	ChemistrySelect	2017	2	24	7044	7049
D. Das, P. Gopikrishna, A. Singh, A. Dey, P. K. Iyer	Solution Processed WPLEDs with Good Color Stability and High Color Rendering Index via a Phosphor-Sensitized System	ChemistrySelect	2017	2	10	3184	3190
S. S. Bag, S. K. Das	Design, Synthesis and Photophysical Property of a Doubly Widened Fused-Triazolyl-Phenanthrene Unnatural Nucleoside	ChemistrySelect	2017	2	12	3577	3583
J. Chandra, R. Chaudhuri, S. R. Manne, S. Mondal, B. Mandal	Direct Synthesis of Sulphonates of Alcohol, Oxyma-O-sulphonates and Oxime-O-sulphonates under Microwave Irradiation	ChemistrySelect	2017	2	27	8471	8477

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B. Pramanik, S. Ahmed, R. Roy, B. K. Das, N. Singha, D. Das	A DNA-NDI hybrid to efficiently detect histone in parts per trillion (ppt) level.	ChemistrySelect	2017	2		8911	8916
D. Bhattacharjee, C. Basu, Q. Bhardwaj, S. Mal, S. Sahu, R. Sur, K. P. Bhabak	Design, Synthesis and Anti-Cancer Activities of Benzyl Analogues of Garlic-Derived Diallyl Disulfide (DADS) and the Corresponding Diselenides	ChemistrySelect	2017	2	24	7399	7406
D.Thiyagarajan, G. Das, A. Ramesh	Amphiphilic Cargo-Loaded Nanocarrier Enhances Antibiotic Uptake and Perturbs Efflux: Effective Synergy for Mitigation of Methicillin-Resistant Staphylococcus aureus	ChemMedChem	2017	12	14	1125	1132
B. Pramanik, J. H. Mondal, N. Singha, S. Ahmed, J. Mohanty, D. Das	A Viologen-Perylenediimide Conjugate as an Efficient Base Sensor with Solvochromic Property	ChemPhysChem	2017	18	-	245	252
S. Dutta, N. P. Das, D. Mahanta	Dynamics and control of spiral and scrollwaves	Complexity and Synergetics	2017		-	155	165
B. Phukan, S. Ghorai, K. Deka, P. Deb, C. Mukherjee	"Interactions of Alkali and Alkali-Earth Metals in Water-Soluble Heterometallic FeIII/M (M = Na ⁺ , K ⁺ , Ca ²⁺)-Type Coordination Complex	Crystal Growth & Design	2018	18	-	531	539
A. Tarai, J. B. Baruah	Changing π -Interactions and Conformational Adjustments of N-(Isonicotinylhydrazide)-1,8-naphthalimide by Hydration and Complexation Affect Photophysical Properties	Crystal Growth and Design	2018	18	1	456	465
U. Manna, S. Halder, G. Das	Ice-like Cyclic Water Hexamer Trapped within a Halide Encapsulated Hexameric Neutral Receptor Core: First Crystallographic Evidence of a Water Cluster Confined within a Receptor-Anion Capsular Assembly	Crystal Growth and Design	2018	18	3	1818	1825
B. Das, H. K. Srivastava	Influence of the Local Chemical Environment in the Formation of Multicomponent Crystals of L-Tryptophan with N-Heterocyclic Carboxylic Acids: Unusual Formation of Double Zwitterions	Crystal Growth and Design	2017	17	7	3796	3805
U. Manna, G. Das	Anion binding consistency by influence of aromatic: Meta -disubstitution of a simple urea receptor: Regular entrapment of hydrated halide and oxyanion clusters	CrystEngComm	2017	19	37	5622	5634

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R. Dalapati, B. Sakthivel, M. K. Ghosalya, A. Dhakshinamoorthy, S. Biswas	A cerium-based metal-organic framework having inherent oxidase-like activity applicable for colorimetric sensing of biothiols and aerobic oxidation of thiols	CrystEngComm	2017	19	39	5915	5925
S. Kumar, A. Paul, S. Kalita, A. Kumar, S. Srivastav, S. Hazra, A. K. Ghosh, B. Mandal, A. C. Mondal	A peptide based pro-drug ameliorates amyloid- β induced neuronal apoptosis in in vitro SH-SY5Y cells	Current Alzheimer Research	2017	14	12	1293	1304
U. Manna, S. Kayal, S. Samanta, G. Das	Fixation of atmospheric CO ₂ as novel carbonate-(water) ₂ -carbonate cluster and entrapment of double sulfate within a linear tetrameric barrel of a neutral bis-urea scaffold	Dalton Transactions	2017	46	31	10374	10386
U. Manna, S. Kayal, B. Nayak, G. Das	Systematic size mediated trapping of anions of varied dimensionality within a dimeric capsular assembly of a flexible neutral bis-urea platform	Dalton Transactions	2017	46	35	11956	11969
M. Khannam, T. Weyhermuller, U. Goswami, C. Mukherjee	A Highly Stable L-Alanine-Based Mono(aquated) Mn(II) Complex as T1-weighted MRI Contrast Agent	Dalton Transactions	2017	46	-	10426	10432
B. Phukan, C. Mukherjee, R. Varshney	A New Heptadentate Picolinate-Based Ligand and Its Corresponding Gd(III) Complex: the Effect of Picolinate versus Acetate Pendant on Complex Property	Dalton Transactions	2018	47	-	135	142
R. Dalapati, Ü. Kökçam-Demir, C. Janiak, S. Biswas	The effect of functional groups in the aqueous-phase selective sensing of Fe(III) ions by thienothiophene-based zirconium metal-organic frameworks and the design of molecular logic gates	Dalton Transactions	2018	47	4	1159	1170
A. Das, S. Banesh, V. Trivedi, S. Biswas	Extraordinary sensitivity for H ₂ S and Fe(III) sensing in aqueous medium by Al-MIL-53-N ₃ metal-organic framework: In vitro and in vivo applications of H ₂ S sensing	Dalton Transactions	2018	47	8	2690	2700
S. Nandi, H. Reinsch, S. Banesh, N. Stock, V. Trivedi, S. Biswas	Rapid and highly sensitive detection of extracellular and intracellular H ₂ S by an azide-functionalized Al(III)-based metal-organic framework	Dalton Transactions	2017	46	38	12856	12864

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Borah S., Bhattacharyya B., Deka J., Borah A., Devi A., Deka D., Mishra S., Raidongia K., Gogoi N.	Enhanced catalytic activity and near room temperature gas sensing properties of SnO ₂ nanoclusters@mesoporous Sn(IV) organophosphonate composite	Dalton Transactions	2017	46	26	8664	8672
P. Mandal, B. K. Kundu, K. Vyas, V. Sabu, A. Helen, S. S. Dhankhar, C. M. Nagaraja, D. Bhattacharjee, K. P. Bhabak, S. Mukhopadhyay	Ruthenium(II) arene NSAID complexes: Inhibition of cyclooxygenase and antiproliferative activity against cancer cell lines	Dalton Transactions	2018	47	2	517	527
A. Gupta, S. R. Dhakate, P. Pal, A. Dey, P. K. Iyer, D. K. Singh	Effect of graphitization temperature on structure and electrical conductivity of poly-acrylonitrile based carbon fibers	Diamond and Related Materials	2017	78	-	31	38
V. S. Varma, S. Nashine, C. V. Sastri, A. S. Kalamdhad	Influence of carbide sludge on microbial diversity and degradation of lignocellulose during in-vessel composting of agricultural waste	Ecological Engineering	2017	101	-	155	161
M. S. Ansari, R. Maragani, A. Banik, R. Misra, M. Qureshi	Enhanced photovoltaic performance using biomass derived nano 3D ZnO hierarchical superstructures and a D-A type CS-Symmetric triphenylamine linked bithiazole	Electrochimica Acta	2018	259	-	262	275
S. Joychandra Singh, B. Ahmad Mir, B. K. Patel	A TBPB-Mediated C-3 Cycloalkylation and Formamidation of 4-Arylcoumarin	European Journal of Organic Chemistry	2018	2018	8	1026	1033
R. Bag, P. B. De, S. Pradhan, T. Punniyamurthy	Recent Advances in Radical Dioxygenation of Olefins	European Journal of Organic Chemistry	2017	2017	37	5424	5438
B. Mondal, K. Mondal, P. Satpati, S. C. Pan	Organocatalytic Asymmetric Dimerization of γ -Hydroxyenones to Acetals and Theoretical Investigations into the Diastereoselection	European Journal of Organic Chemistry	2017	2017	47	7101	7106
B. Mondal, S. Nandi, S. C. Pan	Organocatalytic Asymmetric Synthesis of Tetrahydrothiophenes and Tetrahydrothiopyrans	European Journal of Organic Chemistry	2017	2017	32	4666	4677
U. Nath, S. C. Pan	Organocatalytic Asymmetric [4 + 2] Cycloaddition of 1-Acetylcyclopentene and 1-Acetyl cyclohexene for the Synthesis of Fused Carbocycles	European Journal of Organic Chemistry	2017	2017	43	6457	6461
S. C. Sahoo, U. Nath, S. C. Pan	Direct Aerial Oxidative Reactions of 2-Hydroxyacetophenones	European Journal of Organic Chemistry	2017	2017	30	4434	4438

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R. K. Gupta, H. Ulla, M. N. Satyanarayan, A. S. Achalkumar	Perylene-Triazine based star-shaped green light emitter for organic lightemitting diodes	European Journal of Organic Chemistry	2018	-	-	1608	1613
M. Mohan, P. K. Naik, T. Banerjee, V. V. Goud, S. Paul	Solubility of Glucose in Tetrabutylammonium Bromide Based Deep Eutectic Solvents: Experimental and Molecular Dynamics Simulations	Fluid Phase Equilibria	2017	448	-	168	177
A. M. Rather, N. Jana, S. Begum, H. K. Srivastava, U. Manna	Exceptional Control on Physical Properties of Polymeric Material Through Alcoholic-Solvent Mediated Environmental-Friendly Michael Addition Reaction	Green Chemistry	2017	19	-	4527	4532
K. Gogoi, S. Saha, B. Mondal, H. Deka, S. Ghosh, B. Mondal	Dioxygenation Reaction of a Cobalt-Nitrosyl: Putative Formation of a Cobalt-Peroxynitrite via a {CoIII(NO) (O2 -)} Intermediate	Inorganic Chemistry	2017	56	23	14438	14445
S. Saha, S. Ghosh, K. Gogoi, H. Deka, B. Mondal, B. Mondal	Reaction of a Co(III)-Peroxo Complex and NO: Formation of a Putative Peroxynitrite Intermediate	Inorganic Chemistry	2017	56	18	10932	10938
S. Saha, K. Gogoi, B. Mondal, S. Ghosh, H. Deka, B. Mondal	Reaction of a Nitrosyl Complex of Cobalt Porphyrin with Hydrogen Peroxide: Putative Formation of Peroxynitrite Intermediate	Inorganic Chemistry	2017	56	14	7781	7787
H. Deka, S. Ghosh, K. Gogoi, S. Saha, B. Mondal	Nitric Oxide Reactivity of a Cu(II) Complex of an Imidazole-Based Ligand: Aromatic C-Nitrosation Followed by the Formation of N-Nitrosohydroxylaminato Complex	Inorganic Chemistry	2017	56	9	5034	5040
P. Sarkar, M. K. Mondal, A. Sarmah, S. Maity, C. Mukherjee	An Iminosemiquinone-Coordinated Oxidovanadium(V) Complex: A Combined Experimental and Computational Study	Inorganic Chemistry	2017	56	-	8068	8077
K-A. Lippert, C. Mukherjee, J-P. Broschinski, Y. Lippert, S. Walleck, A. Stammler, H. Bogge, J. Schnack, T. Glaser	Suppression of Magnetic Quantum Tunneling in a Chiral Single-Molecule Magnet by Ferromagnetic Interactions	Inorganic Chemistry	2017	56	-	15119	15129
B. Phukan, C. Mukherjee, U. Goswami, A. Sarmah, S. Mukherjee, S. K. Sahoo, S. C. Moi	A New Bis(aquated) High Relaxivity Mn(II) Complex as an Alternative to Gd(III)-Based MRI Contrast Agent	Inorganic Chemistry	2018	57	-	3631	3638
K. Shankar, J. B. Baruah	A stable peroxo- and hydroxido-bridged dinuclear cobalt(III) ethylenediamine 2,4-dinitrophenolate complex	Inorganic Chemistry Communications	2017	84	-	45	48

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K. Shankar, M. P. Singh, J. B. Baruah	Extent of protonation of 4,4'-bipyridinium cations and nature of host influences the amount of guest intake by cobalt(II) 2,6-pyridinedicarboxylate	Inorganica Chimica Acta	2018	469	-	440	446
A. Tarai, T. Mandal, J. B. Baruah	While deprotonating 1-(4-nitrophenyl)-3-((pyridin-4-yl)methyl)thiourea by tetrabutylammonium fluoride also provides a means for etching of glass	Inorganica Chimica Acta	2017	464	-	108	113
S. Ghosh, H. Deka, S. Saha, B. Mondal	Nitrogen dioxide reactivity of a Nickel(II) complex of tetraazacyclotetradecane ligand	Inorganica Chimica Acta	2017	466	-	285	290
A. Paul, S. Kumar, S. Kalita, A. K. Ghosh, A. C. Mondal, B. Mandal	A Peptide Based Pro-drug Disrupts Alzheimer's Amyloid into Non-toxic Species and Reduces A β Induced Toxicity In Vitro	International Journal of Peptide Research and Therapeutics	2018	24	1	201	211
N. Behera, V. Manivannan	A Probe for Multi Detection of Al ³⁺ , Zn ²⁺ and Cd ²⁺ Ions via Turn-On Fluorescence Responses	J. Photochem. Photobiol. A	2018	353	-	77	85
P. K. Naik, P. Paul, T. Banerjee	Liquid-Liquid Equilibria Measurements for the Extraction of Poly Aromatic Nitrogen Hydrocarbons With a Low Cost Deep Eutectic Solvent: Experimental and Theoretical Insights	Journal of Molecular Liquids	2017	243	-	542	552
G. Borgohain, S. Paul	The Opposing Effect of Urea and High Pressure on the Conformation of the Protein β -Hairpin: A Molecular Dynamics Simulation Study	Journal of Molecular Liquids	2018	251	-	378	384
S. Das, S. Paul	Hydrotropic Solubilization of Sparingly Soluble Riboflavin Drug Molecule in Aqueous Nicotinamide Solution	Journal of Physical Chemistry B	2017	121	-	8774	8785
S. Das, S. Paul	The Hydrotropic Action of Cationic Hydrotrope p-Toluidinium Chloride on the Solubility of Sparingly Soluble Gliclazide Drug Molecule: A Computational Study	Journal of Chemical Information and Modeling	2017	57	-	1461	1473
M. P. Singh, J. B. Baruah	Dual Modes and Dual Emissions of an Amino-Naphthoquinone Derivative	Journal of Fluorescence	2017	27	5	1923	1928
R. K. Gupta, S. K. Pathak, J. De, S. K. Pal, A. S. Achalkumar	Room temperature columnar liquid crystalline self-assembly of acidochromic, luminescent, star-shaped molecules with cyanovinylene chromophores	Journal of Material Chemistry C	2018	6	-	1844	1852

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A. K. Yadav, B. Pradhan, H. Ulla, M. Gupta, S. K. Pal, M. N. Satyanarayan, A. S. Achalkumar	Tuning the self-assembly and photophysical properties of bi-1,3,4-Thiadiazole derivatives through electron donor-acceptor interactions and their application in OLEDs	Journal of Material Chemistry C	2017	6	-	9345	9358
R. K. Gupta, D. Das, M. Gupta, S. K. Pal, P. K. Iyer, A. S. Achalkumar	Electroluminescent Room Temperature Columnar Liquid Crystals Based On bay-Annulated Perylenetetraesters	Journal of Material Chemistry C	2017	5	-	1767	1781
A. Pal, G. Natu, K. Ahmad, A. Chattopadhyay	Phosphorus induced crystallinity in carbon dots for solar light assisted seawater desalination	Journal of Materials Chemistry A	2018	6	9	4111	4118
A. M. Rather, N. Jana, P. Hazarika, U. Manna	Sustainable polymeric material for the facile and repetitive removal of oil-spills through the complementary use of both selective-absorption and active-filtration processes	Journal of Materials Chemistry A	2017	5	-	23339	23348
A. M. Rather, U. Manna	Stretchable and Durable Superhydrophobicity That Acts both in Air and Under Oil	Journal of Materials Chemistry A	2017	5	-	15208	15216
S. Basu, U. Goswami, A. Paul, A. Chattopadhyay	Crystalline assembly of gold nanoclusters for mitochondria targeted cancer theranostics	Journal of Materials Chemistry B	2018	6	11	1650	1657
S. Pramanik, S. Bhandari, A. Chattopadhyay	Zinc quinolate complex decorated CuInS ₂ /ZnS core/shell quantum dots for white light emission	Journal of Materials Chemistry C	2017	5	29	7291	7296
U. Goswami, S. Basu, A. Paul, S. S. Ghosh, A. Chattopadhyay	White light emission from gold nanoclusters embedded bacteria	Journal of Materials Chemistry C	2017	5	47	12360	12364
A. Singh, A. Dey, D. Das, P. K. Iyer	Combined influence of plasmonic metal nanoparticles and dual cathode buffer layers for highly efficient rrP3HT:PCBM-based bulk heterojunction solar cells	Journal of Materials Chemistry C	2017	5	26	6578	6587
M. P. Singh, J. B. Baruah	Modulation of dual fluorescence modes and emissions of 2-(1,4-dioxo-1,4-dihydro-naphthalen-2-yl-amino)benzoic acid	Journal of Molecular Structure	2017	1149	-	315	322
S. A. Bhat, A. A. Dar, S. Ahmad, A. T. Khan	Structural, vibrational and NMR spectroscopic investigations of newly synthesized 3-((ethylthio)(4-nitrophenyl)methyl)-1H-indole	Journal of Molecular Structure	2017	1145	-	94	101
A. Mandal, B. K. Patel	Supramolecular features of 2-(chlorophenyl)-3-[(chlorobenzylidene)-amino]-2,3-dihydroquinazolin-4(1H)-ones: A combined experimental and computational study	Journal of Molecular Structure	2018	1155	-	78	89

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A. Mandal, B. K. Patel	Rationalization of weak interactions in two fluorescence active imidazo-[1,5-a]-pyridine derivatives: A combined experimental and computational study	Journal of Molecular Structure	2017	1147	-	735	746
R. Gattu, P. R. Bagdi, R. S. Basha, A. T. Khan	Camphorsulfonic Acid Catalyzed One-Pot Three-Component Reaction for the Synthesis of Fused Quinoline and Benzoquinoline Derivatives	Journal of Organic Chemistry	2017	82	23	12416	12429
P. Sau, A. Rakshit, A. Modi, A. Behera, B. K. Patel	Three Sequential C-N Bond Formations: Tert-Butyl Nitrite as a N1 Synthron in a Three Component Reaction Leading to Imidazo[1,2-a]quinolines and Imidazo[2,1-a]isoquinolines	Journal of Organic Chemistry	2018	83	2	1056	1064
P. Sau, S. K. Santra, A. Rakshit, B. K. Patel	Tert-Butyl Nitrite-Mediated Domino Synthesis of Isoxazoles and Isoxazoles from Terminal Aryl Alkenes and Alkynes	Journal of Organic Chemistry	2017	82	12	6358	6365
S. Pradhan, P. B. De, T. Punniyamurthy	Copper(II)-Mediated Chelation-Assisted Regioselective N-Naphthylation of Indoles, Pyrazoles and Pyrrole through Dehydrogenative Cross-Coupling	Journal of Organic Chemistry	2017	82	9	4883	4890
S. S. Bag, S. De	Isothiocyanate Alanine as a Synthetic Intermediate for the Synthesis of Thioureayl Alanines and Subsequent Aminotetrazolyl Alanines	Journal of Organic Chemistry	2017	82	23	12276	12285
S. Sahu, Ila, B. Shankar, M. Sathiyendiran, G. Krishnamoorthy	Molecular aggregation to obtain conformer specific enhanced emissions from a triple emissive ESIPT dye	Journal of Photochemistry and Photobiology A: Chemistry	2018	353	-	416	423
S. S. Bag, A. Yashmeen	Sensing the chemical cleavage of fluorescent β -lactams via FRET/exciplex or excimer emission	Journal of Photochemistry and Photobiology A: Chemistry	2018	353	-	464	468
A. Phukon, N. Nandi, K. Sahu	Pre-micellar interaction or direct monomer to micelle transition for zwitterionic sulfobetaine surfactant in water? A comparative fluorescence study with cationic surfactant	Journal of Photochemistry and Photobiology A: Chemistry	2018	357	-	140	148

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D. K. Sahu, K. Sahu	Characterizing optical properties, composition of stabilizer-free copper nanoclusters and its interaction with bovine serum albumin	Journal of Photochemistry and Photobiology A: Chemistry	2017	347	-	17	25
S. S. Bag, M. K. Pradhan, S. Talukdar	Trifunctional fluorescent unnatural nucleoside: Label free detection of T-T/C-C base mismatches, abasic site and bulge DNA	Journal of Photochemistry and Photobiology B: Biology	2017	173	-	165	169
B. Pramanik, D. Das	Aggregation Induced Emission or Hydrolysis by Water? The Case of Schiff Bases in Aqueous Organic Solvents	Journal of Physical Chemistry C	2018	122	6	3655	3661
T. Hossen, K. Sahu	New Insights on Hydrogen-Bond-Induced Fluorescence Quenching Mechanism of C102-Phenol Complex via Proton Coupled Electron Transfer	Journal of Physical Chemistry A	2018	122	9	2394	2400
A. Dutta, A. Chattopadhyay	Surface and Tip-Enhanced Raman Spectroscopy at the Plasmonic Hot Spot of a Coordination Complex-Conjugated Gold Nanoparticle Dimer	Journal of Physical Chemistry C	2017	121	34	18854	18861
P. Gopikrishna, D. Das, L. R. Adil, P. K. Iyer	Saturated and Stable White Electroluminescence from Linear Single Polymer Systems Based on Polyfluorene and Mono-Substituted Dibenzofulvene Derivatives	Journal of Physical Chemistry C	2017	121	33	18137	18143
F. G. Cantú Reinhard, P. Barman, G. Mukherjee, J. Kumar, D. Kumar, D. Kumar, C. V. Sastri, S. P. De Visser	Keto-Enol Tautomerization Triggers an Electrophilic Aldehyde Deformylation Reaction by a Nonheme Manganese(III)-Peroxo Complex	Journal of the American Chemical Society	2017	139	50	18328	18338
Y. Gao, C. Guan, M. Zhou, A. Kumar, T. J. Emge, A. M. Wright, K. I. Goldberg, K. Krogh-Jespersen, A. S. Goldman	β -Hydride Elimination and C-H Activation by an Iridium Acetate Complex, Catalyzed by Lewis Acids. Alkane Dehydrogenation Cocatalyzed by Lewis Acids and [2,6-Bis(4,4-dimethyloxazoliny)-3,5-dimethylphenyl]iridium	Journal of the American Chemical Society	2017	139	18	6338	6350
S. Roy, S. Pramanik, S. Bhandari, A. Chattopadhyay	Surface complexed ZnO quantum dot for white light emission with controllable chromaticity and color temperature	Langmuir	2017	33	51	14627	14633
S. Paul, A. Roy, S. J. Deka, S. Panda, G. N. Srivastava, V. Trivedi, D. Manna	Synthesis and evaluation of oxindoles as promising inhibitors of the immunosuppressive enzyme indoleamine 2, 3-dioxygenase 1	MedChemComm	2017	8	8	1640	1654

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S. Nath, S. K. Pathak, J. De, S. K. Pal, A. S. Achalkumar	Star-shaped π -Gelators based on oxadiazole and thiadiazoles: A structure-property correlation	Molecular Systems Design and Engineering	2017	2	-	478	489
A. M. Rather, S. Mahato, K. Maji, N. Gogoi, U. Manna	"Reactive" Nano-complex Coated Medical Cotton: A Facile Avenue for Tailored Release of Small Molecules	Nanoscale	2017	9	-	16154	16165
N. Meher, P. K. Iyer	Pendant chain engineering to fine-tune the nanomorphologies and solid state luminescence of naphthalimide AIEEgens: Application to phenolic nitro-explosive detection in water	Nanoscale	2017	9	22	7674	7685
Tarai A., Baruah J.B.	Different self-assemblies and absorption-emission properties of the picrate salts of aromatic amine or heterocycle linked oximes	New Journal of Chemistry	2018	42	6	4757	4765
A. Tarai, J. B. Baruah	Competing phenol-imidazole and phenol-phenol interactions in the flexible supramolecular environment of: N, N'-bis(3-imidazol-1-ylpropyl) naphthalenediimide causing domain expansion	New Journal of Chemistry	2017	41	19	10750	10760
S. Nath, S. K. Pathak, B. Pradhan, R. K. Gupta, K. A. Reddy, G. Krishnamoorthy, A. S. Achalkumar	A sensitive and selective sensor for picric acid detection with a fluorescence switching response	New Journal of Chemistry	2018	42	7	5382	5394
S. S. Bag, S. Jana	Axially chiral amino acid scaffolds as efficient fluorescent discriminators of methanol-ethanol	New Journal of Chemistry	2017	41	22	13391	13398
B. Pradhan, R. K. Gupta, S. K. Pathak, J. De, S. K. Pal, A. S. Achalkumar	Columnar self-assembly of luminescent bent-shaped hexacatenars with a central pyridine core connected with substituted 1,3,4-oxadiazole and thiadiazoles	New Journal of Chemistry	2018	42	-	3781	3798
S. K. Pathak, S. Nath, J. De, S. K. Pal, A. S. Achalkumar	Contrasting effects of heterocycle substitution and branched tails in the arms of star-shaped molecules	New Journal of Chemistry	2017	41	-	4680	4688
S. K. Pathak, S. Nath, M. Gupta, S. K. Pal, A. S. Achalkumar	Effect of regioisomerism on the mesomorphic and photophysical behavior of oxadiazole-based tris(N-salicylideneaniline)s: Synthesis and characterization	New Journal of Chemistry	2017	41	-	9908	9917
R. Maity, S. C. Pan	Organocatalytic asymmetric Michael/hemiacetalization/acyl transfer reaction of α -nitroketones with o-hydroxycinnamaldehydes: synthesis of 2,4-disubstituted chromans	Organic & Biomolecular Chemistry	2018	16	-	1598	1608

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R. Maity, S. C. Pan	Enantioselective aminocatalytic synthesis of tetrahydropyrano[2,3-c]pyrazoles via a domino Michael-hemiacetalization reaction with alkylidene pyrazolones	Organic & Biomolecular Chemistry	2017	15	-	8032	8036
C. Gharui, S. Singh, S. C. Pan	Chiral phosphoric acid catalyzed enantioselective annulation of acyclic enecarbamates to in situ-generated ortho-quinone methides	Organic & Biomolecular Chemistry	2017	15	-	7272	7276
K. Mahato, P. R. Bagdi, A. T. Khan	K ₂ CO ₃ catalyzed regioselective synthesis of thieno[2,3-b] thiochromen-4-one oximes: Access to the corresponding amine and nitroso derivatives	Organic and Biomolecular Chemistry	2017	15	26	5625	5634
S. S. Bag, M. K. Pradhan, S. Talukdar	Tetrazolylpyrene unnatural nucleoside as a human telomeric multimeric G-quadruplex selective switch-on fluorescent sensor	Organic and Biomolecular Chemistry	2017	15	48	10145	10150
A. Singh, A. Dey, P. K. Iyer	Influence of molar mass ratio, annealing temperature and cathode buffer layer on power conversion efficiency of P3HT:PC71BM based organic bulk heterojunction solar cell	Organic Electronics: physics, materials, applications	2017	51	-	428	434
T. B. Raju, J. V. Vaghasiya, M. A. Afroz, S. S. Soni, P. K. Iyer	Twisted donor substituted simple thiophene dyes retard the dye aggregation and charge recombination in dye-sensitized solar cells	Organic Electronics: physics, materials, applications	2017	50	-	25	32
A. Modi, P. Sau, B. K. Patel	Base-Promoted Synthesis of Quinoline-4(1H)-thiones from o-Alkynylanilines and Aroyl Isothiocyanates	Organic Letters	2017	19	22	6128	6131
D. Mahesh, V. Satheesh, S. V. Kumar, T. Punniyamurthy	Copper(II)-Catalyzed Oxidative Coupling of Anilines, Methyl Arenes, and TMSN ₃ via C(sp ³ /sp ²)-H Functionalization and C-N Bond Formation	Organic Letters	2017	19	24	6554	6557
S. Panda, P. Maity, D. Manna	Transition Metal, Azide, and Oxidant-Free Homo- and Heterocoupling of Ambiphilic Tosyl hydrazones to the Regioselective Triazoles and Pyrazoles	Organic Letters	2017	19	7	1534	1537
A. Purkait, S. K. Roy, H. K. Srivastava, C. K. Jana	Metal-Free Sequential C(sp ²)-H/OH and C(sp ³)-H Aminations of Nitrosoarenes and N- Heterocycles to Ring-Fused Imidazoles	Organic Letters	2017	19	-	2540	2543
G. Borgohain, B. Mandal, S. Paul	Molecular dynamics approach to understand the denaturing effect of millimolar concentration of dodine on λ -repressor and counteraction by trehalose	Phys. Chem. Chem. Phys.	2017	19	-	13160	13171

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S.K. Behera, G. Krishnamoorthy	Perturbation of cationic equilibrium by cucurbit-7-uril	Physical Chemistry Chemical Physics	2017	19	29	19234	19242
A. S. Patra, G. Gogoi, R. K. Sahu, M. Qureshi	Modulating the electronic structure of lanthanum manganite by ruthenium doping for enhanced photocatalytic water oxidation	Physical Chemistry Chemical Physics	2017	19	19	12167	12174
A. Phukon, K. Sahu	How do the interfacial properties of zwitterionic sulfobetaine micelles differ from those of cationic alkyl quaternary ammonium micelles? An excited state proton transfer study	Physical Chemistry Chemical Physics	2017	19	46	31461	31468
S. Das, S. Paul	Exploring the binding sites and binding mechanism for hydrotrope encapsulated griseofulvin drug on γ -tubulin protein	Plos One	2018	13	-	-	-
M. P. Singh, J. B. Baruah	Stable host-guest complexes of bis-2,6-pyridinedicarboxylate iron(III) with dihydroxybenzenes	Polyhedron	2017	138	-	103	108
A. Mandal, B. K. Patel	Molecular structures and fluorescence property of Zn(II), Cd(II) complexes of 3-pyridyl-5-aryl-(1H)-1,2,4-triazoles	Polyhedron	2017	132	-	112	122
M. Saha, K. M. Vyas, L. M. D. R.S. Martins, N. M. R. Martins, A. J. L. Pombeiro, S. M. Mobin, D. Bhattacharjee, K. P. Bhabak, S. Mukhopadhyay	Copper(II) tetrazolato complexes: Role in oxidation catalysis and protein binding	Polyhedron	2017	132	-	53	63
R. Ratha, A. Singh, T. B. Raju, P. K. Iyer	Insight into the synthesis and fabrication of 5,6-alt-benzothiadiazole-based D- π -A-conjugated copolymers for bulk-heterojunction solar cell	Polymer Bulletin	2017	-	-	-	-
S. Ahmed, B. Pramanik, K. N. A. Sankar, A. Srivastava, N. Singha, P. Dowari, A. Srivastava, K. Mohanta, A. Debnath, D. Das	Solvent Assisted Tuning of Morphology of a Peptide-Perylenediimide Conjugate: Helical Fibers to Nano-Rings and their Differential Semiconductivity	Scientific Reports	2017	7	-	9485	-
N. V. V. Subbarao, S. Mandal, M. Gedda, P. K. Iyer, D. K. Goswami	Effect of temperature on hysteresis of dipolar dielectric layer based organic field-effect transistors: A temperature sensing mechanism	Sensors and Actuators, A: Physical	2018	269	-	491	499

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R. Singh, G. Das	Fluorogenic detection of Hg ²⁺ and Ag ⁺ ions via two mechanistically discrete signal genres: A paradigm of differentially responsive metal ion sensing	Sensors and Actuators, B: Chemical	2018	258	-	478	483
A. Das, S. Biswas	A multi-responsive carbazole-functionalized Zr(IV)-based metal-organic framework for selective sensing of Fe(III), cyanide and p-nitrophenol	Sensors and Actuators, B: Chemical	2017	250	-	121	131
R. Dalapati, S. N. Balaji, V. Trivedi, L. Khamari, S. Biswas	A dinitro-functionalized Zr(IV)-based metal-organic framework as colorimetric and fluorogenic probe for highly selective detection of hydrogen sulphide	Sensors and Actuators, B: Chemical	2017	245	-	1039	1049
V. S. Varma, S. Das, C. V. Sastri, A. S. Kalamdhad	Microbial degradation of lignocellulosic fractions during drum composting of mixed organic waste	Sustainable Environment Research	2017	27	6	265	272
B. Mondal, S. C. Pan	Organocatalytic Asymmetric Synthesis of Pentasubstituted Tetrahydrothiopyrans Bearing a Quaternary Centre through a Double Michael Reaction	Synlett	2018	29	5	576	580
B. Sharma, A. Singh, M. A. Afroz, P. K. Iyer, J. Jacob	Direct arylation polymerization approach for the synthesis of narrow band gap cyclopentadithiophene based conjugated polymer and its application in solar cell devices	Synthetic Metals	2017	226	-	56	61
S. Ghosh, C. K. Jana	Metal-Free Thermal Activation of Molecular Oxygen Enabled Direct α -CH ₂ -Oxygenation of Free Amines	The Journal of Organic Chemistry	2018	83	-	260	266
S. C. Sahoo, M. Joshi, S. C. Pan	Diastereoselective Desymmetrization of Prochiral Cyclopentenediones via Cycloaddition Reaction with N-Phenacylbenzothiazolium Bromides	The Journal of Organic Chemistry	2017	82	23	12763	12770
M. Balha, B. Mondal, S. C. Sahoo, S. C. Pan	Organocatalytic Asymmetric Michael-Hemiacetalization Reaction Between 2-Hydroxyacetophenones and Enals: A Route to Chiral beta,gamma-Disubstituted gamma-Butyrolactones	The Journal of Organic Chemistry	2017	82	12	6409	6416
K. Mondal, S. C. Pan	Synthesis of 2,5-Disubstituted Furans from Sc(OTf) ₃ Catalyzed Reaction of Aryl Oxiranediester with gamma-Hydroxyenones	The Journal of Organic Chemistry	2017	82	8	4415	4421

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M. A. Cyrille, M. David, L. Andre, M. Ebenezer, S. Gokhale	Evaluating impacts of two-wheeler emissions on roadside air quality in the vicinity of a busy traffic intersection in Douala, Cameroon	Air Quality, Atmosphere and Health	2017	10	4	521	532
T. V. Bharat, Y. Gapak	Hydration kinetics of bentonite buffer material: Influence of vapor pressure, bentonite plasticity, and compaction density	Applied Clay Science	2018	157	-	41	50
Praisly Terangpi, Saswati Chakraborty	Adsorption kinetics and equilibrium studies for removal of acid azo dyes by aniline formaldehyde condensate	Applied Water Science, (Springer)	2017	7	-	3661	3671
G. Das, B. Hazra, A. Garg, C. W. W. Ng	Impact of hydrological and mechanical correlations on the reliability of vegetated slopes	ASCE-International Journal of Geomechanics	2017	3	4	1	13
A. Prakash, B. Hazra, S. Sreedeeep	Probabilistic analysis of water retention characteristic curve of fly ash	ASCE-International Journal of Geomechanics	2017	17	12	-	-
Anurag Sharma, Bimlesh Kumar	High Order Velocity Moments of Turbulent boundary layers in Seepage Affected Alluvial Channel	ASME Journal of Fluids Engineering	2018	doi: 10.1115/1.4039253		-	-
G. Das, B. Hazra, A. Garg, C. W. W. Ng, H. Lateh, N. Avani	Bivariate probabilistic modelling of hydro-mechanical properties of vegetated soil	ASTM-Advances in Civil Engineering Materials	2017	6	1	235	257
C. Veluchamy, A. S. Kalamdhad	Influence of pretreatment techniques on anaerobic digestion of pulp and paper mill sludge	Bio resource Technology	2017	245	-	1206	1219
C. Veluchamy, V. W. Raju, A. S. Kalamdhad	Prerequisite - an Electro hydrolysis pretreatment for anaerobic digestion of lignocellulose waste material	Bio resource Technology	2017	235	-	274	280
V. B. Barua, V. W. Raju, S. Lippold, A. S. Kalamdhad	Electro hydrolysis Pretreatment of Water Hyacinth for Enhanced Hydrolysis	Bio resource Technology	2017	238	-	733	737
C. Veluchamy, A. S. Kalamdhad	Enhanced methane production and its kinetics model of thermally pretreated lignocellulose waste material	Bio resource Technology	2017	241	-	1	9
C. Veluchamy, A. S. Kalamdhad	Electro hydrolysis pretreatment for enhanced methane production from lignocellulose waste pulp and paper mill sludge and its kinetics	Bio resource Technology	2018	245	-	1206	1219
M. Jain, R. Jambulkar, A. S. Kalamdhad	Biochar amendment for batch composting of nitrogen rich organic waste: Effect on degradation kinetics, composting physics and nutritional properties	Bio resource Technology	2018	253	-	204	213

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M. Jain, A. S. Kalamdhad	A review on management of hydrilla verticillata and its utilization as a potential nitrogen-rich biomass for compost or biogas production	Bio resource Technology Reports (Online)	2018	-	-	-	-
S. Padhi, S. Gokhale	Treatment of gaseous volatile compounds using a rotating biological filter	Bioresource Technology	2017	244	1	270	280
V. B. Barua, A. S. Kalamdhad	Effect of various types of thermal pretreatment techniques on the hydrolysis, compositional analysis and characterization of water hyacinth	Bioresource Technology	2017	227	-	147	154
B. Saha, M. Khwairakpam, A. S. Kalamdhad	Vermicomposting and anaerobic digestion- viable alternative options for terrestrial weed management – a review	Biotechnology Reports	2018	17	-	70	76
C. Choudhury, T. V. Bharat	Wetting induced collapse behavior of kaolinite: influence of fabric and inundation pressure	Canadian Geotechnical Journal	2018	-	-	-	-
Anurag Sharma, Bimlesh Kumar	Double averaged turbulence characteristics of alluvial channel with downward seepage	Canadian Journal of Civil Engineering	2017	https://doi.org/10.1139/cjce-2016-0581		-	-
Mahesh Patel, Shantanaba Majumder, Bimlesh Kumar	Statistical description of morphological characteristics of bed forms in seepage affected alluvial channels	Canadian Journal of Civil Engineering	2017	https://doi.org/10.1139/cjce-2017-0356		-	-
G. Das, B. Hazra, A. Garg, C. W. W. Ng	Stochastic hydro-mechanical stability of vegetated slopes: An integrated copula based framework	Catena	2017	160	-	124	133
Mahesh Patel, Bimlesh Kumar	Flow and bed forms dynamics in an alluvial channel with downward seepage	Catena	2017	158	-	210	234
G. Goel, A. S. Kalamdhad	An investigation on use of paper mill sludge in brick manufacturing	Construction & Building Materials	2017	148	-	334	343
G. Goel, A. S. Kalamdhad	Degraded municipal solid waste as partial substitute for manufacturing fired bricks	Construction & Building Materials	2017	155	-	259	266
M. L. Pattanaik, R. Choudhary, B. Kumar	Clogging Evaluation of Open Graded Friction Course Mixes with EAF Steel Slag and Modified Binders	Construction and Building Materials	2017	159	-	220	233
S. M. Laskar, S. Talukdar	Preparation and tests for workability, compressive and bond strength of ultra-fine slag based geopolymer as concrete repairing agent	Construction and Building Materials, Elsevier	2017	154	-	176	190
D. C. Rai, V. Singhal, H. B. Kaushik	M6.7 January 4, 2016 Imphal Earthquake: Dismal Performance of Publicly-Funded Buildings	Current Science	2017	113	12	2341	2350

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P. Cahill, B. Hazra, R. Karoumi, A. Mathewson, V. Pakrashi	Data of piezoelectric vibration energy harvesting of a bridge undergoing vibration testing and train passage	Data in Brief-Elsevier	2018	17	-	261	266
J. Taipodia, D. Baglari, A. Dey	Resolution of dispersion image obtained from active MASW survey	Disaster Advances	2017	10	11	34	45
Mahesh Patel, Shantanaba Majumder, Bimlesh Kumar	Effect of seepage on flow and bedforms dynamics	Earth Surface Processes and Landforms	2017	42	12	1807	1819
Bandita Barman, Bimlesh Kumar, Arup Kumar Sharma	Turbulent Flow Structures and Geomorphic Characteristics of a Mining Affected Alluvial Channel	Earth Surface Processes and Landforms	2018	https://doi.org/10.1002/esp.4355		-	-
S. Kaushik, K. Dasgupta	Seismic Behaviour of Slab-Structural Wall Junction of RC Building	Earthquake Engineering and Engineering Vibrations	2017	-	-	-	-
T. V. Ngo, A. Dutta, S. K. Deb,	Evaluation of horizontal stiffness of fibre-reinforced elastomeric isolators	Earthquake Engineering and Structural Dynamics (Wiley Inter-Science)	2017	46	-	1747	1767
S. Das, B. Hazra	Frequency dependent principal component analysis of multi-component earthquake ground motions	Earthquake Engineering and Structural Dynamics	2017	https://doi.org/10.1002/eqe.3008		-	-
V. Joshi, H. B. Kaushik	Historic Earthquake Resilient Structures in Nepal and other Himalayan Regions and Their Seismic Restoration	Earthquake Spectra	2017	33	S1	S299	S319
V. S. Varma, S. Nashine, C. V. Sastri, A. S. Kalamdhad	Influence of carbide sludge on microbial diversity and degradation of lignocellulose during In-vessel composting of agricultural waste	Ecological Engineering	2017	101	-	155	161
J. Hazarika, U. Ghosh, A. S. Kalamdhad, M. Khwairakpam, J. Singh	Transformation of elemental toxic metals into immobile fractions in paper mill sludge through rotary drum composting	Ecological Engineering	2017	101	-	185	192
M. Jain, A. S. Kalamdhad	Composting physics: A degradation process determining tool for industrial sludge	Ecological Engineering	2018	116	-	14	20
Bandita Barman, Anurag Sharma, Bimlesh Kumar, Arup Kumar Sharma	Multi scale characterization of Migrating Sand Wave in Mining Induced Alluvial channel	Ecological Engineering	2017	102	-	199	206

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Sachin Kumar Tomar, Saswati Chakraborty	Characteristics of aerobic granules treating phenol and ammonia at different cycle time and up flow liquid velocity. International Bio deterioration and Biodegradation	Elsevier	2018	127	-	113	123
T. Choudhury, H. B. Kaushik	Seismic Fragility of Open Ground Storey RC Frames with Wall Openings for Vulnerability Assessment	Engineering Structures	2018	155	-	345	357
Rutuja Chavan, Bimlesh Kumar	Prediction of Scour depth and dune morphology around Circular Bridge piers in Seepage affected Alluvial Channels	Environmental Fluid Mechanics	2018	DOI: 10.1007/s10652-018-9574-z		-	-
I. Vishan, S. Senthilkumar, A. S. Kalamdhad	Bio sorption of lead using Bacillus badius AK strain isolated from compost of green waste (water hyacinth)	Environmental Technology	2017	38	-	1812	1822
Biju Prava Sahariah, J. Anandkumar, Saswati Chakraborty	Pyridine influence on sequential anaerobic-anoxic-aerobic FMBR system for phenol, thiocyanate and ammonia removal	Environmental Technology	2017	https://doi.org/10.1080/09593330.2017.1340344		-	-
Biju Prava Sahariah, J. Anandkumar, Saswati Chakraborty	Stability of continuous and fed batch sequential anaerobic-anoxic-aerobic moving bed bioreactor systems at phenol shock load application	Environmental Technology	2017	DOI: 10.1080/09593330.2017.1343388		-	-
Anurag Sharma, Bimlesh Kumar	Structure of Turbulence over Non Uniform Sand Bed Channel with downward seepage	European Journal of Mechanics - B/Fluids	2017	65	-	530	551
B. Sharma, D. S. Rishi, B. K. Mudai, Rajib Kumar Bhattacharjya	Influence of clay lens on contaminant transport in unconfined coastal aquifers	European Water	2017	58	-	359	364
R. Someswaran, S. A. Kartha	Unsaturated Physical Non-equilibrium Contaminant Transport Modeling Using Modified FEMWATER	Fluid Mechanics and Fluid Power - Contemporary Research	2017	-	-	-	-
V. B. Barua, A. S. Kalamdhad	Anaerobic biodegradability test of water hyacinth after microbial pretreatment to optimize the ideal F/M ratio	Fuel	2018	217	-	91	97
Soham Banerjee, Abhishek Kumar	Determination of Seismic Wave Attenuation for the Garhwal Himalayas, India	Geosciences Research	2017	DOI: 10.22606/gr.2017.22005		-	-
A. Kumar, Joy K. Mondal	Newly Developed MATLAB Based Code for Equivalent Linear Site Response Analysis	Geotechnical and Geological Engineering	2017	DOI 10.1007/s10706-017-0246-4		-	-

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N. H. Harinarayan, Abhishek Kumar	Seismic Site Classification of Recording Stations in Tarai Region of Uttarakhand, from Multiple Approaches	Geotechnical and Geological Engineering	2017	-	-	1	16
A. M. Krishna, A. M. Kumar, A. K. Baruah	Stone Columns/Granular Piles for Improving Liquefiable Sites: Case studies	Geotechnical Engineering Journal of the SEAGS & AGSSEA	2018	49	1	-	-
R. Acharyya, A. Dey	Finite element investigation of the bearing capacity of square footings resting on sloping ground	INAE Letters	2017	2	3	97	105
Soham Banerjee, Abhishek Kumar	Determination of S and Coda Wave Attenuation in Selected Regions of Lower and Northern Assam Within North Eastern India	Indian Geotechnical Journal	2017	DOI: 10.1007/s40098-017-0259-1		-	-
A. Jana, A. Dey	Combined functioning of geotextile as barrier and drainage material in unsaturated earth retaining structures	Indian Geotechnical Journal	2017	(DOI: 10.1007/s40098-017-0268-0)		-	-
S. S. Kumar, A. Murali Krishna, A. Dey	High strain dynamic properties of perfectly dry and saturated cohesionless soil	Indian Geotechnical Journal	2017	DOI: 10.1007/s40098-017-0255-5		-	-
P. Talukdar, R. Bora, A. Dey	Numerical investigation of hill slope instability due to seepage and anthropogenic activities	Indian Geotechnical Journal	2017	DOI: 10.1007/s40098-017-0272-4		-	-
J. Taipodia, D. Baglari, A. Dey	Recommendations for generating dispersion images of optimal resolution from Active MASW survey	Innovative Infrastructure Solutions	2018	3	-	1	19
N. Sharma, K. Dasgupta, A. Dey	A state-of-the-art review on seismic SSI studies on building structures	Innovative Infrastructure Solutions	2018	3	-	1	16
C. Veluchamy, A. S. Kalamdhad	Biochemical methane potential test for pulp and paper mill sludge with different food/microorganisms ratios and its kinetics	International Biodeterioration & Biodegradation	2017	117	-	197	204
S. Padhi, S. Gokhale	Benzene biodegradation by indigenous mixed microbial culture: Kinetic modelling and process optimization	International Biodeterioration and Biodegradation	2017	119	-	511	519
B. F. Ahmed, K. Dasgupta	Bridge Analytical Fragility development methodologies - A state of the Art review	International Journal of Bridge Engineering	2017	5	3	69	122
A. Biswas, A. M. Krishna	Geocell-Reinforced Foundation Systems: A Critical Review	International Journal of Geosynthetics and Ground Engineering	2017	DOI: 10.1007/s40891-017-0093-7		-	-

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S. K. Patel, B. Singh	Experimental Investigation on the Behaviour of Glass Fibre-Reinforced Cohesive Soil for Application as Pavement Subgrade Material.	International Journal of Geosynthetics and Ground Engineering	2017	-	-	-	-
S. S. Kumar, A. Dey, A. M. Krishna	Importance of site-specific dynamic soil properties for seismic ground response studies	International Journal of Geotechnical Earthquake Engineering	2018	DOI: 10.4018/IJGEE.2018010105		-	-
D. Basu, A. Dey, S. S. Kumar	One-dimensional effective stress non-Masing nonlinear ground response analysis of IIT Guwahati	International Journal of Geotechnical Earthquake Engineering	2017	8	1	1	27
S. K. Patel, B. Singh	Shear Strength Response of Glass Fibre-Reinforced Sand with Varying Compacted Relative Density	International Journal of Geotechnical Engineering	2017	-	-	-	-
T. V. Bharat, P. Das, V. Buragadda	Specific ion effects on surrogate compatibility indices of bentonite for hydraulic barrier applications	International Journal of Geotechnical Engineering	2017	-	-	-	-
R. Acharyya, A. Dey, B. Kumar	Finite element and ANN-based prediction of bearing capacity of square footing resting on the crest of c-φ soil slope	International Journal of Geotechnical Engineering	2018	DOI: 10.1080/19386362.2018.1435022		-	-
A. K. Mishra, A. Sridharan	A critical study of shrinkage behaviour of clays	International Journal of Geotechnical Engineering, Taylor and Francis	2017	-	-	-	-
A. Biswas, A. M. Krishna	Behavior of Geocell-Geogrid Reinforced Foundations on Clay Subgrades of Varying Strengths	International Journal of Physical Modelling in Geotechnics	2017	-	-	-	-
D. Sharma, K. D. Yadav, V. S. Varma, A. S. Kalamdhad	Evolution of chemical and biological characterization during agitated pile composting of flower waste	International Journal of Recycling of Organic Waste in Agriculture	2017	6	-	89	98
I. Vishan, S. Senthilkumar, A. S. Kalamdhad	Isolation and Identification of bacteria during rotary drum composting of green waste (Water hyacinth)	International Journal of Recycling of Organic Waste in Agriculture	2017	6	-	245	253
Anurag Sharma, Bimlesh Kumar	Sheet Flow Hydrodynamics over Non-Uniform Sand Bed Channel	International Journal of Sediment Research	2018	https://doi.org/10.1016/j.ijsrc.2018.01.004		-	-

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M. L. Patton, K. D. Singh	Buckling of fixed-ended concrete-filled steel columns under axial compression.	International Journal of Steel Structures	2017	17	-	1	13
Ranjan Kumar Hasda, Rajib Kumar Bhattacharjya, Fouad Bennis,	Modified Genetic Algorithms for Solving Facility Layout Problems	International Journal on Interactive Design and Manufacturing	2017	11	3	713	725
J. Dutta, S. Gokhale	Field investigation of carbon dioxide (CO ₂) fluxes and organic carbon from a conserved paddy field of North-East India	International Soil & Water Conservation Research	2017	5	-	325	334
Subhrangshu Purkayastha, Bimlesh Kumar	Analytical solution of the one-dimensional contaminant transport equation in groundwater with time varying boundary conditions	ISH Journal of Hydraulic Engineering	2018	https://doi.org/10.1080/09715010.2018.1453879		-	-
Anurag Sharma, Bimlesh Kumar	Boundary Layer Development over Non-Uniform Sand Rough Bed Channel	ISH Journal of Hydraulic Engineering	2017	https://doi.org/10.1080/09715010.2017.1391133		-	-
Srinivasa Rao Botsa, Kaustubh Dasgupta	Influence of Staircase and Elevator Core Location on the Seismic Capacity of an RC Frame Building	Journal of Architectural Engineering, ASCE	2017	23	4	5017007	05017007-8
C. Veluchamy, A. S. Kalamdhad	A mass diffusion model on the effect of moisture content for solid-state anaerobic digestion	Journal of Cleaner Production	2017	162	-	371	379
V. B. Barua, A. S. Kalamdhad	Biochemical methane potential test of untreated and hot air oven pretreated water hyacinth: A comparative study	Journal of Cleaner Production	2017	166	-	273	284
C. Veluchamy, A. S. Kalamdhad	Enhancement of hydrolysis of lignocellulose waste pulp and paper mill sludge through different heating processes on thermal pretreatment	Journal of Cleaner Production	2017	168	-	219	226
V. V. Kulkarni, A. K. Golder, P. K. Ghosh	Critical analysis and valorization potential of battery industry sludge: Speciation, risk assessment and metal recovery	Journal of Cleaner Production. (Elsevier)	2018	171	-	820	30
L. Goswami, A. Nath, S. Sutradhar, S. S. Bhattacharya, A. S. Kalamdhad, K. Vellingiri, Ki-Hyun Kim	Application of drum compost and vermicompost to improve soil health, growth, and yield parameters for tomato and cabbage plants	Journal of Environmental Management	2017	200	-	243	252
Subrat Kumar Mallick, Saswati Chakraborty	Treatment of synthetic refinery wastewater in anoxic aerobic sequential moving bed reactors and sulphur recovery	Journal of Environmental Science and Health	2017	52	13	1257	1268

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V. V. Kulkarni, A. K. Golder, P. K. Ghosh	Synthesis and characterization of carboxylic cation exchange bio-resin for heavy metal remediation	Journal of Hazardous Materials (Elsevier)	2018	341	-	207	2018
Y. Gapak, T. V. Bharat	Hysteretic water retention behaviour of bentonites	Journal of Hazardous, Toxic, and Radioactive Waste	2018	-	-	-	-
Sritam Swapnadarshi Sahu, Indu Siva Ranjani Gandhi, Selija Khwairakpam	State-of-the-Art Review on the Characteristics of Surfactants and Foam from Foam Concrete Perspective	Journal of Institution of Engineers India: Series A	2018	https://doi.org/10.1007/s40030-018-0288-5		1	15
Rutuja Chavan, Bimlesh Kumar	Experimental Investigation on Flow and Scour Characteristics around Tandem Piers in Sandy Channel with Downward Seepage	Journal of Marine Science and Application	2017	16	3	313	322
Rutuja Chavan, B. Venkataramana, P. Acharya, Bimlesh Kumar	Comparison of Scour and Flow characteristics around Circular and Oblong Bridge piers in Seepage affected Alluvial Channel	Journal of Marine Science and Application	2017	-	-	-	-
Anuj Kishor Budhkar, Akhilesh Kumar Maurya	Characteristics of lateral vehicular interactions in heterogeneous traffic with weak lane discipline	Journal of Modern Transport	2017	25		1	16
T. V. Ngo, S. K. Deb, A. Dutta	Mitigation of seismic vulnerability of a prototype low-rise masonry building using U-FREIs	Journal of Performance of Constructed Facilities, ASCE	2017	https://doi.org/10.1061/(ASCE)CF.1943-5509.0001136		-	-
Olympa Baro, Abhishek Kumar	Seismic Source characterization for the Shillong Plateau in Northeast India	Journal of Seismology	2017	DOI: 10.1007/s10950-017-9664-2		-	-
T. V. Ngo, S. K. Deb, A. Dutta	Effect of horizontal loading direction on performance of prototype square un-bonded fibre reinforced elastomeric isolator	Journal of Structural Control and Health Monitoring, (Wiley Inter-Science)	2017	doi: 10.1002/stc.2112		-	-
Sathishraj Mani, Bulu Pradhan	A study on compressive strength and corrosion behaviour of reinforcing steel in chloride contaminated fly ash based geopolymer concrete	Journal of Structural Engineering	2017	44	3	214	219
N. Akbary, M. Koch, A. S. Kalamdhad	Analysis of the biochemical methane potential (bmp) and batch reactor studies of primary sludge from a paper mill	Journal of Thai Interdisciplinary Research	2017	-	-	-	-

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Anuj Budhkar, Akhilesh Kumar Maurya	Overtaking decision modeling in heterogeneous and weak lane discipline traffic	Journal of the Eastern Asia Society for Transportation Studies	2017	-	-	-	-
Geetimuta Mahapatra, Akhilesh Kumar Maurya	Dynamic Parameters of Vehicles under Heterogeneous Traffic Stream with Non-Lane Discipline: An Experimental Study	Journal of Traffic and Transportation Engineering	2018	-	-	-	-
M. L. Pattanaik, R. Choudhary, B. Kumar	Evaluation of Frictional Pavement Resistance as a Function of Aggregate Physical Properties	Journal of Transportation Engineering, Part B: Pavements, ASCE	2017	143	2	4017003	-
V. V. Kulkarni, Animes Kumar Golder, P. K. Ghosh	Synergistic effect using a functionalized dual-site adsorbent in Pb(II) and Cu(II) uptake and comparison with mono-site resins	Journal of Water Process Engineering. (Elsevier)	2017	18	-	92	101
T. K. Deb, B. Singh	Response and Capacity of Monopod Caisson Foundation under Eccentric Lateral Loads	Marine Georesources & Geotechnology.	2017	-	-	-	-
Anurag Sharma, Ajay Kumar Maddirala, Bimlesh Kumar	Modified Singular Spectrum analysis for Despiking acoustic Doppler velocity meter (ADV) Data	Measurement	2018	117	-	339	346
C. Rainieri, A. Dey, G. Fabbrocino, F. Santucci de Magistris	Interpretation of experimentally measured dynamic response of an embedded wall by finite element models	Measurement	2017	104	-	316	325
M. Krishnan, B. Bhowmik, B. Hazra, V. Pakrashi	Real time damage detection using recursive principal components and time varying auto-regressive modeling	Mechanical Systems and Signal Processing	2017	101	-	549	574
P. Cahill, B. Hazra, R. Karoumi, A. Mathewson, V. Pakrashi	Vibration energy harvesting based monitoring of an operational bridge undergoing forced vibration and train passage	Mechanical Systems and Signal Processing	2018	106	-	265	283
J. Singh, A. S. Kalamdhad, J. R. Koduru	Potential degradation of hazardous dye Congo red by nano-metallic particulates synthesized from automobile shredder residue	Nanotechnology for Environmental Engineers	2017	-	-	-	-
Varsha Shivpure, Anurag Sharma, Bimlesh Kumar	Scale Invariance of Power Spectrum in Sediment Transport Mechanics	National Academy Science Letters	2018	DOI: 10.1007/s40009-018-0616-3		-	-
S. Mali, B. Singh	Behavior of Large Piled-Raft Foundation on Clay Soil	Ocean Engineering	2018	-	-	-	-
R. Choudhary, A. Kumar, K. Murkute	Properties of Waste Polyethylene Terephthalate (PET) Modified Asphalt Mixes: Dependence on PET Size, PET Content, and Mixing Process	Periodica Polytechnica Civil Engineering	2018	-	-	-	-

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A. Julaganti, R. Choudhary, A. Kumar	Rheology of Modified Binders under Varying Doses of WMA Additive-Sasobit	Petroleum Science and Technology	2017	35	10	975	982
A. Julaganti, R. Choudhary, A. Kumar	Moisture Susceptibility of WMA Mixes with Modified Bituminous Binders	Petroleum Science and Technology	2017	35	10	1014	1021
Archana Nair, George Mathew	Geochemical modelling of terrestrial igneous rock compositions using laboratory thermal emission spectroscopy with an overview on its applications to Indian Mars Mission	Planetary and Space Science	2017	140	-	62	73
N. Akbary, A. S. Kalamdhad, M. Koch	Anaerobic Digestion of Dewatered Primary Sludge (DPMS) from the Nagaon Paper Mill Morigaon Assam	Pollution Research	2017	36	2	159	167
S. B. Reddy, A. M. Krishna	Tyre Chips as Compressible Inclusions in Earth Retaining Walls	Proceedings of the Institution of Civil Engineers - Ground Improvement	2017	170	3	137	148
M. Krishnan, B. Bhowmik, A. Tiwari, B. Hazra	Online damage detection using Recursive Principal Component Analysis and Recursive Condition Indicators	Smart Materials and Structures, IOP	2017	26	8	-	-
D. P. Kumar, A. M. Krishna, S. Bhattacharya, G. Nikitas, M. Rouholamin	Dynamic Soil Properties for Seismic Ground Response Studies in Northeastern India	Soil Dynamics and Earthquake Engineering	2017	100	-	357	370
D. P. Kumar, S. Bhattacharya, A. M. Krishna, S. S. Kumar, K. Dasgupta	Seismic re-qualification of caisson supported major bridges – A case study of Saraighat bridge	Soil Dynamics and Earthquake Engineering	2017	100	-	200	270
V. L. Nithin, S. Das, H. B. Kaushik	Wavelet-based Simulation of Scenario-specific Nonstationary Accelerograms and their GMPE Compatibility	Soil Dynamics and Earthquake Engineering	2017	99	-	56	67
S. Bhattacharya, P. Dammala, S. Kumar, A. M. Krishna, K. Dasgupta	Scenario Based Seismic Re-Qualification of Caisson Supported Major Bridges "A Case Study of Saraighat Bridge"	Soil Dynamics and Earthquake Engineering	2017	100	-	270	275
S. S. Kumar, A. Murali Krishna, A. Dey	Evaluation of dynamic properties of sandy soil under high cyclic strains	Soil Dynamics and Earthquake Engineering	2017	97	-	157	167
K. Mukherjee, A. K. Mishra	The impact of scrapped tyre chips on the mechanical properties of liner materials, Environmental Processes	Springer	2017	4	1	219	233

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N. H. Harinarayan, Abhishek Kuma	Determination of NEHRP Site Class of Seismic Recording Stations in the Northwest Himalayas and Its Adjoining Area Using HVSR Method, Pure and Applied Geophysics	Springer International	2018	175	1	89	107
B. Bhowmik, M. Krishnan, B. Hazra, V. Pakrashi	Real-time unified single-and multi-channel structural damage detection using recursive singular spectrum analysis	Structural health Monitoring	2018	https://doi.org/10.1177/1475921718760483		-	-
P. Dey, S. Talukdar	A statistics and optimization based approach for crack parameters identification in curved beams	Structural Health Monitoring	2017	DOI:10.1177/1475921717732016		-	-
J. K. Sonu, K. D. Singh	Shear characteristics of Lean Duplex Stainless Steel (LDSS) rectangular hollow beams	Structures	2017	10	-	13	19
V. S.Varma, S. Das, C. V. Sastri, A. S. Kalamdhad	Microbial degradation of lignocellulosic fractions during drum composting of mixed organic waste.	Sustainable Environment Research	2017	27	-	265	272
R. Choudhary, D. Chattopadhyay, A. Kumar, A. Julaganti	Use of Industrial Wastes as Filler in Open-Graded Friction Courses	The Baltic Journal of Road and Bridge Engineering	2017	12	2	106	116
B. S. Dhanya, Manu Santhanam, Vijay Kulkarni, Prakash Nanthagopalan, Shashank Bishnoi, S. P. Singh, G. Indu Siva Ranjani, P. Dinakar, S. Bhaskar	Round robin testing of durability parameters – Towards identification of suitable durability tests for concrete	The Indian Concrete Journal	2017	91	7	11	22
Anurag Sharma, Rutuja Chavan, Bimlesh Kumar	Multi-scale Statistical Characterization of Migrating Pier Scour Depth in Non-uniform Sand Bed channel	The International Journal of River Basin Management	2017	15	3	265	276
U. P.Goswami, K. Bhargav, B. Hazra, M. K. Goyal	Spatiotemporal and joint probability behaviour of temperature extremes over the Himalayan region under changing climate	Theoretical and Applied Climatology	2017	https://doi.org/10.1007/s00704-017-2288-1		-	-
T. G. Singh, K. D. Singh	Structural performance of YSt-310 cold-formed tubular steel stub columns	Thin-Walled Structures	2017	121	-	25	40
J. K. Sonu, K. D. Singh	Shear Behaviour of Single Perforated Lean Duplex Stainless Steel (LDSS) Rectangular Hollow Beams	Thin-Walled Structures	2017	119	-	851	867
P. V. R. Narendra, K. D. Singh	Elliptical hollow section steel cantilever beams under extremely low cycle fatigue flexural load - a finite element study	Thin-Walled Structures	2017	119	-	126	150

Journal Papers

Civil Engineering

Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
K. Sachidananda, K. D. Singh	Structural behaviour of fixed ended stocky Lean Duplex Stainless Steel (LDSS) flat oval hollow column under axial compression	Thin-Walled Structures	2017	113	-	47	60
Gaurab Sil, Suresh Nama, Avijit Maji, Akhilesh Kumar Maurya	Operating speed prediction model as a tool for consistency based geometric design for four lane divided highways	Transport	2017	-	-	-	-
Sanhita Das, Akhilesh Kumar Maurya	Modelling of motorized two-wheelers: a review of the literature	Transport Reviews	2017	-	-	-	-
Anuj Budhkar, Akhilesh Kumar Maurya	Multiple-Leader Vehicle-Following Behavior in Heterogeneous Weak Lane Discipline Traffic	Transportation in Developing Economies (TiDE)	2017	-	-	-	-
Sanhita Das, Akhilesh Kumar Maurya, Anuj Budhkar	Determinants of time headway in staggered car-following conditions	Transportation Letters, The International Journal of Transportation Research	2017	-	-	-	-
M. A. Cyrille, M. David, L. Andre, M. Ebenezer, S. Gokhale	Projecting impacts of two-wheelers on urban air quality of Douala, Cameroon	Transportation Research, Part D	2017	52	-	49	63
Sanhita Das, Akhilesh Kumar Maurya	Multivariate analysis of microscopic traffic variables using copulas in staggered car-following conditions	Transportmetrica	2018	-	-	-	-
V. S. Varma, R. Prasad, S. Deb, A. S. Kalamdhad	Effects of aeration during pile composting of water hyacinth operated at agitated, passive and forced aerated condition	Waste and Biomass Valorization (Online).	2018	-	-	-	-
V. S. Varma, B. Kumar, A. S. Kalamdhad	Optimization of waste combinations during In-vessel composting of agricultural waste	Waste Management and Research	2017	35	1	101	109
K. R. Singh, N. Bharti, A. S. Kalamdhad, B. Kumar	Surface water quality assessment of Amingaon (Assam, India) using multivariate statistical techniques	Water Practice & Technology (Online)	2017	-	-	-	-
I. Vishan, A. Laha, A. S. Kalamdhad	Bio sorption of Pb (II) by Bacillus badius AK strain originating from rotary drum compost of water hyacinth	Water Science and Technology	2017	75	5	1071	1083

Journal Papers
Computer Science and Engineering

Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Tushar Semwal, Shashi Shekhar Jha, Shivashankar B. Nair	On Ordering Multi-Robot Task Executions within a Cyber Physical System	ACM Transactions on Autonomous and Adaptive Systems (TAAS)	2017	12	4	1	27
G. Panicker, K. V. Krishna, P. Bhaduri	Monoids of non-halting programs with tests	Algebra Universalis	2018	79	8	1	29
Sunil Kumar Sahu, Ashish Anand	What matters in a transferable neural network model for relation classification in the biomedical domain?	Artificial Intelligence in Medicine	2018	-	-	-	-
A. Dutta, T. Dubey, Kusum K. Singh, A. Anand	SpliceVec: Distributed feature representations for splice junction prediction.	Computational Biology and Chemistry	2018	-	-	-	-
Basant Subba, Santosh Biswas, Sushanta Karmakar	A game theory based multi layered intrusion detection framework for VANET"	Future Generation Computer Systems	2018	82	-	12	28
Bswajit Bhowmik, Santosh Biswas, Jatindra Kumar Deka, Bhargab B. Bhattacharya	Reliability-Aware Test Methodology for Detecting Manufacturing Short-Channel Faults in On-Chip Networks	IEEE Trans. on VLSI systems	2018	DOI: 10.1109/TVLSI.2018.2803478		-	-
Hari Prabhat Gupta, Venkatesh Tamarapalli, Seela Veerabhadreswara Rao, Tanima Dutta, Rahul Radhakrishnan Iyer	Analysis of Coverage Under Border Effects in Three-Dimensional Mobile Sensor Networks	IEEE Transaction on Mobile Computing	2017	16	9	2436	2449
Shashi Shekhar Jha, Shivashankar B. Nair	TANSA: Task Allocation using Nomadic Soft-Agents for Multi-Robot Systems	IEEE Transactions on Emerging Topics in Computational Intelligence	2017	pp	99	1	11
Bala Prakasa Rao Killi, Seela Veerabhadreswara Rao	Capacitated Next Controller Placement in Software Defined Networks	IEEE Transactions on Network and Service Mangement	2017	14	3	514	527
Badal Soni, Pradip K. Das, Dalton Meitei Thounaojam	CMFD: A detailed review of block based and key feature based techniques in image copy-move forgery detection	IET Journal of Image Processing, Springer US	2017	12	2	167	178
Rahul Bhattacharya, Subindu Kumar, Santosh Biswas	Fault Diagnosis in Switched-Linear Systems by Emulation of Behavioral Models on FPGA: A case study of current-mode buck converter	International Journal of Numerical Modelling: Electronic Networks, Devices and Fields	2018	-	-	-	-

Journal Papers**Computer Science and Engineering**

Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
M. Agarwal, S. Biswas, S. Nandi	An Efficient Scheme to Detect Evil Twin Rogue Access Point Attack in 802.11 Wi-Fi Network	International Journal of Wireless Information Networks (IJWI) (accepted), Springer,	2018	-	-	-	-
Biswajit Bhowmik, Santosh Biswas, Jatindra Kumar Deka	On-line Analysis of Stuck-at Faults in on-Chip Network Interconnects"	Journal of Circuits, Systems, and Computer, World Scientific (Accepted)	2018	-	-	-	-
Biswajit Bhowmik, Jatindra Kumar Deka, Santosh Biswas	A Time-Optimized Scheme Towards Analysis of Channel-Shorts in on-Chip Networks	Journal of Electronic Testing: Theory and Applications	2018	33	-	227	254
Amrita Bose Paul, Santosh Biswas, Sukumar Nandi, Sandip Chakraborty	MATEM: An Unified Framework based on Trust and MCDM for Assuring Security, Reliability and QoS in DTN Routing	Journal of Network and Computer Applications (JNCA)	2018	104	-	1	20
Pradeep Kumar Biswal, Santosh Biswas	On-Line Testing of digital VLSI circuits at Register Transfer Level using High Level Decision Diagrams	Microelectronics Journal	2018	67	-	88	100
L. Behera, P. Bhaduri	Time-Triggered Scheduling of Mixed-Criticality Systems	TODAES	2017	22	4	1	25
Debanjan Sadhukhan, S. V. Rao	Effect of Clock Skew in Event Driven, Delay Constrained Heterogeneous WSN with Anycast	Wireless Personal Communications	2018	97	4	4967	4980

Journal Papers**Design**

Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Ravi Lingannavar, Pradeep Yammiyavar	A Review of Techniques for Indian Small Scale Industries in Effecting Innovation through Design	International Journal of Engineering Science and Technology	2017	9	9S	160	165
Toney Sebastian, Pradeep Yammiyavar, Stevan Jones	Design Strategies Using Customization A Study of Indian User Perceptions	International Journal of Engineering Science and Technology	2017	9	9S	62	65
Toney Sebastian, Pradeep Yammiyavar, Stevan Jones	Product Selection in Planned Purchasing: Asian User Behavior and its Implications to Designers	International Journal of Engineering Science and Technology	2017	9	9S	53	57

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Toney Sebastian, Pradeep Yammiyavar, Stevan Jones	Translating Purchase Behavior to Design Strategies: A Theoretical Model	International Journal of Engineering Science and Technology	2017	9	9S	40	45
Toney Sebastian, Pradeep Yammiyavar, Stevan Jones	Transforming Brand Archetype Using Package Graphics: An Empirical Study	International Journal of Engineering Science and Technology	2017	9	9S	166	169
S. Nath, T. Kalita, A. Chatterjee, R. Tiwari, S. Karmakar,	Occupation imposed postural discomfort among the stone polishing workers from Guwahati, Assam: A systematic ergonomic evaluation	The Japanese Journal of Ergonomics	2017	53	S-2	S438	S441

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Sunil Dutt, Sukumar Nandi, Gaurav Trivedi	Analysis and Design of Adders for Approximate Computing	ACM Transactions on Embedded Computing Systems	2017	17	2	1	28
Q. Shi, D. Dong, K. J. Si, D. Sikdar, L. W. Yap, M. Premaratne, W. Cheng	Shape Transformation of Constituent Building Blocks within Self-Assembled Nanosheets and Nano-origami	ACS Nano	2018	12	2	1014	1022
R. C. Mishra, R. Bhattacharjee	Performance analysis of adaptive DFE using set-membership binormalized data-reusing LMS algorithm for frequency selective MIMO channels	AEU-International Journal of Electronics and Communications	2017	77	-	91	99
S. Shrivastava, A. Rajesh, P. K. Bora	Defense against primary user emulation attacks from the secondary user throughput perspective	AEU-International Journal of Electronics and Communications	2018	84	-	131	143
S. Bhattacharjee, R. S. Kshetrimayum, R. Bhattacharjee	On the theoretical analysis of radiation pattern and gain of printed monopole antennas	Applied Computational Electromagnetics Society Journal	2017	32	9	842	847
Rishikesh Kulkarni, Pramod Rastogi	Phase unwrapping algorithm using polynomial phase approximation and linear Kalman filter	Applied Optics	2018	57	4	702	708

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Sanjib Ganguly, Dipanjan Samajpati	Distributed generation allocation with on-load tap changer on radial distribution networks using adaptive genetic algorithm	Applied Soft Computing (Elsevier)	2017	59	-	45	67
Nabanita Adhikary, Chitralekha Mahanta	Inverse Dynamics based Robust Control Method for Position Commanded Servo Actuators in Robot Manipulators	Control Engineering Practice (Elsevier)	2017	66	-	146	155
Radak Blange, Chitralekha Mahanta, Anup Kumar Gogoi	Control of Electromagnetics Torques of EV Motoring using Fuzzy Logic controller	Control Theory and Applications	2017	10	25	329	337
Radak Blange, Chitralekha Mahanta, Anup Kumar Gogoi	Control of DC-DC Buck Boost Converter Output voltage Using Fuzzy Logic controller	Control Theory and Applications	2017	10	25	317	318
Deepak Joshi, Satyabrata Dash, H. S. Jatana, Ratnajit Bhattacharjee	Analog circuit optimization using adjoint network based sensitivity analysis	Elsevier AEU - International Journal of Electronics and Communications	2017	-	-	221	225
S. Kumar, Sonali Chouhan	Performance analysis of SIMO spectrum sharing networks over correlated k-u shadowed fading relying on MRC reception	Elsevier AEU- International Journal of Electronics and Communications	2017	82	-	104	108
S. Shahnawazuddin, R. Sinha	Assessment of Pitch-Adaptive Front-End Signal Processing for Children's Speech Recognition	Elsevier, Computer Speech & Language	2018	48	-	103	121
S. Shahnawazuddin, R. Sinha	Sparse coding over redundant dictionaries for fast adaptation of speech recognition system	Elsevier, Computer Speech & Language	2017	43	-	1	17
Vivek Venugopal, Suresh Sundaram	An online writer identification system using regression-based feature normalization and codebook descriptors	Expert Syst. Appl.	2017	72	-	196	206
L. Velleman, L. Scarabelli, D. Sikdar, A. A. Kornyshev, L. M. Liz-Marzán, J. B. Edel	Monitoring plasmon coupling and SERS enhancement through in situ nanoparticle spacing modulation	Faraday Discussions	2017	205	-	67	83
M. Bazant, R. Bennewitz, S. Booth, R. Dryfe, H. Girault, R. Hillman, A. A. Kornyshev, A. Lee, S. Lemay, A. Mount, F. Mugele, O. Robotham, G. Schatz, D. Schiffrin, D. Sikdar, E. Smirnov, R. Tivony, M. Urbakh	Electrovariable nanoplasmonics: general discussion	Faraday Discussions	2017	199	-	603	613

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
R. K. Tripathy, S. Deb, S. Dandapat	Analysis of physiological signals using state space correlation entropy	Healthcare Technology Letters	2017	4	-	30	33
K. Xu, X. Li, S. K. Bose, G. Shen	Joint Replica Server Placement, Content Caching, and Request Load Assignment in Content Delivery Networks	IEEE Access	2018	doi:10.1109/ACCESS.2018.2817646	99	1	1
Mohd. Tasleem Khan, Rafi Ahamed Shaik	An Energy Efficient VLSI Architecture of Decision Feedback Equalizer for 5G Communication System	IEEE Journal on Emerging and Selected Topics in Circuits and Systems	2017	7	4	569	581
I. Das, N. Nallam	Noise Cancellation? Explained!: The Role of Feedback in Noise-Canceling LNAs and Receivers	IEEE Microwave Magazine	2017	18	6	100	109
Ripudaman Singh, Brijesh Rai, Sanjay Bose	A Low Delay Cross-Layer MAC Protocol for k-Covered Event Driven Wireless Sensor Networks	IEEE Sensor Letters	2017	1	6	1	4
Tilendra Choudhary, L.N. Sharma, M.K. Bhuyan	Heart Sound Extraction from Sternal Seismocardiographic Signal	IEEE Signal Processing Letters	2018	25	4	482	486
S. Shah Nawazuddin, R. Sinha, G. Pradhan	Pitch-Normalized Acoustic Features for Robust Children's Speech Recognition	IEEE Signal Processing Letters	2017	24	8	1128	1132
K. Khanikar, R. Sinha, R. Bhattacharjee	Incorporating Primary User Interference for Enhanced Spectrum Sensing	IEEE Signal Processing Letters	2017	24	7	1039	1043
Abhishek Sharma, Suresh Sundaram	On the Exploration of Information From the DTW Cost Matrix for Online Signature Verification	IEEE Trans. Cybernetics	2018	48	2	611	624
P. Rangababu, S. Das, B. Swamy, Rafi Ahamed Shaik	Design of Streaming Deblocking Filter for HEVC Decoder	IEEE Trans. on Consumer Electronics	2017	63	3	225	233
M. Ajay Kumar, Rafi Ahamed Shaik	Separation of Sources from Single Channel EEG Signals using Independent Component Analysis	IEEE Trans. on Instrumentation and Measurement	2018	67	2	382	393
S. Deb, S. Dandapat	Emotion Classification using Segmentation of Vowel-Like and Non-Vowel-Like Regions	IEEE Transactions on Affective Computing	2017	-	-	1	14
S. Deb, S. Dandapat, J. Krajewski	Analysis and Classification of Cold Speech using Variational Mode Decomposition	IEEE Transactions on Affective Computing	2017	-	-	1	12
Saroj Mondal, Roy Paily	On-Chip Photovoltaic Power Harvesting System with Low-Overhead Adaptive MPPT for IoT nodes	IEEE Transactions on Circuits and Systems I: Regular Papers	2017	4	5	1624	1633

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Saroj Mondal, Roy Paily	Efficient Solar Power Management System for Self-Powered IoT Node	IEEE Transactions on Circuits and Systems I: Regular Papers	2017	64	9	2359	2369
S. Deb, S. Dandapat	Multiscale Amplitude Feature and Significance of Enhanced Vocal Tract Information for Emotion Classification	IEEE Transactions on Cybernetics	2018	-	-	1	12
A. Dalal, P. Kumar	Design, Prototyping and Testing of Dual Rotor Motor for Electric Vehicle Application	IEEE Transactions on Industrial Electronics	2018	-	-	-	-
Pavan Kumar Manchi, Roy Paily, Anup Kumar Gogoi	Low Power Digital Baseband Transceiver Design for UWB Physical Layer of IEEE 802.15.6 Standard	IEEE Transactions on Industrial Informatics	2017	13	5	2474	2483
Ripudaman Singh, Brijesh Rai, Sanjay Bose	A Joint Routing and MAC Protocol for Transmission Delay Reduction in Many-to-One Communication Paradigm for Wireless Sensor Networks	IEEE Transactions on Internet of Things	2017	4	4	1031	1045
J. Prajapati, M. Bharadwaj, A. Chatterjee, R. Bhattacharjee	Magnetic Field Assisted Radiation Enhancement from a Large Aperture Photoconductive Antenna	IEEE Transactions on Microwave Theory and Techniques	2018	66	2	678	687
U. Barman, G. Mukhopadhyay, N. Goswami, S. S. Ghosh, R. P. Palathinkal	Detection of Glutathione by Glutathione-S-Transferase-Nanoconjugate Ensemble Electrochemical Device	IEEE Transactions on NanoBioscience	2017	16	4	271	279
Brajesh Rawat, Roy Paily	Performance Evaluation of Bilayer GrapheneNanoribbon Tunnel FETs for Digital and Analog Applications	IEEE Transactions on Nanotechnology	2017	16	3	411	416
M. K. Joshi, S. K. Vyas, T. Tiwari, R. Bhattacharjee	Optimal Design of a Coaxial Cavity Based on Quality-Factor Maximization for High-Power Coaxial Magnetron in X-Band	IEEE Transactions on Plasma Science	2018	46	3	503	510
Ribu Chopra, R. Annavajjala, C. R. Murthy	Distributed Cophasing With Autonomous Constellation Selection	IEEE Transactions on Signal Processing	2017	65	21	5798	5911
Affijulla Shaik, Praveen Tripathy	A Robust Fault Detection and Discrimination Technique for Transmission Lines	IEEE Transactions on Smart Grid	2017	-	-	-	-
K. Khanikar, R. Sinha, R. Bhattacharjee	Cooperative Spectrum Sensing using Quantized Energy Statistics in the Absence of Dedicated Reporting Channel	IEEE Transactions on Vehicular Technology	2018	-	-	-	-
R. Chopra, C. R. Murthy, H. A. Suraweera, E. G. Larsson	Performance Analysis of FDD Massive MIMO Systems Under Channel Aging	IEEE Transactions on Wireless Communications	2018	17	2	1094	1108

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Ya Zhang, Yao Zhang, Sanjay K. Bose, Gangxiang Shen	Migration from Fixed to Flexible Grid Optical Networks with Sub-Band Virtual Concatenation	IEEE/OSA Journal of Lightwave Technology	2017	35	10	1752	1765
Fengxian Tang, Weidong Shao, Lian Xiang, Sanjay K. Bose, Gangxiang Shen	Mixed Channel Traffic Grooming for IP over EON with SBPP-based Cross-Layer Protection	IEEE/OSA Journal of Lightwave Technology	2017	35	18	3836	3848
A. Roy, H. Nemade, R. Bhattacharjee, V. Kushwaha	DQPSK Modulation and Demodulation using SAW Device	IET Communications	2017	11	17	2630	2636
Biplab Ketan Chakraborty, Debajit Sarma, M. K. Bhuyan, Karl F. MacDorman	A Review on Constraints in Vision based Gesture Recognition for Human Computer Interaction	IET Computer Vision	2017	12	1	3	15
Sunil Dutt, Sukumar Nandi, Gaurav Trivedi	Accuracy Enhancement of Equal Segment Based Approximate Adders	IET Computers & Digital Techniques	2018	10.1049/iet-cdt.2017.0171		-	-
Y. V. Karteek, Indrani Kar, Somanath Majhi	Consensus of Second Order Multi-agents with Actuator Saturation and Asynchronous Time-Delays	IET Control Theory and Applications	2017	11	17	3201	3210
R. Roy, K. K. Prabhakar, P. Kumar	Core-loss calculation in different parts of induction motor	IET Electric Power Applications	2018	11	9	1664	1674
M. B. Naik, Praveen Kumar, Somanath Majhi	Optimal Number of E-Buses in the Solar Assisted Smart Public Transit System and Its Failure Analysis	IET Electrical Systems in Transportation	2018	8	1	61	70
M. B. Naik, Praveen Kumar, Somanath Majhi	Small-scale Solar Plants Coupled with Smart Public Transportation System and its Coordination with the Grid	IET Electrical Systems in Transportation	2017	7	2	135	144
H. S. Sahu, S. K. Nayak	Estimation of Maximum Power Point of a Double Diode Model Photovoltaic Module	IET Power Electronics	2017	10	-	667	675
H. Kumar, M. Arrawatia, G. Kumar	Broadband Planar Log-Periodic Dipole Array Antenna Based RF-Energy Harvesting System	IETE Journal of Research	2017	-	-	1	5
J. Sanam, Sanjib Ganguly, A. K. Panda	Distribution STATCOM with optimal phase angle injection model for reactive power compensation of radial distribution networks	Int. J. Numerical Modelling (Wiley)	2017	30	-	1	8
Y. V. Karteek, Indrani Kar, Somanath Majhi	Consensus of Multi-Agent Systems using Back-tracking and History Following Algorithms	International Journal of Robotics and Automation	2017	32	4	369	378
Vinay Pandey, Indrani Kar, Chitralekha Mahanta	Controller Design for a Class of Nonlinear MIMO Coupled System using Multiple Models and Second Level Adaptation	ISA Transactions (Elsevier)	2017	69	-	256	272

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Basudeba Behera, Harshal B. Nemade	Recent developments of piezoelectric motors with diverse operating principles	ISSS Journal of Micro and Smart Systems	2017	6	2	173	185
Sameer Pawanekar, Kalpesh Kapoor, Gaurav Trivedi	Kapees3: A High-Quality VLSI Placement Tool Using Nesterov's Method for Density Penalty	Journal of Circuits, Systems and Computers	2018	27	8	-	-
Brajesh Rawat, Roy Paily	Modeling of Graphene-based Field-Effect Transistors through 1-D Real-Space Approach	Journal of Computational Electronics, Springer	2018	17	1	90	100
Sunil Kumar, M. K. Bhuyan, B. K. Chakraborty	Extraction of Texture and Geometrical Features from Informative Facial Regions for Sign Language Recognition	Journal on Multimodal User Interfaces Springer	2017	11	2	227	239
Basudeba Behera, Harshal B. Nemade	Finite element simulation of a SAW motor based on dual friction-drive	Materials Today: Proceedings	2017	4	9	10612	10616
A. N. Yadav, R. Bhattacharjee	Dual-band balanced-to-unbalanced out-of-phase equal power divider	Microwave and Optical Technology Letters	2017	59	8	2078	2083
Sibaji Gaj, Anoop Kumar Rathore, Arijit Sur, P. K. Bora	A robust watermarking scheme against frame blending and projection attacks	Multimedia Tools and Applications	2017	76	20	20755	20779
Y. Montelongo, D. Sikdar, Y. Ma, A. J. S. McIntosh, L. Velleman, A. R. Kucernak, J. B. Edel, A. A. Kornyshev	Electrotunable nanoplasmonic liquid mirror	Nature Materials	2017	16	11	1127	1135
Rishikesh Kulkarni, Pramod Rastogi	Simultaneous estimation of multiple phases in digital holographic interferometry using state space analysis	Optics and Lasers in Engineering	2017	-	-	1	8
J. Prajapati, M. Bharadwaj, A. Chatterjee, R. Bhattacharjee	Circuit modeling and performance analysis of photoconductive antenna	Optics Communications (Elsevier)	2017	394	-	69	79
Vivek Venugopal, Suresh Sundaram	An improved online writer identification framework using codebook descriptors	Pattern Recognition	2018	78	-	318	330
Ribhu Chopra, Debashis Ghosh, D. K. Mehra	Spectrum sensing for OFDM signals using pilot induced cyclostationarity in the presence of cyclic frequency offset	Physical Communication	2017	24	-	182	194
Daimu Oiwa, Shinji Fukui, Yuji Iwahori, Boonserm Kijsirikul, Tsuyoshi Nakamura, M. K. Bhuyan	Tracking with Extraction of Moving Object under Moving Camera Environment	Procedia Computer Science, Elsevier	2017	112	-	1479	1487

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
A. N. Yadav, R. Bhattacharjee	Unbalanced-to-Balanced Power Divider with Arbitrary Power Division	Progress In Electromagnetics Research C	2017	76	-	43	54
R. Jana, R. Bhattacharjee	Wideband matched feed design employing conjugate field radiated from a square choke excited by two slots on a diagonal waveguide	Progress In Electromagnetics Research M	2018	63	-	23	31
M. Manohar, R. S. Kshetrimayum, A. K. Gogoi	A Compact Dual Band-notched Circular Ring Printed Monopole Antenna for Super wideband Applications	Radio Engineering	2017	26	1	64	70
H. Weir, J. B. Edel, A. A. Kornyshev, D. Sikdar	Towards ElectrotuneableNanoplasmonicFabry–Perot Interferometer	Scientific Reports	2018	8	-	565	571
S. Deb, S. Dandapat	Fourier model based features for analysis and classification of out-of-breath speech	Speech Communication	2017	90	-	1	14
Satyabrata Dash, Deepak Joshi, Ayushparth Sharma, Gaurav Trivedi	Multiobjective Optimization using Hierarchical Nondominated Sorting Genetic Algorithm for Analog/RF Circuits	Springer Analog Integrated Circuits and Signal Processing	2017	94	-	27	47
Karam Singh,	Computationally Efficient Motion Estimation Algorithm for HEVC	Springer Journal of Signal Processing Systems	2017	-	-	1	13
Bhoopal Rao Gangadari,	Programmable Cellular Automata based Low Power Architecture to S-Box: An Application to WBAN	Springer Journal on Circuits, Systems and Signal Processing	2017	37	-	1116	1133
V. Harikrishna, Shaik Rafi Ahamed	An Ultra-Low Voltage Bulk Driven Analog Voltage Buffer with Rail-to-Rail Input/output Range	Springer Journal on Circuits, Systems and Signal Processing	2017	37	-	4886	4907
Parveen Malik, Kannan Karthik	Iterative content adaptable purple fringe detection	Springer Journal on Signal, Image and Video Processing	2018	12	1	181	188
N. C. Resmi, Sonali Chouhan	A Novel Interdependent Source-Channel Coding Technique for Enhanced Energy Efficiency in Communication over Wireless Sensor Networks	Springer Wireless Personal Communications	2017	96	3	3727	3743
S. Shahnawazuddin, R. Sinha	A Fast Adaptation Approach for Enhanced Automatic Recognition of Children's Speech with Mismatched Acoustic Models	Springer, Circuits, Systems, and Signal Processing	2018	37	3	1098	1115

Journal Papers

Electronics and Electrical Engineering

Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
O. P. Singh, R. Sinha	Sparse coding of i-vector/JFA latent vector over ensemble dictionaries for language identification systems	Springer, International Journal of Speech Technology	2017	-	-	1	16
S. Shahnawazuddin, D. Thotappa, A. Dey, S. Imani, S. R. M. Prasanna, R. Sinha	Improvements in IITG Assamese Spoken Query System: Background Noise Suppression and Alternate Acoustic Modeling	Springer, Journal of Signal Processing Systems	2017	88	1	91	102
Praveen Tiwari, Munish Manas, Pidanic Jan, Zdenek Nemec, Dolecek Radovan, Pinakeswar Mahanta, Gaurav Trivedi	A Review on Microgrid Based on Hybrid Renewable Energy Sources in South-Asian Perspective	Technology and Economics of Smart Grids and Sustainable Energy, Springer	2017	-	-	1	16
Abhishek Kumar, Bikash Sah, Yan Deng, Xiangning He, Praveen Kumar, Ramesh C. Bansal	Application of multi-criteria decision analysis tool for design of a sustainable micro-grid for a remote village in the Himalayas	The Journal of Engineering, IET	2017	2017	13	2108	2113
Abhishek Kumar, Yan Deng, Xiangning He, Praveen Kumar, Ramesh C. Bansal	Energy management system controller for a rural microgrid	The Journal of Engineering, IET	2017	2017	13	834	839
G. Rituraj, B. K. Kushwaha, P. Kumar	Contactless Power Transfer System for Sealed Lead Acid Battery Charging	Wireless Power Transfer	2018	5	1	20	26
A. Agrawal, R. S. Kshetrimayum	Transmit Antenna Selection in the Cooperative Communication Based UWB System	Wireless Personal Communications	2017	94	4	3001	3015

Journal Papers

Humanities and Social Sciences

Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
N. Kipgen	The enclosures of colonization: Indigeneity, development, and the case of Mapithel dam in Northeast India	Asian Ethnicity	2017	18	4	505	521
Ranu Roychoudhuri	Documentary Photography, Decolonization, and the Making of Secular Icons: Reading Sunil Janah's Photographs from the 1940s through the 1950s	BioScope: South Asian Screen Studies	2017	8	1	46	80

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Humanities and Social Sciences

Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Deepankar Basu, Debarshi Das	Profitability in India's Organized Manufacturing Sector: The Role of Technology, Distribution and Demand	Cambridge Journal of Economics	2018	https://doi.org/10.1093/cje/bew068		-	-
Sukanya Sharma, Pankaj Singh	Luminescence dating of Neolithic 3. pottery in North East India	Current Science	2017	113	3	492	496
Mithilesh Kumar Jha	Book Review: Challenges of Governing India: Asymmetries of Ideas and Frameworks by Ranabir Samaddar, Ideas and Frameworks of Governing India	Economic and Political Weekly	2017	52	49	40	42
Sumit Vij, Manoj Jatav, Anamika Barua, Madhusudhan Bhattarai	Women in MGNREGS in Telangana and Andhra Pradesh	Economic and Political Weekly	2017	52	32	67	73
Deepankar Basu, Debarshi Das	Service Sector Growth in India: A View from Households	Economic and Political Weekly	2017	-	3	68	75
Anamika Barua, Sumit Vij	Brahmaputra Riparian Countries Should Look Beyond Political Interests To Realise River's Potential.	Economic and Political Weekly Engage	2018	53	12	-	-
N. Tripathi, V. Ghosh	Gender differences in the effect of downward influence strategies on perceived stress and general-health: The mediating role of organizational justice	Employee Responsibilities and Rights Journal	2018	30	1	1	35
P. Sorokowski, A. K. Randall, A. Groyecka, T. Frackowiak, ... N. Tripathi, ... A. Sorokowska	Marital satisfaction, sex, age, marriage duration, religion, number of children, economic status, education, and collectivistic values: Data from 33 countries	Frontiers in Psychology	2017	8	8	1199	-
S. Borbora	A Perspective On Development In North-East India	GUINEIS Journal	2017	3	1	19	24
Baban Bayan, M. K. Dutta	Crossbred Cattle Adoption and Its Impact on Income and Household Milk Consumption among Dairy Farmers: Empirical Evidence from Assam	Indian Journal of Agricultural Economics	2017	72	2	153	165
Baban Bayan, M. K. Dutta	Effect of crossbred cattle adoption on employment generation in Assam	Indian Journal of Dairy Science	2018	71	1	-	-
Rajshree Bedamatta	Book review: Harsh Singh, Vinayak Damle, Devila Vyas, Ramila Vyas and Vishnu Khedkar, Towards a Local Livelihood Security Framework: Evidence from Small and Marginal Farmers in Dungarpur	Indian Journal of Human Development	2017	10	2	290	292
N. Tripathi, M. Bharadwaja, V. Ghosh, B. Katak	CSR Activities of a hospital: Perspective of stakeholders	International Journal of Business Excellence	2018	-	-	-	-

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Humanities and Social Sciences

Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Anamika Barua, Sumit Vij, Mirza Zulfiquir Rahman	Powering or sharing water in the Brahmaputra River basin	International Journal of Water Resources Development	2017	-	-	-	-
A. Sorokowska, P. Sorokowski, P. Hilpert, K. Cantarero, ...N. Tripathi, J. D. Pierce	Preferred interpersonal distances: A global comparison	Journal of Cross-Cultural Psychology	2017	48	4	577	592
Sukanya Sharma	The People, the Megaliths of Cherrapunjee	Journal of Heritage Management	2017	2	1	76	88
K. Shivali, D. Hussain	Cross-Cultural Challenges to the Construct Post-traumatic growth.	Journal of Loss and Trauma: International Perspectives on Stress and Coping	2018	-	-	-	-
Kaveri Deb, Bodhisattva Sengupta	Value-Added Trade and Empirical Distributions of RCA Indices	Journal of Quantitative Economics	2018	16	1	235	264
Shakuntala Mahanta, Indranil Dutta, Prarthana Acharyya	Lexical tone in Deori: Loss, contrast and word based alignment	Papers in Historical Phonology	2017	2		51	87
M. Kumari, S. Mallick	Triple helix model of innovation and the politics of genetically modified crops: Cases of Bt cotton and Bt brinjal in India	Perspectives on Global Development and Technology	2017	16	4	434	460
J. Tamuli, M. K. Dutta	Factors Influencing Reliability of Groundwater Markets in Less Water Scarce Regions: A Case of Assam in Eastern India	Review of Development and Change	2017	21	2	66	92
Gunjan Kumar, S. Borbora	Institutional Environment Differences Across the Indian States for Entrepreneurial Development	Review of Integrative Business and Economics Research	2017	6	4	50	69
Sawmya Ray	In a State of Limbo: Women, Sex Industry and Anti Trafficking Discourse in Assam	Sociological Bulletin: Journal of the Indian Sociological Society	2018	-	-	-	-
Sukanya Sharma	The Third Perspective on Shifting Cultivation	Space and Culture India	2017	5	2	21	31
Biswajit Dev Sarma, S. R. Mahadeva Prasanna, Priyankoo Sarmah	Consonant-vowel unit recognition using dominant aperiodic and transition region detection	Speech Communication	2017	92	1	77	89
Munmi Saikia, S. Borbora	Foreign Direct Investment of India: An analysis based on 'dynamic or Development Approach'	Transnational Corporations Review	2018	-	-	1	17

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Suparana Katyaini, Anamika Barua	Assessment of interstate virtual water flows embedded in agriculture to mitigate water scarcity in India (1996-2014)	Water Resources Research	2017	53	8	7382	7400

Journal Papers**Mathematics**

Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Debopam Chakraborty, Anupam Saikia	An explicit construction for unramified quadratic extensions of biquadratic fields	Acta Arithmetica	2017	178	2	153	161
Jhuma Sen Gupta, Rajen Kumar Sinha	A posteriori error analysis of semilinear parabolic interface problems using elliptic reconstruction	Applicable Analysis	2018	97	4	552	570
A. Majumdar, S. Natesan	Alternating Direction Numerical Scheme for Singularly Perturbed 2D Degenerate Parabolic Convection-Diffusion Problems	Applied Mathematics and Computation	2017	-	-	453	473
S. S. Kannan, K. Paramasamy, S. K. Pattanayak, Shyamashree Upadhyay	Torus Quotients of Richardson varieties	Communications in Algebra	2018	46	1	254	261
Ramesh Prasad Panda, K. V. Krishna	On the minimum degree, edge-connectivity and connectivity of power graphs of finite groups	Communications in Algebra	2018	46	7	3182	3197
Arabin Kumar Dey, Raghav Somani, Sreangsu Acharyya	A case study of empirical Bayes in a user-movie recommendation system	Communications in Statistics : Case Studies, Data Analysis and Applications	2017	3	1-2	1	6
S. Das, S. N. Bora	Oblique water wave damping by two submerged thin vertical porous plates of different heights	Computational and Applied Mathematics	2017	doi:10.1007/s40314-017-0545-7		-	-
Dinesh Kumar, Siddhartha P. Chakraborty	A predator-prey model with additional food supply to predators: dynamics and applications	Computational and Applied Mathematics	2018	37	1	763	784
D. Kundu, D. Mitra, A. Ganguly	Analysis of Left Truncated Right Censored Competing Risks Data	Computational Statistics and Data Analysis	2017	108	-	12	26
Dishari Chaudhuri, Anupam Saikia	On the derived length of units in group algebra	Czechoslovak Math. Journal	2017	67	3	855	865

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
A. Chaddha, S. N. Bora	Asymptotic stability of neutral impulsive stochastic partial differential equation of Sobolev type with Poisson jumps	Differential Equations and Dynamical Systems	2017	doi:10.1007/s12591-017-0371-9		1	28
J. Borah, S. N. Bora	Existence of mild solution for mixed Volterra-Fredholm integro fractional differential equation with non-instantaneous impulses	Differential Equations and Dynamical Systems	2018	DOI: 10.1007/s12591-018-0410-1		-	-
Barun Gorain, Partha Sarathi Mandal	Solving Energy Issues for Sweep Coverage in Wireless Sensor Networks	Discrete Applied Mathematics (Elsevier).	2017	228	10	130	139
A. Chaddha, S. N. Bora, R. Shakhthivel	Approximate controllability of impulsive stochastic fractional differential equations with nonlocal conditions	Dynamic Systems and Applications	2018	27	1	1	29
Jacques Giacomoni, Sweta Tiwari	Existence and global behaviour of solutions to Fractional p- laplacian parabolic problem	Electronic Journal of Differential Equations	2018	44	-	1	20
S. K. Panda, S. Pati	On the inverse of a class of weighted graphs	Electronic Journal of Linear Algebra	2017	32	-	539	545
Jiten C. Kalita, Sougata Biswas, Swapnendu Panda	Zeitschrift für angewandte Mathematik und Physik	Finiteness of corner vortices	2018	69	2	1	15
Ayush Garg, Akash Yadav, Axel Sikora, Ashok Singh Sairam	Wireless Precision Time Protocol	IEEE Communications Letters	2017	22	4	812	815
A. Kothiyari, B. Das, S. Bora, M. N. Belur	On the distance to singular descriptor dynamical systems with impulsive initial conditions	IEEE Transactions on Automatic Control	2018	DOI 10.1109/TAC.2018.2809741		-	-
Gayatri Panicker, K. V. Krishna, Purandar Bhaduri	Axiomatization of if-then-else over possibly non-halting programs and tests	International Journal of Algebra and Computation	2017	27	3	273	297
Jiten C. Kalita	A dual-purpose High Order Compact approach for pattern formation using Gray-Scott model	International Journal of Applied and Computational Mathematics	2017	3	3	2747	2760
Ankur Kanaujiya, Siddhartha P. Chakrabarty	Pricing European passport option with radial basis function	International Journal of Applied and Computational Mathematics	2017	3	3	1589	1604
Jiten C. Kalita, Parikshit Upadhyaya, Murli M. Gupta	Optimized BiCGStab based GPU accelerated computation of incompressible viscous flows by the Ψ -v formulation	International Journal of Applied and Computational Mathematics	2017	3	-	S1477	S1495

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
A. Majumdar, S. Natesan	Second-Order Uniformly Convergent Richardson Extrapolation Method for Singularly Perturbed DEgenerate Parabolic PDEs	International Journal of Applied and Computational Mathematics	2017	3	1	31	53
Koyel Chakravarty, D. C. Dalal	An analytical study of drug release kinetics from a degradable polymeric matrix	International Journal of Biomathematics.	2018	11	1	-	-
S. Gowrisankar, S. Natesan	ε - Uniformly Convergent Numerical Scheme for Singularly Perturbed Delay Parabolic Partial Differential Equations	International Journal of Computer Mathematics	2017	94	5	902	921
Koyel Chakravarty, D. C. Dalal	An analytical study of drug release to biological tissues through endocytosis	International Journal of Dynamics and Control	2018	6	1	167	178
Kalyan Manna, Siddhartha P. Chakrabarty	Combination therapy of pegylated interferon and lamivudine and optimal controls for chronic hepatitis B infection	International Journal of Dynamics and Control	2018	6	1	354	368
C. Ray, R. Barman	Infinite families of congruences for k-regular over partitions	International Journal of Number Theory	2018	14	1	19	29
Ramesh K. Jallu, Prajwal R. Prasad, Gautam K. Das	Distributed construction of connected dominating set in unit disk graphs	Journal of Parallel and Distributed Computing	2017	104	-	159	166
Anupam Saikia, Kumari Saloni	Bounding Hilbert coefficients of parameter ideals	Journal of Algebra	2018	501	-	328	344
Ramesh Prasad Panda, K. V. Krishna	On connectedness of power graphs of finite groups	Journal of Algebra and Its Applications	2018	17	10	1850184-01	8150184-20
Ankur Kanaujiya, Siddhartha P. Chakrabarty	Pricing and estimates of Greeks for passport option: A three time level approach	Journal of Computational and Applied Mathematics	2017	315	-	49	64
Rajesh Srivastava	Non-harmonic cones are Heisenberg uniqueness pairs for the Fourier transform on \mathbb{R}^n	Journal of Fourier Analysis and Applications	2018	doi.org/10.1007/s00041-018-9601-y		-	-
Arup Chattopadhyay, Kalyan B. Sinha	On the Carey-Helton-Howe-Pincus trace formula	Journal of Functional Analysis	2018	274	8	2265	2290
S. Saha, S. N. Bora	Trapped modes in a three-layer fluid	Journal of Marine Science and Application	2018	doi:10.1007/s11804-018-0005-9		-	-
A. Chaddha, S. N. Bora	Stability analysis for neutral stochastic differential equation of second order driven by Poisson jumps	Journal of Mathematical Physics	2017	58	11	112703-1-13	112703-1-13
S. K. Panda, S. Pati	On some graphs which satisfy reciprocal eigenvalue properties	Linear Algebra and its Applications	2017	530	-	445	460

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
R. B. Bapat, S. K. Panda, S. Pati	Self-inverse unicyclic graphs and strong reciprocal eigenvalue property	Linear Algebra and its Applications	2017	531	-	459	478
S. K. Panda, S. Pati	Inverses of weighted graphs	Linear Algebra and its Applications	2017	532	-	222	230
Jhuma Sen Gupta, Rajen Kumar Sinha	A posteriori error estimates for lumped mass finite element method for linear parabolic problems using elliptic reconstruction	Numerical Functional Analysis and Optimization	2017	38	12	1527	1547
Jhuma Sen Gupta, Rajen Kumar Sinha, G. Murali Mohan Reddy, Jinank Jain	New interpolation error estimates and a posteriori error analysis for linear parabolic interface problems	Numerical Methods for Partial Differential Equation	2017	33	2	570	598
Pratibha Shakya, Rajen Kumar Sinha	A priori and a posteriori error estimates of H1-Galerkin mixed finite element method for parabolic optimal control problems	Optimal Control Application Methods	2017	38	6	1056	1070
Arup Chattopadhyay, Bata Krishna Das, Jaydeb Sarkar	Rank of a co-doubly commuting submodule is 2	Proceedings of the American Mathematical Society	2018	146	3	1181	1187
Rami Atar, Subhamay Saha	Optimality of the Generalized $c\mu$ - Rule in the Moderate Deviation Regime	Queueing Systems	2017	87	00-Jan	113	130
R. Bürger, K. Sudarshan Kumar, R. Ruiz-Baier, H. Torres	Coupling of discontinuous Galerkin schemes for viscous flow in porous media with adsorption	SIAM Journal on Scientific Computing	2017	DOI: 10.1137/17M1125820		-	-
A. Koley, D. Kundu, A. Ganguly	Analysis of Type-II Hybrid Censored Competing Risks Data	Statistics	2017	51	6	1304	1325
Amarjit Budhiraja, Elisabeti Kira, Subhamay Saha	Central Limit Results for Jump-Diffusions with Mean Field Interaction and a Common Factor	Stochastic Analysis and Applications	2017	35	5	767	802
A. Chaddha, S. N. Bora	Existence and exponential stability for neutral stochastic fractional differential equations with impulses driven by Poisson jumps	Stochastics	2017	doi:10.1080/17442508.2017.1402899		-	-
R. Barman, C. Ray	Congruences for l-regular overpartitions and Andrew's singular overpartition	The Ramanujan Journal	2018	45	2	497	515

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
D. Sarkar, B. S. Reddy, S. Mandal, M. Ravi Sankar, B. Basu,	Uniaxial Compaction-Based Manufacturing Strategy and 3D Microstructural Evaluation of Near-Net-Shaped ZrO ₂ -Toughened Al ₂ O ₃ Acetabular Socket	Advanced Engineering Materials	2017	18	9	1634	1644
S. Kotoky, A. Dalal, G. Natarajan	Effects of Specularity and Particle-particle Restitution Coefficients on the Hydrodynamic Behavior of Dispersed Gas-particle Flows Through Horizontal Channels	Advanced Powder Technology	2018	29	4	874	889
S. Kotoky, A. Dalal, G. Natarajan	A Parametric Study of Dispersed Laminar Gas-Particle Flows Through Vertical and Horizontal Channels	Advanced Powder Technology	2018	29	5	1072	1084
A. Gupta, A. Prasad, N. Mulchandani, M. Shah, M. Ravi Sankar, S. Kumar, V. Katiyar	Toughened Stereocomplex Polylactic Acid-Nano Hydroxyapatite Biocomposites with Improved Thermo-mechanical and Gas Barrier Properties: A Potential candidate for Biomedical and Engineering Applications	American Chemical Society (ACS) Omega	2017	2	7	4039	4052
M. Krishnani, D. N. Basu	Computational Stability Appraisal of Rectangular Natural Circulation Loop: Effect of Loop Inclination	Annals of Nuclear Energy	2017	107	-	17	30
Shobhanjana Kalita, Arindam Karmakar, Shyamanta M. Hazarika	Efficient extraction of spatial relations for extended objects vis-à-vis human activity recognition in video	Applied Intelligence	2018	48	1	204	219
B. Kiran Naik, P. Muthukumar	A Novel Approach for Performance Assessment of Mechanical Draft Wet Cooling Towers	Applied Thermal Engineering	2017	121	-	14	26
Chilaka Ravi Chandra Rao, Hakeem Niyas, P. Muthukumar	Performance Tests on Lab-scale Sensible Heat Storage Prototypes	Applied Thermal Engineering	2018	129	-	953	967
N. K. Mishra, P. Muthukumar	Development and Testing of Energy Efficient and Environment Friendly Porous Radiant Burner Operating on Liquefied Petroleum Gas	Applied Thermal Engineering	2018	129	-	482	489
Achinta Sarkar, Ujjwal K. Saha	Impact of intake charge preheating on a biogas run dual fuel diesel engine using ternary blends of diesel-biodiesel-ethanol	ASCE Journal of Energy Engineering	2018	144	3	0401 8031 -1	0401 8031 -13
Achinta Sarkar, Ujjwal K. Saha	Effect of intake charge preheating and equivalence ratio in a dual fuel diesel engine run on biogas and ethanol-blended diesel	ASME Journal of Energy Resources Technology	2018	140	4	041802-01	041802-13
Nur Alom, Ujjwal K. Saha	Four decades of research into the augmentation techniques of Savonius wind turbine rotor	ASME Journal of Energy Resources Technology	2018	140	5	050801-1	050801-14

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
S. Bhardwaj, A. Dalal,	Mesoscopic Analysis of Dynamic Droplet Behavior on Wetted Flat and Grooved Surface for Low Viscosity Ratio	ASME Journal of Heat Transfer	2017	139	5	052002-1	052002-11
Rajkumar Sarma, Pranab K. Mondal	Entropy Generation Minimization in a Pressure-Driven Microflow of Viscoelastic Fluid With Slippage at the Wall: Effect of Conjugate Heat Transfer	ASME Journal of Heat Transfer	2018	140	5	052402-1	052402-11
Sachin Singh, Deepu Kumar, M. Ravi Sankar	Experimental, Theoretical, and Simulation Comparative Study of Nano Surface Roughness Generated during Abrasive Flow Finishing (AFF) Process	ASME Journal of Manufacturing Science and Engineering	2017	139	6	061014-1	061014-12
K. K. Gajrani, M. Ravi Sankar, U. S. Dixit	Tribological performance of MoS ₂ -filled microtextured cutting tools during dry sliding test	ASME Journal of Tribology	2018	140	2	021301-1	021301-11
A. Kumar, S. Panda	Optimal Damping in Circular Cylindrical Sandwich Shells With a Three-Layered Viscoelastic Composite Core	ASME Journal of Vibration and Acoustics	2017	139	6	061003-1	061003-12
H. Sarangi, K. S. R. K. Murthy, D. Chakraborty	Accurate measurement of mixed mode (I/II) stress intensity factors using strain gages	ASTM: Journal of Testing and Evaluation	2017	45	3	751	762
Sangeeta Das, S. S. Gautam, C. R. Gautam, Abhishek Madheshiya, U. S. Dixit	Parametric optimization of dry sliding wear and friction of germanium doped lead calcium titanate borosilicate glass ceramic	Ceramics International	2018	44	6	6541	6550
Sumant Pushp, Aditya Saikia, Arif Khan, Shyamanta Hazarika	A Cognitively Enhanced Collaborative Control Architecture for an Intelligent Wheelchair: Formalization, Implementation, and Evaluation	Cognitive Systems Research	2017	49	-	114	127
H. Gaikwad, D. N. Basu, P. K. Mondal	Slip Driven Micro-pumping of Binary System with A Layer of Non-conducting Fluid under Electrical Double Layer Phenomenon	Colloids and Surfaces A: Physicochemical and Engineering Aspects	2017	518	-	166	172
D. Chakraborty, D. Chakraborty, K. S. R. K. Murthy	A Strain Gage Technique for the Determination of Mixed Mode Stress Intensity Factors of Orthotropic Materials	Composite Structures	2017	160	-	185	194
Poonam Kumari, Agyapal Singh, R. K. N. D. Rajapakse, Santosh Kapuria	Three-dimensional static analysis of Levy-type functionally graded plate with in-plane stiffness variation	Composite Structures	2017	168	-	780	791
Poonam Kumari, S. Behera	Three-dimensional free vibration analysis of levy-type laminated plates using multi-term extended Kantorovich method	Composites Part B: Engineering	2017	116	-	224	238

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
S. Timung, J. Chaudhuri, M. P. Borthakur, T. K. Mandal, G. Biswas, D. Bandyopadhyay	Electric field mediated spraying of miniaturized droplets inside microchannel	Electrophoresis	2017	38	-	1450	1457
H. Gaikwad, P. K. Mondal	Slip driven electroosmotic transport through porous media	Electrophoresis	2017	38	5	596	606
H. Gaikwad, D. N. Basu, P. K. Mondal	Non-linear Drag Induced Irreversibility Minimization in a Viscous Dissipative Flow Through a Micro-porous Channel	Energy	2017	119	-	588	600
Nur Alom, Ujjwal K. Saha	Performance evaluation of vent-augmented elliptical-bladed Savonius rotors by numerical simulation and wind tunnel experiments	Energy	2018	152	-	277	290
Hakeem Niyas, Sunku Prasad, P. Muthukumar	Performance investigation of a lab-scale latent heat storage prototype - Numerical results	Energy Conversion and Management	2017	135	-	188	199
Ranjan Das, Sukanta Roy, Ujjwal K. Saha	An inverse method for optimization of geometric parameters of a Savonius-style wind turbine	Energy Conversion and Management	2018	155	-	116	127
Parag K. Talukdar, A. Sardar, Vinayak Kulkarni, Ujjwal K. Saha	Parametric analysis of model Savonius hydrokinetic turbines through experimental and computational investigations	Energy Conversion and Management	2018	158	-	36	49
B. Kiran Naik, V. Choudhary, P. Muthukumar, C. Somayaji	Performance Assessment of a Counter Flow Cooling Tower – Unique Approach	Energy Procedia	2017	109	-	243	252
B. Kiran Naik, P. Muthukumar	Empirical correlation based models for estimation of air cooled and water cooled condenser's performance	Energy Procedia	2017	109	-	293	305
D. V. N. Lakshmia, Apurba Layek, P. Muthukumar	Performance Analysis of Trapezoidal Corrugated Solar Air Heater with Sensible Heat Storage Material.	Energy Procedia	2017	109	-	463	470
P. Muthukumar, D. V. N. Lakshmia	Nucleation Enhancement Studies on Aqueous Salt Solutions.	Energy Procedia	2017	109	-	174	180
Debaleena Chakraborty, D. Chakraborty, K. S. R. Krishna Murthy	Experimental determination of mode I stress intensity factor in orthotropic materials using a single strain gage	Engineering Fracture Mechanics	2017	173	-	130	145
Pranab K. Mondal, Somchai Wongwises	Assesment of Thermodynamic Irreversibility in a Micro-Scale Viscous Dissipative Circular Couette Flow	Entropy	2018	20	1	50	-
D. Gayen, D. Chakraborty, R. Tiwari	Whirl Frequencies and Critical Speeds of a Rotor-Bearing System with a Cracked Functionally Graded Shaft - Finite Element Analysis	European Journal of Mechanics - A/Solid	2017	61	-	47	58

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
S. Bhardwaj, A. Dalal	Mesoscopic Analysis of Three-dimensional Droplet Displacement on Wetted Grooved Wall of a Rectangular Channel	European Journal of Mechanics / B Fluids	2018	67	-	35	53
Sunny Kumar, Bhaskarjyoti Sarma, Ahsok Kumar Dasmahapatra, Amaresh Dalal, Dipankar Narayan Basu, Dipankar Bandyopadhyay	Field induced anomalous spreading, oscillation, ejection, spinning, and breaking of oil droplets on a strongly slipping water surface	Faraday Discuss	2017	199	-	115	128
U. S. Tejaswini, D. N. Basu, M. Pandey	Improved Scaling Analysis for Heat Transfer in a Circular Tube with Various Supercritical Fluids using Computational Fluid Dynamics Simulations	Heat Transfer Engineering	2017	38	2	149	161
P. Kishore Kumar, M. Charan, S. Kanagaraj.	Trends and challenges in lower limb prostheses	IEEE potentials	2017	36	1	19	23
R. Ranjan Behera, P. M. Babu, K. Kumar Gajrani, M. Ravi Sankar	Fabrication of micro-features on 304 stainless steel (SS-304) using Nd:YAG laser beam	International Journal of Additive and Subtractive Materials Manufacturing	2017	1	-	338	359
U. S. Dixit, Vinod Yadav, Varun Sharma, Pulak M. Pandey, Anish Roy, Vadim Silberschmidt	Estimation of cutting forces in conventional and ultrasonic-vibration assisted turning using inverse modelling	International Journal of Additive and Subtractive Materials Manufacturing	2017	1	-	265	289
Kishor Kumar Gajrani, Dhanna Ram, Ravi Sankar Mamilla, Uday Shanker Dixit, P. S. Suvin, Satish Vasu Kailas	Machining of hardened AISI H-13 steel using minimum quantity eco-friendly cutting fluid	International Journal of Additive and Subtractive Materials Manufacturing	2017	1	-	240	256
R. Kalidasan, S. Senthilvelan, U. S. Dixit	An experimental study of surface roughness in double tool turning process	International Journal of Additive and Subtractive Materials Manufacturing	2017	1	-	310	327
Ketema Bobe Bonsa, Woldetinsay Jiru, Mamilla Ravi Sankar, U. S. Dixit	Experimental Study and Empirical Modelling of Laser Surface Finishing of Silicon Carbide	International Journal of Additive and Subtractive Materials Manufacturing	2017	1	-	290	309
B. Das, S. Pal, S. Bag	Weld quality prediction in friction stir welding using wavelet analysis	International Journal of Advanced Manufacturing Technology	2017	89	1	711	725
M. Parmananda, S. Khan, A. Dalal, G. Natarajan	Critical Assessment of Numerical Algorithms for Convective-Radiative Heat Transfer in Enclosures with Different Geometries	International Journal of Heat and Mass Transfer	2017	108	11	627	644

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H. Srivastava, A. Dalal, K. C. Sahu, G. Biswas	Temporal Linear Stability Analysis of an Entry Flow in a Channel with Viscous Heating	International Journal of Heat and Mass Transfer	2017	109	-	922	929
M. Parmananda, A. Dalal, G. Natarajan	The Influence of Partitions on Predicting Heat Transfer due to the Combined Effects of Convection and Thermal Radiation in Cubical Enclosures	International Journal of Heat and Mass Transfer	2018	121	-	1179	1200
P. Saha, G. Biswas, A. C. Mandal, S. Sarkar	Investigation of coherent structures in a turbulent channel with built-in longitudinal vortex generators	International Journal of Heat and Mass Transfer	2017	104	-	178	198
H. Gaikwad, P. K. Mondal, S. Wongwises	Non-linear drag induced entropy generation analysis in a microporous channel: The effect of conjugate heat transfer	International Journal of Heat Mass Transfer	2017	108	-	2217	2228
Chandras Patel, Pravin Ghatule, Sachin D. Kore	Finite element analysis of effect of process parameters on electromagnetic free expansion of aluminium tube	International Journal of Materials and Product Technology	2017	54	-	165	178
G. C. Verma, P. M. Pandey, U. S. Dixit	Modeling of static machining force in axial ultrasonic-vibration assisted milling considering acoustic softening	International Journal of Mechanical Sciences	2018	136	-	1	16
G. C. Verma, P. M. Pandey, U. S. Dixit	Estimation of workpiece-temperature during ultrasonic-vibration assisted milling considering acoustic softening	International Journal of Mechanical Sciences	2018	140	-	547	556
N. Muthu, S. K. Maiti, B. G. Falzon, Wenyi Yan	Modelling Interacting Cracks using Level Set Method using the element-free Galerkin method	International Journal of Mechanical Sciences	2017	134		203	215
A. Saikia, S. M. Hazarika	cBDI: Towards an Architecture for Human–Machine Collaboration	International Journal of Social Robotics	2017	9	2	211	230
Arpan Kumar Mondal, Pankaj Biswas, Swarup Bag	Prediction of weld induced residual stress and angular distortion of single sided and double sided fillet joint by SAW process	International Journal of Steel Structure	2017	17	1	1	10
S. Bhadauriya, H. Kapadia, A. Dalal, S. Sarkar	Effect of channel confinement on wake dynamics and forced convective heat transfer past a blunt headed cylinder	International Journal of Thermal Sciences	2018	124	-	467	476
Subham, A. Saikia, A. Dalal, S. Pati	Thermo-hydraulic Transport Characteristics of Non-Newtonian Fluid Flows Through Corrugated Channels	International Journal of Thermal Sciences	2018	129	-	201	208
A. Das, A. Kumar, G. P. Bharti, R. R. Behera, M. Ravi Sankar, A. Khare, D. Pamu,	Effect of thickness on optical and microwave dielectric properties of Hydroxyapatite films deposited by RF magnetron sputtering	Journal of Alloys and Compounds	2018	739	-	729	736

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K. K. Gajrani, D. Ram, M. Ravi Sankar	Biodegradation and hard machining performance comparison of eco-friendly cutting fluid and mineral oil using flood cooling and minimum quantity cutting fluid techniques	Journal of Cleaner Production	2017	165	C	1420	1435
Arun K. Kadian, Pankaj Biswas	Effect of tool pin profile on the material flow characteristics of AA6061	Journal of Manufacturing Processes	2017	26	-	382	392
Bipul Das, Sukhomay Pal, Swarup Bag	Torque based defect detection and weld quality modelling in friction stir welding process	Journal of Manufacturing Processes	2017	27	-	8	17
Ashish Kumar Rajak, Sachin D. Kore	Experimental investigation of aluminium–copper wire crimping with electromagnetic process: Its advantages over conventional process	Journal of Manufacturing Processes	2017	26	-	57	66
Prakash Kumar Sahu, Sukhomay Pal	Effect of FSW Parameters on Microstructure and Mechanical Properties of AM20 welds	Journal of Materials and Manufacturing Processes	2018	33	3	288	298
D. K. Yaduwanshi, S. Bag, Sukhomay Pal	On the effect of tool offset in hybrid FSW of copper and aluminium alloy	Journal of Materials and Manufacturing Processes	2018	33	3	277	278
R. Vignesh Babu, S. Kanagaraj	Thermal, electrical and mechanical characterization of microwave sintered Copper/carbon nanotubes (CNT) composites against sintering duration, CNT diameter and its concentration	Journal of Materials Processing Tech	2018	258	-	296	309
Arvind K. Agrawal, R. Ganesh Narayanan	Joining of a tube to a sheet through end curling	Journal of Materials Processing Technology	2017	246	-	291	304
Prakash Kumar Sahu, Sukhomay Pal	Mechanical Properties of Dissimilar Thickness Aluminium Alloy weld by Single/Double Pass FSW	Journal of Materials Processing Technology	2017	243	-	442	455
H. Chattopadhyay, S. K. Samanta, G. Biswas, B. B. Sharma	Direct numerical simulation of evaporation in a biporous media	Journal of Mechanical Science and Technology	2017	31	6	2635	2641
B. Das, S. Bag, S. Pal	Probing weld quality monitoring in friction stir welding through characterization of signals by fractal theory	Journal of Mechanical Science and Technology	2017	31	5	2459	2465
Arvind K. Agrawal, R. Ganesh Narayanan, Satish V. Kailas	End forming behaviour of friction stir processed Al6063-T6 tubes at different tool rotational speeds	Journal of Strain Analysis for Engineering Design	2017	52	7	434	449
R. Kumar, S. D. Kore	Electromagnetic Crimping in Tube-to-Cylinder Configuration: Influence of the Base Profiles on the Joint Quality	Journal of Testing and Evaluation	2017	46	3	1	14

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A. Bhowmick, S. M. Hazarika	An insight into assistive technology for the visually impaired and blind people: state-of-the-art and future trends	Journal on Multimodal User Interfaces	2017	11	2	149	172
P. P. Dutta, K. Kalita, U. S. Dixit, H. Liao	Magnetic-force-assisted straightening of bent mild steel strip by laser irradiation	Lasers in Manufacturing and Materials Processing	2017	4	4	206	226
M. Baruah, S. Bag, S. Kumar	Probing phase lag effect in ultra-short pulse laser heating of nano-film	Manufacturing Letters	2017	13	-	6	10
Guangjin Li, Hengcheng Liao, Xiaojing Suo, Yunyi Tang, Uday S. Dixit, Pavel Petrov	Cr-induced morphology change of primary Mn-rich phase in Al-Si-Cu-Mn heat resistant aluminum alloys and its contribution to high temperature strength	Materials Science & Engineering A	2018	709	-	90	96
Prakash Kumar Sahu, Sukhomay Pal	Influence of Metallic Foil Alloying by FSW Process on Mechanical Properties and Metallurgical Characterization of AM20 Mg Alloy	Materials Science and Engineering: A	2017	684	-	442	445
A. Singh, N. A. Manikandan, M. Ravi Sankar, K. Pakshirajan, L. Roy	Experimental Investigation and Surface Morphology of Bio-Micromachining on copper	Materials Today: Proceedings	2108	5	2	4225	4234
B. V. Ramanaiah, B. Manikanta, M. Ravi Sankar, M. Malhotra, K. K. Gajrani	Experimental study of Deflection and Surface Roughness in Thin Wall Machining of Aluminum Alloy	Materials Today: Proceedings	2108	5	2	3745	3754
Arbind Prasad, M. Ravi Sankar, Vimal Katiyar	State of Art on Solvent Casting Particulate Leaching Method for Orthopedic Scaffolds Fabrication	Materials Today: Proceedings	2017	4	2A	898	907
Arbind Prasad, Siddhart Mohan Bhasney, M. Ravi Sankar, Vimal Katiyar	Fish Scale Derived Hydroxyapatite reinforced Poly (Lactic acid) Polymeric Bio-films: Possibilities for Sealing/locking the Internal Fixation Devices	Materials Today: Proceedings	2017	4	2A	1340	1349
Kishor Kumar Gajrani, M. Ravi Sankar	State of the art on micro to nano textured cutting tools	Materials Today: Proceedings	2017	4	2A	3776	3785
Kishor Kumar Gajrani, M. Ravi Sankar	Past and current status of eco-friendly vegetable oil based metal cutting fluids	Materials Today: Proceedings	2017	4	2A	3786	3795
W.G. Jiru, M. Ravi Sankar, U. S. Dixit	Investigation of microstructure and microhardness in laser surface alloyed aluminum with TiO ₂ and SiC powders	Materials Today: Proceedings	2017	4	2A	717	724
Bipul Das, Sukhomay Pal, Swarup Bag	Design and Development of force and torque measurement setup for real time monitoring of friction stir welding process	Measurement	2017	103	-	186	198

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J. Ravi, S. Nidhan, N. Muthu, S. K. Maiti	Analytical and Experimental studies on detection of longitudinal, L and T shaped cracks in Isotropic and Bi-material beams based on changes in natural frequency	Mechanical Systems and Signal Processing	2018	101	-	67	96
Prakash Kumar Sahu, Sukhomay Pal, Surjya K. Pal	Al/Cu Dissimilar FSW with Ni, Ti and Zn Foil as Interlayer for Flow Control, Enhancing Mechanical and Metallurgical Properties	Metallurgical and Materials Transactions A	2017	48	7	3300	3317
P. Kaushik, P. K. Mondal, S. Chakraborty	Rotational electrohydrodynamics of a non-Newtonian fluid under electrical double-layer phenomenon: the role of lateral confinement	Microfluidics and Nanofluidics	2017	21	7	122-1	122-16
P. Borgohain, A. Dalal, G. Natarajan, H. Gadgil	Numerical assessment of mixing performances in cross-T microchannel with curved ribs	Microsystem Technologies	2018	24	-	1949	1963
R. Sarma, H. Gaikwad, P. K. Mondal	Effect of Conjugate Heat Transfer on Entropy Generation in Slip Driven Microflow of Power-Law fluids	Nanoscale and Microscale Thermophysical Engineering	2017	21	-	26	44
D. Shankar, D. N. Basu, M. Pandey	Development and analysis of a novel scaling methodology for stability appraisal of supercritical flow channels	Nuclear Engineering and Design	2017	323	-	46	55
M. K. S. Sarkar, D. N. Basu	Numerical Comparison of Thermalhydraulic Aspects of Supercritical Carbon Dioxide and Subcritical Water-based Natural Circulation Loop	Nuclear Engineering and Technology	2017	49	1	103	112
H. Kapadia, A. Dalal, S. Sarkar	Forced Convective Flow and Heat Transfer Past an Unconfined Blunt Headed Cylinder	Numerical Heat Transfer, Part A	2017	72	5	372	388
V. K. Mishra, S. C. Mishra, D. N. Basu	Simultaneous Estimation of Parameters in Analyzing Porous Medium Combustion - Assessment of Seven Optimization Tools	Numerical Heat Transfer, Part A	2017	71	6	666	676
A. Mukherjee, S. C. Mishra, P. K. Mondal	Numerical analysis of combined mode dual-phase-lag heat conduction and radiation in an absorbing, emitting and scattering cylindrical medium	Numerical Heat Transfer: Part-A	2017	71	-	769	788
M. Baruah, S. Bag	Influence of pulsation in thermo-mechanical analysis on laser microwelding of Ti6Al4V alloy	Optics & Laser Technology	2017	90	-	40	51
B. N. Fetene, Vikash Kumar, Uday S. Dixit, Raghu Echempati	Numerical and experimental study on multi-pass laser bending of AH36 steel strip	Optics & Laser Technology	2018	99	-	291	300

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B. Nath, G. Biswas, A. Dalal, K. C. Sahu	Migration of a Droplet in a Cylindrical Tube in the Creeping Flow Regime	Physical Review E	2017	95	-	033110-1	033110-11
M. P. Borthakur, G. Biswas, D. Bandyopadhyay	Formation of liquid drops at an orifice and dynamics of pinch-off in liquid jets	Physical Review E	2017	96	-	013115-1	013115-11
M. P. Borthakur, G. Biswas, D. Bandyopadhyay	Dynamics of deformation and pinch-off of a migrating compound droplet in a tube	Physical Review E	2018	97	-	043112-1	043112-9
Srinivas R. Gorthi, P. K. Mondal, G. Biswas	Magnetic-field-driven alteration in capillary filling dynamics in a narrow fluidic channel	Physical Review E	2017	96	-	013113-1	13113-14
Arnab Lahiri, Pranab K. Mondal	Evaluation of temperature history of a spherical nanosystem irradiated with various short-pulse laser sources	Physical Review E	2018	97	4	43302	-
Rajkumar Sarma, Pranab K. Mondal	Marangoni instability in a thin film heated from below: Effect of nonmonotonic dependence of surface tension on temperature	Physical Review E	2018	97	4	43105	-
V. Pandey, G. Biswas, A. Dalal	Saturated Film Boiling at Various Gravity Levels Under the Influence of Electrohydrodynamic Forces	Physics of Fluids	2017	29	-	032104-1	032104-13
H. Deka, B. Ray, G. Biswas, A. Dalal, P-H. Tsai, A-B. Wang	The Regime of Large Bubble Entrapment During a Single Drop Impact on a Liquid Pool	Physics of Fluids	2017	29	-	092101-1	092101-13
H. Deka, B. Ray, G. Biswas, A. Dalal	Dynamics of tongue shaped cavity generated during the impact of high-speed microdrops	Physics of Fluids	2018	30	-	042103-1	042103-14
S. Karmakar, N. Kalita, A. Banerjee	Optimum placement of shape memory alloy wire actuator	Proceedings of the Institution of Mechanical Engineers Part C: Journal of Mechanical Engineering Science	2017	231	7	1272	1291
Poonam Kumari, A. Shakya	Two-Dimensional Solution of Piezoelectric Plate Subjected to Arbitrary Boundary Conditions using Extended Kantorovich Method	Procedia Engineering	2017	173	-	1523	1530
S. S. Gautam, P. M. Dixit	Simulation of Large Deformation Elasto-plastic Impact Problems Using Two Different Objective Stress Measures	Procedia Engineering	2017	172	-	432	439
Ishwar Kapoor, R. Ganesh Narayanan, Scott Taylor, Vit Janik, Richard Dashwood	Predicting the warm forming behavior of WE43 and AA5086 alloys	Procedia Engineering	2017	173	-	897	904

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S. Bhardwaj, P. Randive, A. Dalal	Lattice Boltzmann Simulations of Coalescence of Two Droplets on a Rectangular Channel Wall Considering Wetting Effects	Progress in Computational Fluid Dynamics	2017	17	5	281	289
S. Bhardwaj, P. Randive, A. Dalal	Numerical Investigation of Two Dimensional Natural Convection and Entropy Generation inside a Porous Square Enclosure with Sinusoidally Heated Wall	Progress in Computational Fluid Dynamics	2017	17	5	281	289
D. V. N. Lakshmia, P. Muthukumar, Apurba Layek, P. K. Nayak	Drying Kinetics and Quality Analysis of Black Turmeric (Curcuma Caesia) Drying in a Mixed Mode Forced Convection Solar Dryer Integrated with Thermal Energy storage	Renewable Energy	2018	120	-	23	34
Parag K. Talukdar, Vinayak Kulkarni, Ujjwal K. Saha	Field-testing of model helical-bladed hydrokinetic turbines for small-scale power generation	Renewable Energy	2018	127	-	158	167
D. K. Rabha, P. Muthukumar, C. Somayaji	Energy and exergy analyses of the solar drying processes of Ghost Chilli Pepper and Ginger	Renewable Energy	2017	105	-	764	773
D. K. Rabha, P. Muthukumar	Experimental Investigation of Thin Layer Drying Kinetics of Ghost Chill Pepper (Capsicum Chinense Jacq.) Dried in a Forced Convection Solar Tunnel Dryer	Renewable Energy	2017	105	-	583	589
Nizar Faisal Alkayem, Biswajit Parida, Sukhomay Pal	Optimization of friction stir welding process parameters using soft computing techniques, Soft Computing	Soft Computing	2017	21	23	7083	7098
D. K. Rabha, P. Muthukumar, C. Somayaji	Performance Studies on a Forced Convection Solar Dryer Integrated With a Paraffin Wax–Based Latent Heat Storage System	Solar Energy	2017	149	-	214	226
Hakeem Niyas, Chilaka R. C. R., P. Muthukumar	Performance Investigation of a lab–scale latent heat storage prototype - Experimental results	Solar Energy	2017	155	-	971	984
L. Ram, D. Sharma	Evolutionary and GPU Computing for Topology Optimization of Structures	Swarm and Evolutionary Computation	2017	35	-	1	13
Pranjol Paul, K.S.R.K. Murthy, D. Chakraborty	A strain gage technique for mode I notch stress intensity factor of sharp V-notched configurations	Theoretical and Applied Fracture Mechanics	2018	94	-	57	70
M. Baruah, S. Bag	Characteristic difference of thermo-mechanical behavior in plasma microwelding of steels	Welding in the World	2017	61	4	857	871

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Ravi Biroju, D. Das, R. Sharma, S. Pal, L. P. L. Mawlong, K. Bhorkar, P. K. Giri, A. Singh, T. N. Narayanan	On the Hydrogen Evolution Reaction Activity of Graphene-MoS ₂ van der Waals Heterostructures	ACS Energy Letters	2017	2	6	1355	1361
Prahlad K. Baruah, Anuma Singh, Iffat Jahan, Latha Rangan, Aditya N. Panda, A. K. Sharma, Alike Khare	Surface-enhanced Raman scattering from copper nanoparticles treated furanoflavonoidkaranjin	Advanced Materials Letters	2017	8	10	971	976
Prahlad K. Baruah, A. K. Sharma, Alike Khare	Dependence of the Size of Copper Nanoparticles on Laser Energy Synthesized by Pulsed Laser Ablation in Liquid	Advanced Materials Proceeding	2017	2	4	264	268
G. Rajender, J. Kumar, P. K. Giri	Interfacial Charge Transfer in TiO ₂ Nanoparticle-Graphene Quantum Dot Hybrid and Its influence on the Enhanced Visible Light Photocatalysis	Applied Catalysis B	2018	224	-	960	972
Kh. Shantakumar Singh, A. K. Sharma	Time integrated optical emission studies on laser-produced copper plasma in the presence of magnetic field in air ambient at atmospheric pressure	Applied Physics A	2017	123	-	325	-
Jyoti Prasad Deka, Amarendra K. Sarma	Highly amplified light transmission in parity-time symmetric multilayered structure	Applied Optics	2018	57	5	1119	1126
Anuj Nandi, S. Mandal, H. Sreehari, D. Radhika, Santabrata Das, I. Chattopadhyay, N. Iyer, V. K. Agrawal, R. Aktar	Accretion flow dynamics during 1999 outburst of XTE J1859+226 - modeling of broadband spectra and constraining the source mass	Astrophysics and Space Science	2018	363	90	-	-
S. Pattipaka, M. Peddigari, D. Pamu	Effect of Ce on structural and dielectric properties of lead-free (Bi _{0.5} Na _{0.5})TiO ₃ ceramics	Ceramics international	2017	43	DOI 10.1016/j.ceramint.2017.05.185.	S151	S157
Aakansha, Bipul Deka, S. Ravi, D. Pamu	Impedance spectroscopy and ac conductivity mechanism in Sm doped Yttrium iron garnets	Ceramics International	2017	43	13	10468	10477
Bipul Deka, S. Ravi, D. Pamu	Evolution of structural transition, grain growth inhibition and collinear antiferromagnetism in (Bi _{1-x} Sm _x)FeO ₃ (x = 0 to 0.3) and their effects on dielectric and magnetic properties	Ceramics International	2017	43	18	16580	16592

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Zaineb Calcuttawala, Anirban Kundu, Soumitra Nandi, Sunando Kumar Patra	Optimal observable analysis for the decay b_s plus missing energy	The European Physical Journal C	2017	77	9	650	-
Biswaranjan Das, Stefano Moretti, Shoaib Munir, Poullose Poullose	Two Higgs bosons near 125 GeV in the NMSSM: beyond the narrow width approximation	The European Physical Journal C	2017	77	8	544	-
Deepanjali Goswami, P. Poullose	Direct searches of Type III seesaw triplet fermions at high energy e^+e^- collider	The European Physical Journal C	2018	78	1	42	-
Koijam Monika Devi, M. Islam, Dibakar Roy Chowdhury, Amarendra K. Sarma, Gagan Kumar	Plasmon induced transparency in graphene based terahertz metamaterials	Europhysics Letters	2018	120	2	27005-p1	27005-p6
D. V. Ahluwalia, Cheng-Yang Lee	A QFT-induced phase in neutrino flavour oscillations	Europhysics Letters (EPL)	2017	119	6	61001	-
D. V. Ahluwalia	Evading Weinberg's no-go theorem to construct mass dimension one fermions: Constructing darkness	Europhysics Letters (EPL)	2017	118	6	60001	-
S. Pattipaka, M. Peddigari, D. Pamu	Structural, dielectric and AC-conductivity studies of Gd doped lead-free $\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3$ ceramics	Ferroelectrics	2017	518	DOI 10.1080. / 00150193. 2017. 1360122	59	65
R. K. Bhuyan, T. Santhosh Kumar, D. Pamu	Liquid phase effect of Bi_2O_3 additive on densification, microstructure and microwave dielectric properties of Mg_2TiO_4 ceramics	Ferroelectrics	2017	516	1	173	184
C. Anil Kumar, D. Pamu	Effect of V_2O_5 on BaWO_4 thin films deposited by RF sputtering for microwave decorative and dielectric capacitor applications	Ferroelectrics	2017	519	1	171	177
S. Rabha, A. K. Chikkala, P. Dobbidi	Structural and dielectric properties of $(1-x)\text{MgTiO}_3$ - $x\text{Ba}_5\text{Nb}_4\text{O}_{15}$ composites by microwave sintering process	Ferroelectrics	2017	519	DOI 10.1080/ 00150193. 2017. 1361233	145	151
J. Kumar, H. B. Nemade, P. K. Giri	Adsorption of Small Molecules on Niobium Doped Graphene: A Study Based on Density Functional Theory	IEEE Electron Device Letters	2018	39	2	296	299

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Avik Paul, Bibhas Ranjan Majhi	Hawking evaporation cascade in presence of back reaction effect	International Journal of Modern Physics A	2017	32	16	1750088	-
Gaurav Yadav, Baby Komal, Bibhas Ranjan Majhi	Rainbow Rindler metric and Unruh effect	International Journal of Modern Physics A	2017	32	33	1750196	-
Nilanjandev Bhaumik, Bibhas Ranjan Majhi	Interior volume of (1+D) dimensional Schwarzschild black hole	International Journal of Modern Physics A	2018	33	2	1850011	-
D. V. Ahluwalia	Reflections of the observer and the observed in quantum gravity	International Journal of Modern Physics D	2017	26	12	1743001	-
Ashis Kundu, Subhradip Ghosh	First principles study of the structural phase stability and magnetic order in various structural phases of Mn ₂ FeGa	Intermetallics	2018	93	https://doi.org/10.1016/j.intermet.2017.12.010	209	216
Arnab K. De, Vinayak Eswaran, Pankaj K. Mishra	Scalings of heat transport and energy spectra of turbulent Rayleigh-Benard convection in a large-aspect-ratio box	International Journal of Heat and Fluid Flow	2017	67	doi: http://dx.doi.org/10.1016/j.ijheatfluidflow.2017.0	111	124
Wadbor Wahlang, Piyush A. Jeena, Sayan Chakrabarti	Quasinormal modes of scalar and Dirac perturbations of Bardeen de-Sitter black holes	International Journal of Modern Physics D	2017	26	14	1750160	-
A. Das, A. K. Chikkala, G. P. Bharti, R. R. Behera, R. S. Mamila, A. Khare, P. Dobbidi	Effect of thickness on optical and microwave dielectric properties of Hydroxyapatite films deposited by RF magnetron sputtering	Journal of Alloys and Compounds	2018	739	DOI 10.1016/j.jallcom.2017.12.293	729	736
Ravi K. Biroju, P. K. Giri	Strong Visible and Near Infrared Photoluminescence from ZnO Nanorods/ Nanowires Grown on Single Layer Graphene Studied Using Sub-band Gap Excitation	Journal of Applied Physics	2017	122	-	44302	-
P. Srinivas, A. R. James, D. Pamu	Dielectric, Piezoelectric and Variable Range Hopping Conductivity Studies on Bi _{0.5} (Na,K)O _{0.5} TiO ₃ Ceramics	Journal of Electronic Materials	2018	-	doi: https://doi.org/10.1007/s11664-018-6263-0	1	15
P. Gogoi, L. R. Singh, D. Pamu	Characterization of Zn doped MgTiO ₃ ceramics: an approach for RF capacitor applications	Journal of Materials Science: Materials in Electronics	2017	-	DOI 10.1007/s10854-017-6975-6.	-	-
Sangkha Borah, Padmanabhan Padma Kumar	First Principle Molecular Dynamics Investigation of Waterborne As-V Species	The Journal of Physical Chemistry B	2018	122	DOI: 10.1021/acs.jpcc.7b12482.	3153	

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Kamal Kumar Paul, P. K. Giri	Role of Surface Plasmons And Hot Electrons On The Strong Visible Light Photocatalysis By Defect Enriched Ag@TiO ₂ Nanorods	The Journal of Physical Chemistry C	2017	121	-	20016	-
Biswajit Karmakar, Arunansu Sil	Connecting nonzero θ_{13} , Dirac CP phase and leptogenesis through spontaneous CP violation	Journal of Physics: Conference Series	2018	888	1	12177	-
Sk. Md. Obaidulla, S. Singh, Y. N. Mohapatra, P. K. Giri	Ambient condition bias stress stability of vanadium (IV) oxide-phthalocyanine based p-channel organic field-effect transistors	Journal of Physics D: Applied Physics	2018	51	-	15110	-
Kh. Shantakumar Singh, A. K. Sharma	Melt ejection from copper target in air in the presence of magnetic field using nanosecond pulsed laser ablation	Journal of Vacuum Science & Technology A	2017	35	-	31305	-
Basabendu Barman, Subhaditya Bhattacharya, Sunando Kumar Patra, Joydeep Chakraborty	Non-Abelian Vector Boson Dark Matter, its Unified Route and signatures at the LHC	JCAP	2017	1712	12	21	-
Partha P. Dey, Alikha Khare	Nonlinear optical and optical limiting response of PLD nc-Si thin films	Journal of Materials Chemistry C	2017	5	-	12211	12220
Partha P. Dey, Alikha Khare	Stoichiometry-dependent linear and nonlinear optical properties of PLD SiO _x thin films	Journal of Alloys and Compound	2017	706	-	370	376
Bipul Deka, S. Ravi	Study of impedance spectroscopy and electric modulus of PbTi _{1-x} Fe _x O ₃ ($x = 0.0-0.3$) compounds	Journal of Alloys and Compounds	2017	720	-	589	598
Trinayan Sarmah, Ngangom Aomoa, G. Bhattacharjee, Sidananda Sarma, Biswajit Bora, D. N. Srivastava, H. Bhuyan, M. Kakati, G. De Temmerman	Plasma expansion synthesis of tungsten nanopowder	Journal of Alloys and Compounds	2017	725	DOI: 10.1016/j.jallcom.2017.07.207.	606	615
R. Padam, T. Sarkar, R. Mathieu, S. Thota, D. Pal	Magnetic phase diagram of Co(Cr _{1-x} Al _x) ₂ O ₄	Journal of Applied Physics	2017	122	7	73908	-
S. Thota, S. Ghosh, S. Nayak, D. C. Joshi, P. Pramanik, K. Roychowdhury, S. Das	Finite-size-scaling and Exchange-Bias in SrRuO ₃ /LaNiO ₃ /SrRuO ₃ Trilayers	Journal of Applied Physics	2017	122	12	124304	-
S. Singh, P. Pramanik, S. Sangaraju, A. Mallick, L. Giebeler, S. Thota	Size-dependent structural, magnetic and optical properties of MnCo ₂ O ₄ nanocrystallites	Journal of Applied Physics	2017	121	19	194304	-

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Authors1	Paper Title	Journal Name	Year	Volume	Issue Number (If any)	Starting Page	Ending Page
Maidul Islam, Dibakar Roy Chowdhury, Amir Ahmad, Gagan Kumar	Terahertz guided mode properties in an internally corrugated plasmonic waveguide	Journal of Applied Physics	2017	122	-	53105	-
R. T. George, D. C. Joshi, S. Nayak, N. Tiwari, R. N. Chauhan, P. Pramanik, T. A. Dar, S. Ghosh, S. Thota	Effect of NiO substitution on the structural and dielectric behaviour of NaNbO ₃	Journal of Applied Physics	2018	123	5	54101	-
Ramiz Aktar, Santabrata Das, Anuj Nandi, H. Sreehari	Advective accretion flow properties around rotating black holes - application to GRO J1655-40	Journal of Astrophysics and Astronomy	2018	39	1	8	-
Biplob Sarkar, Santabrata Das	Standing shocks in magnetized dissipative accretion flow around black holes	Journal of Astrophysics and Astronomy	2018	39	1	12	-
Debasish Borah, Arnab Dasgupta	Naturally light Dirac neutrino in Left-Right Symmetric Model	Journal of Cosmology and Astroparticle Physics	2017	1706	6	3	-
Subhaditya Bhattacharya, Purusottam Ghosh, Poullose Poullose	Multipartite Interacting Scalar Dark Matter in the light of updated LUX data	Journal of Cosmology and Astroparticle Physics (JCAP)	2017	1704	4	43	-
S. Ganguly, S. Basu	Conductance properties of six terminal graphene nanoribbons in presence of a magnetic field: integer quantum Hall effect revisited	Journal of Electromagnetic Waves and Applications	2017	31	18	1974	1982
Prashant K. Sarswat, Nipon Deka, S. Jagan Mohan Rao, Michael L. Free, Gagan Kumar	Surface Texture-Induced Enhancement of Optical and Photoelectrochemical Activity of Cu ₂ ZnSnS ₄ Photocathodes	Journal of Electronics Materials	2017	46	8	5308	5318
Subhaditya Bhattacharya, Biswajit Karmakar, Narendra Sahu, Arunansu Sil	Flavor origin of dark matter and its relation with leptonic nonzero θ_{13} and Dirac CP phase δ	Journal of High Energy Physics	2017	2017	doi: https://doi.org/10.1007/JHEP05(2017)068.	68	-
Debasish Borah, Arnab Dasgupta, Ujjal Kumar Dey, Sudhanwa Patra, Gaurav Tomar	Multi-component Fermionic Dark Matter and IceCube PeV scale Neutrinos in Left-Right Model with Gauge Unification	Journal of High Energy Physics	2017	1709	-	5	-
Sneha Jaiswal, Soumitra Nandi, Sunando Kumar Patra	Extraction of $ V_{cb} $ from $BD^{(*)} \ell \nu \ell$ and the Standard Model predictions of $R(D^{(*)})$	Journal of High energy Physics	2017	1712	60	-	-
Subhaditya Bhattacharya, Purusottam Ghosh, Tarak Nath Maity, Tirtha Sankar Ray	Mitigating Direct Detection Bounds in Non-minimal Higgs Portal Scalar Dark Matter Models	Journal of High Energy Physics	2017	10	88	-	-

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Maidul Islam, Dibakar Roy Chowdhury, Amir Ahmad, Gagan Kumar	Planar plasmonic waveguide based terahertz sensor	Journal of Lightwave Technology	2017	35	-	5215	-
T. R. Gopalarao, Bibhuti B. Dash, S. Ravi	Magnetic and electrical transport properties of La _{0.7} Sr _{0.3} MnO ₃ /LaFeO ₃ bilayer thin films	Journal of Magnetism and Magnetic Materials	2017	441	1	531	536
Camelia Das, Perumal Alagarsamy	Tuning the magnetic properties of stripe domain structured CoFeB films using stack structure with spacer layer thickness dependent interlayer coupling	Journal of Magnetism and Magnetic Materials	2018	448	doi: https://doi.org/10.1016/j.jmmm.2017.06.062	23	-
Junmoni Barman, S. Ravi	Study of Magnetic Compensation Behavior in Mn(Cr _{1-x} Fe _x) ₂ O ₄	Journal of Magnetism and Magnetic Materials	2017	437	-	42	50
Bibhuti. B. Dash, S. Ravi	Effect of Yttrium substitution on the structural and magnetic properties of GdCrO ₃	Journal of Magnetism and Magnetic Materials	2018	448	-	355	359
Rajkumar Modak, M. Manivel Raja, A. Srinivasan	Enhanced magneto-caloric effect upon Co substitution in Ni-Mn-Sn thin films	Journal of Magnetism and Magnetic Materials	2018	448	DOI: 10.1016/j.jmmm.2017.06.063	146	152
Arnab Kumar Das, Ramanujan Govindaraj, Ananthakrishnan Srinivasan	Structural and magnetic properties of sol-gel derived CaFe ₂ O ₄ nanoparticles	Journal of Magnetism and Magnetic Materials	2018	451	DOI: 10.1016/j.jmmm.2017.11.102	526	531
Junmoni Barman, S. Ravi	Magnetization Reversal and Tunable Exchange Bias Behavior in Mn Substituted NiCr ₂ O ₄	Journal of Materials Science	2018	53	10	7187	7198
Arnab Kumar Das, A. Srinivasan	Band gap tuning and defects suppression upon Mg doping in electrospun ZnO nanowires	Journal of Materials Science: Materials in Electronics	2017	28	DOI: 10.1007/s10854-017-6336-5	6488	6492
Arnab Kumar Das, A. Srinivasan	Magnetic and structural properties of Co doped ZnO nanowires prepared by heat treatment of electrospun PVA nanofibers containing Zn and Co acetates	Journal of Materials Science: Materials in Electronics	2018	29	https://doi.org/10.1007/s10854-017-8383-3	4351	4356
Subhadeep Chakraborty, Amarendra K. Sarma	Enhancing quantum correlation and entanglement in an optomechanical system via cross-Kerr nonlinearity	Journal of Optical Society of America B	2017	34	7	1503	1510

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Samit Kumar Gupta, Amarendra K. Sarma	Optical parametric amplifications in parity-time symmetric negative index materials	Journal of Optics	2018	47	1	115	120
Biswajit Pathak, Bosanta R. Boruah	A zonal wavefront sensor with multiple detector planes	Journal of Optics	2018	20	3	35604	-
Somnath Naskar, Subrata Saha, Tarak N. Dey, Bimalendu Deb	Electromagnetically induced transparency in two-colour ultra cold photoassociation	Journal of Physics B: Atomic, Molecular and Optical Physics	2017	50	12	125003	125010
Nawaz Sarif Mallick, Tarak N. Dey, Kanhaiya Pandey	Microwave assisted transparency in a M-system	Journal of Physics B: Atomic, Molecular and Optical Physics	2017	50	19	195502	195507
Bijita Sarma, Amarendra K. Sarma	Single-photon blockade in optomechanical photonic crystal cavity with third-order nonlinearity	Journal of Physics B: Atomic, Molecular and Optical Physics	2018	51	-	75505	-
Ashis Kundu, Subhradip Ghosh	Site occupancy, composition and magnetic structure dependencies of martensitic transformations in $Mn_2Ni(1+x)Sn(1-x)$	Journal of Physics Condensed Matter	2017	30	1	15401	-
D. C. Joshi, P. Pramanik, S. Nayak, K. Dasari, R. J. Choudhary, S. Thota	Magnetic exchange interactions and dielectric studies of $Zn_{1-x}Ni_xO-NiO$ composites	Journal of Physics D: Applied Physics	2017	50	32	325002	-
Aneeta Manjari Padhan, M. Sathish, P. Saravanan, Perumal Alagarsamy	Mechanical activation on aluminothermic reduction and magnetic properties of NiO powders	Journal of Physics D: Applied Physics	2017	50	doi: https://doi.org/10.1088/1361-6463/aa6cee	21LT01	-
R. Soni, R. George, D. C. Joshi, S. Nayak, P. Pramanik, P. Suresh, T. A. Dar, S. Thota	Dielectric Properties of $(1-x)KNbO_3-xNiO$ Two-Phase Composites	Journal of Physics D: Applied Physics (IOP)	2017	50	41	415305	-
K. Singh, K. Kumar, S. Nayak, D.C. Joshi, M.M. Alom, S. Thota, A. Chowdhury	Structural and Dielectric Properties of the Fluorite-Type $LaxCe_{1-x}O_{2-\delta}$ Ceramics	Journal of Physics D: Applied Physics (IOP)	2017	50	49	495601	-
P. Pramanik, S. Thota, S. Singh, D. C Joshi, B. Weise, A. Waske, M. S. Seehra	Effects of Cu doping on the electronic structure and magnetic properties of $MnCo_2O_4$ nanostructures	Journal of Physics: Condensed Matter	2017	29	42	425803	-
Junmoni Barman, S. Ravi	Effect of Al Substitution in Structural and Magnetic Properties of $MnCr_2O_4$	Journal of Superconductivity and Novel Magnetism	2017	31	1	99	106

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Bipul Deka, S. Ravi	Ferromagnetism in Fe-doped BaTiO ₃ Ceramics	Journal of superconductivity and novel magnetism	2017	-	DOI https://doi.org/10.1007/s10948-017-4321-0	-	-
Aakansha, Bipul Deka, S. Ravi	Magnetic and dielectric properties of Y _{3-x} Sm _x Fe ₅ O ₁₂ (x = 0 to 3.0)	Journal of superconductivity and novel magnetism	2017	-	https://doi.org/10.1007/s10948-017-4436-3	-	-
T. R. Gopal Rao, S. Ravi	Study of electrical transport and magnetic properties of Nd _{0.7} Sr _{0.3} MnO ₃ / Nd _{0.8} Na _{0.2} MnO ₃ bilayer thin films	Journal of superconductivity and novel magnetism	2018	31	4	1149	1154
Biswajit Pathak, Bosanta R. Boruah	Improvement in Error Propagation in the Shack-Hartmann type Zonal Wavefront Sensors	Journal of the Optical Society of America A	2017	34	12	2194	-
Kh. Shantakumar Singh, Alika Khare, A. K. Sharma	Effect of uniform magnetic field on laser-produced Cu plasma and the deposited particles on the target surface	Laser and Particle Beams	2017	35	2	352	361
Arpita Nath, Pooja Sharma, Alika Khare	Laser-induced metastable phases in liquids	Laser Physics Letter	2018	15	-	26001	-
K. Dharmalingam, D. Pamu, R. Anandalakshmi	Comparison of solid state synthesis of zinc calcium phosphorous oxide (ZCAP) ceramics under conventional and microwave heating methods	Materials Letters	2018	212	-	207	210
S. Ganguly, S. Basu	Adatoms in graphene nanoribbons: spintronic properties and the quantum spin Hall phase	Materials Research Express	2017	4	11	-	-
Sushrisangita Sahoo, P. Mahapatra, R. N. P. Choudhary, Perumal Alagarsamy	Influence of compositional variation on structural, electrical and magnetic characteristics of (Ba _{1-x} Gd)(Ti _{1-x} Fex)O ₃ (0.2 ≤ x ≤ 0.5)	Materials Research Express	2018	5	1	16101	-
Venkanna Kanneboina, Ramakrishna Madaka, Pratima Agarwal	Spectroscopic ellipsometry studies on microstructure evolution of a-Si:H to nc-Si:H films by H ₂ plasma exposure	Materials Today Communication	2018	15	-	18	29
Ramakrishna Madaka, Venkanna Kanneboina, Pratima Agarwal	Raman and spectroscopic ellipsometry studies of a-Si:H thin films on low-cost photo paper substrate	Materials Today Proceedings	2017	4	14	12666	12670
Venkanna Kanneboina, Ramakrishna Madaka, Pratima Agarwal	Influence of hydrogen plasma treatment of intrinsic a-Si:H layer on the performance of the c-Si/a-Si:H hetero junction solar cells	Materials Today Proceedings	2017	4	14	12726	12729
Asha Yadav, Pratima Agarwal	Laser Induced Selective Crystallization of Amorphous Silicon Thin Film for Device Applications	Materials Today Proceedings	2017	4	14	12722	12725

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Indu Kalpa Dihingia, Santabrata Das, Samir Mandal	Properties of two-temperature dissipative accretion flow around black holes	Monthly Notices of Royal Astronomical Society	2018	475	2	2164	-
Ramiz Aktar, Santabrata Das, Anuj Nandi, H. Sreehari	Estimation of mass outflow rates from dissipative accretion disc around rotating black holes	Monthly Notices of the Royal Astronomical Society	2017	471	4	4806	-
Biplob Sarkar, Santabrata Das, Samir Mandal	Properties of magnetically supported dissipative accretion flow around black holes with cooling effects	Monthly Notices of the Royal Astronomical Society	2018	473	2	2415	-
G. Rajender, P. K. Giri, B. Chaudhury	In-Situ Decoration of Plasmonic Au nanoparticles on Graphene Quantum Dots-Graphitic Carbon Nitride Hybrid and Evaluation of its Visible Light Photocatalytic Performance	Nanotechnology	2017	28	39	395703	-
Poulami Ghosh, A. K. Sharma	Two-photon induced photoluminescence and lasing in pulsed-laser deposited ZnO nanostructures pumped by continuous wave He-Ne laser	Optical Materials	2017	66	-	651	-
Satchi Kumari, Alike Khare, Reema Gupta, Monika Tomar, Vinay Gupta	Fabry-perot modes enhanced pump-probe coupling in gold micro-disk patterned ruby thin film	Optical Materials	2017	72	-	375	379
Sanasam Sunderlal Singh, Prahlad Kr. Baruah, Alike Khare, Shrikrishna N. Joshi	Effect of laser beam conditioning on fabrication of clean micro-channel on stainless steel 316L using second harmonic of Q-switched Nd:YAG laser	Optics and Laser Technology	2018	99	-	107	117
Kojam Monika Devi, Amarendra K. Sarma, Dibakar Roy Chowdhury, Gagan Kumar	Plasmon induced transparency through alternately coupled resonators in terahertz metamaterial	Optics Express	2017	25	9	10484	10493
Jitendra Kumar, H. B. Nemade, P. K. Giri	Density Functional Theory Investigation of Negative Differential Resistance and Efficient Spin Filtering in Niobium Doped Armchair Graphene Nanoribbons	Physical Chemistry Chemical Physics	2017	19	-	29685	29692
Ruma Das, Gone Rajender, P. K. Giri	Anomalous Fluorescence Enhancement and Fluorescence Quenching of Graphene Quantum Dots by Single Walled Carbon Nanotubes	Physical Chemistry Chemical Physics	2018	20	-	4527	-
Bibhas Ranjan Majhi, Saurav Samanta	Entropy corresponding to the interior of a Schwarzschild black hole	Physics Letters B	2017	770	-	314	-
Bibhas Ranjan Majhi, Saurav Samanta	P-V criticality of AdS black holes in a general framework	Physics Letters B	2017	773	-	203	-
Sandeep Sharma, Tarak N. Dey	Kerr-field induced tunable optical atomic waveguide	Physical Review A	2017	96	-	53831	-

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Sudeep Kumar Ghosh, Sebastian Greschner, Umesh K. Yadav, Tapan Mishra, Matteo Rizzi, Vijay B. Shenoy	Unconventional phases of attractive Fermi gases in synthetic Hall ribbons	Physical Review A	2017	95	-	63612	-
Manpreet Singh, Suman Mondal, B. K. Sahoo, Tapan Mishra	Quantum phases of constrained dipolar bosons in coupled one-dimensional optical lattices	Physical Review A	2017	96	-	53604	-
Sandeep Sharma, Tarak N. Dey	Phase induced transparency mediated structured beam generation in a closed-loop tripod configuration	Physical Review A	2017	96	-	33811	-
B. Bhuyan et al.	Measurement of the τ lepton polarization and $R(D^*)$ in the decay $\bar{B}D^*\tau^- \rightarrow \nu\tau$ with one-prong hadronic τ decays at Belle	Physical Review D	2018	97	-	12004	-
Subhaditya Bhattacharya, Nirakar Sahoo, Narendra Sahu	Singlet-Doublet Fermionic Dark Matter, Neutrino Mass and Collider Signatures	Physical Review D	2017	96	3	35010	-
Krishnakanta Bhattacharya, Bibhas Ranjan Majhi	Thermogeometric description of the van der Waals like phase transition in AdS black holes	Physical Review D	2017	95	10	104024	-
Krishnakanta Bhattacharya, Bibhas Ranjan Majhi, Saurav Samanta	Van der Waals criticality in AdS black holes: a phenomenological study	Physical Review D	2017	96	8	84037	-
Ananya Adhikari, Krishnakanta Bhattacharya, Chandramouli Chowdhury, Bibhas Ranjan Majhi	Fluctuation-dissipation relation in accelerated frames	Physical Review D	2018	97	4	45003	-
Biswajit Karmakar, Arunansu Sil	An A_4 realization of inverse seesaw:neutrino masses, θ_{13} and leptonic non-unitarity	Physical Review D	2017	96	1	15007	-
Purusottam Ghosh, Abhijit Kumar Saha and Arunansu Sil	Study of Electroweak Vacuum stability from extended Higgs portal of dark matter and neutrinos	Physical Review D	2018	-	-	-	-
B. Bhuyan et al.	Constraints on Oscillation Parameters from ν_e Appearance and ν_μ Disappearance in NOvA	Physical Review Letters	2017	118	-	231801	-
B. Bhuyan et al.	Search for Invisible Decays of a Dark Photon Produced in e^+e^- Collisions at BaBar	Physical Review Letters	2017	119	-	131804	-
B. Bhuyan et al.	Measurement of the Neutrino Mixing Angle θ_{23} in NOvA	Physical Review Letters	2017	118	-	151802	-

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Poulami Ghosh, A. K. Sharma	On-axis and off-axis growth of zinc oxide nanostructures via pulsed laser deposition	Physical Status Solidi A	2017	214	5	1600755	1600761
Baradhwaj Coleppa, Benjamin Fuks, P. Poullose, Shibananda Sahoo	Seeking Heavy Higgs Bosons through Cascade Decays	Phys.Rev. D	2018	97	7	75007	-
S. Ganguly, S. Basu	Spin Hall conductance in a Y-shaped junction device in presence of tunable spin-orbit coupling	Physica E: Low-dimensional Systems and Nanostructures	2017	90	-	131	136
S. Ganguly, S. Basu	Magnetic adatoms in two and four terminal graphene nanoribbons: A comparison between their spin polarized transport	Physica E: Low-dimensional Systems and Nanostructures	2018	98	-	174	183
Partha P. Dey, Alika Khare	Fabrication of Photoluminescent nc-Si:SiO ₂ Thin Films prepared by PLD	Physical Chemistry Chemical Physics	2017	19	-	21436	21445
Bijita Sarma, Amarendra K. Sarma	Quantum-interference-assisted photon blockade in a cavity via parametric interactions	Physical Review A	2017	96	-	53827	-
Subhadeep Chakraborty, Amarendra K. Sarma	Entanglement dynamics of two coupled mechanical oscillators in modulated optomechanics	Physical Review A	2018	97	-	22336	-
Ashis Kundu, Markus E. Gruner, Mario Siewert, Alfred Hucht, Peter Entel, Subhradip Ghosh	Interplay of phase sequence and electronic structure in the modulated martensites of Mn ₂ NiGa from first-principles calculations	Physical Review B	2017	96	6	64107	-
Ashis Kundu, Sheuly Ghosh, Subhradip Ghosh	Effect of Fe and Co substitution on the martensitic stability and the elastic, electronic and magnetic properties of Mn ₂ NiGa: Insights from ab initio calculations	Physical Review B	2017	96	-	174107	-
S. Thota, M. Reehuis, A. Maljuk, A. Hoser, J. U. Hoffmann, B. Weise, A. Waske, M. Krautz, D. C. Joshi, S. Nayak, S. Ghosh, P. Suresh, K. Dasari, S. Wurmehl, O. Prokhnenko, B. Büchner	Neutron diffraction study of the inverse spinels Co ₂ TiO ₄ and Co ₂ SnO ₄	Physical Review B	2017	96	1	144104	-
Ananya Mukherjee, Debasish Borah, Mrinal Kumar Das	Common Origin of Non-zero θ_{13} and Dark Matter in an S4 Flavour Symmetric Model with Inverse Seesaw	Physical Review D	2017	96	1	15014	-
Debasish Borah, Monojit Ghosh, Shivani Gupta, Sushant K. Raut	Texture zeros of low-energy Majorana neutrino mass matrix in 3+1 scheme	Physical Review D	2017	96	5	55017	-

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Debasish Borah, Aritra Gupta	New viable region of an inert Higgs doublet dark matter model with scotogenic extension	Physical Review D	2017	96	11	115012	-
Dibyendu Nanda, Debasish Borah	Common origin of neutrino mass and dark matter from anomaly cancellation requirements of a U(1) B–L model	Physical Review D	2017	96	11	115014	-
Kalpana Bora, Debasish Borah, Debajyoti Dutta	Probing Majorana neutrino textures at DUNE	Physical Review D	2017	96	7	75006	-
Debasish Borah, Arnab Dasgupta, Sudhanwa Patra	Common origin of 3.55 keV x-ray line and gauge coupling unification with left-right dark matter	Physical Review D	2017	96	11	115019	-
Srimoy Bhattacharya, Soumitra Nandi and Sunando K. Patra	Looking for possible new Physics in $BD^{(*)}\tau\nu\tau$ in light of recent data	Physical Review D	2017	95	7	75012	-
Debasish Borah, Sudhanwa Patra	Universal seesaw and $0\nu\beta\beta$ in new 3331 left-right symmetric model	Physics Letters B	2017	771	-	318	-
Debasish Borah, Soumya Sadhukhan, Shibananda Sahoo	Lepton Portal Limit of Inert Higgs Doublet Dark Matter with Radiative Neutrino Mass	Physics Letters B	2017	771	-	624	-
T. Santhosh Kumar, N. Srinivas Rao, A. Vinod, M. S. Rathore, A. P. Pathak, F. Singh, D. Pamu	High energy ion beam irradiation effects on structural and optical properties of (Mg _{0.95} Co _{0.05}) TiO ₃ thin films	Radiation Effects and Defects in Solids	2018	doi: DOI:10.1080/10420150.2018.1442452		-	-
Santanu Konwar, Bosanta R. Boruah	Current induced fluctuations in the orientation of the beam diffracted by a liquid crystal spatial light modulator	Review of Scientific Instruments	2017	88	6	66104	-
Ashis Kundu, Srikrishna Ghosh, Rudra Banerjee, Subhradip Ghosh, Biplab Sanyal	New Quaternary Half-metallic ferromagnets with large Curie temperatures	Scientific Reports	2017	7	1	1803	-
Maidul Islam, S. Jagan Mohan Rao, Gagan Kumar, Bishnu P. Pal, Dibakar Roy Chowdhury	Role of Resonance modes on Terahertz Metamaterials based thin film sensors	Scientific Reports	2017	7	-	7355	-
Koushik Paul, Amarendra K. Sarma	Transitionless quantum driving based wireless power transfer	Scientific Reports	2018	8	-	4134	-
G. Pandey, J. Saikia, S. Sasidharan, D. C. Joshi, S. Thota, H. B. Nemade, N. Chaudhary, V. Ramakrishnan	Modulation of Peptide Based Nano-Assemblies with Electric and Magnetic Fields	Scientific Reports	2017	7	-	2726	-

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Ramesh Ghosh, Ruma Das, P. K. Giri	Label-free Glucose Detection over a Wide Dynamic Range by Mesoporous Si Nanowires Array based on Anomalous Photoluminescence Enhancement	Sensor & Actuators B	2018	260	-	693	704
Joydip Ghosh, Ramesh Ghosh, P. K. Giri	Tuning the Visible Photoluminescence in Al Doped ZnO Thin Film and its Application in Label-free Glucose Detection	Sensors & Actuators B: Chemical	2018	254	-	681	689
Poulami Ghosh, A. K. Sharma	Highly c-axis oriented growth and optical characterization of ZnO pore-like structures surrounded by craters via pulsed laser deposition	Silicon	2018	10	2	645	650
Venkanna Kanneboina, Ramakrishna Madaka, Pratima Agarwal	High open circuit voltage c-Si/a-Si:H hetero junction solar cells: Influence of hydrogen plasma treatment studied by spectroscopic ellipsometry	Solar Energy	2018	166	C	255	266
M. K. Poddar, S. Sharma, S. Pattipaka, D. Pamu, V. S. Mohalkar	Ultrasound-Assisted Synthesis of poly(MMA-co-BA)/ZnO Nanocomposites with Enhanced Physical Properties	Ultrason. Sonochem.	2017	39	-	782	791
Nipon Deka, Maidul Islam, Prashant K. Sarswat, Gagan Kumar	Enhancing solar cell efficiency with plasmonic behavior of double metal nanoparticle system Author links open overlay panel	Vacuum	2018	152	-	285	-

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Amit Batghare, Neha Singh, Vijayanand S. Moholkar	Investigations in ultrasound-induced enhancement of astaxanthin production by wild strain Phaffiarhodozyma MTCC 7536	Bioresource Technology	2018	254	-	166	173
Ritesh S. Malani, Shubham Patil, Kuldeep, Sankar Chakma, Arun Goyal, Vijayanand Suryakant Moholkar	Mechanistic analysis of ultrasound-assisted biodiesel synthesis with Cu ₂ O catalyst and mixed oil feedstock using continuous (packed bed) and batch (Slurry) reactors	Chemical Engineering Science	2017	170	-	743	755
Pankaj Kalita, Sangeeta Borah, Dudul Das	Design and performance evaluation of a novel solar distillation unit	Desalination	2017	416	-	65	75
Asha Yadav, Pratima Agarwal	Laser Induced Selective Crystallization of Amorphous Silicon Thin Film for Device Applications	Materials Today Proceedings	2017	4	14	12722	12725

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P. Kalitauhao Huang, Liang Gao, Zhang Yi, Kang Tai, Paweena Prapainainar, Akhil Garg	An Application of Evolutionary System Identification Algorithm in modelling of Energy Production System	Measurement	2018	114	-	122	131
Dudul Das, Pankaj Kalita, Omkar Roy	Flat plate hybrid photovoltaic- thermal (PV/T) system: A review on design and development	Renewable and Sustainable Energy Reviews	2018	84	-	111	130

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Lalit Goswami, N. Arul Manikandan, K. Pakshirajan, G. Pugazhenth	Simultaneous heavy metal removal and anthracene biodegradation by the oleaginous bacteria Rhodococcus opacus	3 Biotech	2017	DOI 10.1007/s13205-016-0597-1	7:37	-	-
Narendra Naik Deshavath, Mood Mohan, Venkata Dasu Veeranki, Vaibhav V. Goud, Srinivasa Rao Pinnamaneni, Tamal Benarjee	Dilute acid pretreatment of sorghum biomass to maximize the hemicellulose hydrolysis with minimized levels of fermentative inhibitors for bioethanol production	3 Biotech	2017	7	-	1	12
Narendra Naik Deshavath, V. Venkata Dasu, V. V. Goud, P. Srinivasa Rao	Development of dilute sulfuric acid pretreatment method for the enhancement of xylose fermentability	Biocatalysis and Agricultural Biotechnology	2017	11	-	224	230
M. Gopi Kiran, Kannan Pakshirajan, Gopal Das	A new application of anaerobic rotating biological contactor reactor for heavy metal removal under sulfate reducing condition	Chemical Engineering Journal	2017	321	-	6	75
M. Gopi Kiran, K. Pakshirajan, Gopal Das	An overview of sulfidogenic biological reactors for the simultaneous treatment of sulfate and heavy metal rich wastewater	Chemical Engineering Science	2017	158	-	606	620
D. Bhattacharjee, C. Basu, Q. Bhardwaj, S. Mal, S. Sahu, R. Sur, K. P. Bhabak	Design, Synthesis and Anti-Cancer Activities of Benzyl Analogues of Garlic-Derived Diallyl Disulfide (DADS) and the Corresponding Diselenides	ChemistrySelect	2017	2	-	7399	7406

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B. Das, S. Patra	Multisubstrate specific flavin containing monooxygenase from <i>Chlorella pyrenoidosa</i> with potential application for phenolic wastewater remediation and biosensor application	Environmental Technology	2017	doi: 10.1080/09593330.2017.1349838		1	17
B. P. Sahariah, J. Anandkumar, S. Chakraborty	Stability of continuous and fed batch sequential anaerobic-anoxic-aerobic moving bed bioreactor systems at phenol shock load application	Environmental Technology	2017	doi: 10.1080/09593330.2017.1343388		1	10
Vishan I, Sivaprakasam S, Kalamdhad A.	Biosorption of lead using <i>Bacillus badius</i> AK strain isolated from compost of green waste (water hyacinth)	Environmental Technology	2017	38	13-14	1812	1822
Mood Mohan, Papu Kumar Naik, Tamal Banerjee, Vaibhav V. Goud, Sandip Paul	Solubility of Glucose in Tetrabutylammonium Bromide based Deep Eutectic Solvents: Experimental and Molecular Dynamic Simulations	Fluid Phase Equilibria	2017	448	-	168	177
V. B. Barua, A. S. Kalamdhad	Anaerobic biodegradability test of water hyacinth after microbial pretreatment to optimise the ideal F/M ratio	Fuel	2018	2017	-	91	97
Hasnahana Chetia, Debajyoti Kabiraj, Deepika Singh, Ponnala Vimal Mosahari, Suradip Das, Pragya Sharma, Kartik Neog, Swagata Sharma, P. Jayaprakash, Utpal Bora	De novo transcriptome of the muga silkworm, <i>Antheraea assamensis</i> (Helfer)	Gene (Elsevier)	2017	611	-	54	65
Ajeet Singh, Poulami Datta, Lalit M. Pandey	Deciphering the mechanistic insight into the stoichiometric ratio dependent behavior of Cu(II) on BSA fibrillation	International Journal of Biological Macromolecules	2017	97	-	662	670
Bibhuti Naik, Papu Kumar Naik, Sanjaya Kumar Pattanayak	Ground water quality assessment using Canadian water quality index around Jurudi mining area, Odisha, India	International Journal of Current Research	2017	9	8	55434	55442
I. Vishan, S. Senthilkumar, A. S. Kalamdhad	Isolation and Identification of bacteria during rotary drum composting of green waste (Water hyacinth)	International Journal of Recycling of Organic Waste in Agriculture	2017	6	-	245	253
V. B. Barua, A. S. Kalamdhad	Biochemical methane potential test of untreated and hot air oven pretreated water hyacinth: A comparative study	Journal of Cleaner Production	2017	166	-	273	284

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M. Gopi Kiran, Kannan Pakshirajan, Gopal Das	Heavy metal removal from aqueous solution using sodium alginate immobilized sulfate reducing bacteria: mechanism and process optimization	Journal of Environmental Management	2018	-	-	-	-
M. Gopi Kiran, K. Pakshirajan, Gopal Das	Heavy metal removal from multicomponent system by sulfate reducing bacteria: Mechanism and cell surface characterization	Journal of Hazardous Materials	2017	324	-	62	70
Papu Kumar Naik, Sandip Paul, Tamal Banerjee	Liquid Liquid Equilibria measurements for the extraction of poly aromatic nitrogen hydrocarbons with a low cost Deep Eutectic Solvent: Experimental and theoretical insights	Journal of Molecular Liquids	2017	243	--	542	552
Papu Kumar Naik, Mood Mohan, Tamal Banerjee, Sandip Paul, Vaibhav V. Goud	Molecular Dynamic Simulations for the Extraction of Quinoline from Heptane in the Presence of Low Cost Phosphonium Based Deep Eutectic Solvent	The Journal of Physical Chemistry B	2018	122	14	4006	4015
Lalit Goswami; R. V. Kumar; N. Arul Manikandan, K. Pakshirajan, G. Pugazhenth	Simultaneous polycyclic aromatic hydrocarbon degradation and lipid accumulation by Rhodococcus opacus for potential biodiesel production	Journal of Water Process Engineering	2017	17	-	1	10
D. Singh, D. Kabiraj, P. Sharma, H. Chetia, P. V. Mosahari, K. Neog, U. Bora	The mitochondrial genome of Muga silkworm (Antheraea assamensis) and its comparative analysis with other lepidopteran insects	PloS one	2017	doi.org/10.1371/journal.pone.0188077		1	13
Lalit Goswami; R. V. Kumar, N. Arul Manikandan, K. Pakshirajan, G. Pugazhenth	Anthracene biodegradation by oleaginous Rhodococcus opacus for potential biodiesel application	Polycyclic aromatic Compounds	2017	DOI.10.1080/10406638.2017.1302971		-	-
V. B. Barua, V. V. Goud, A. S. Kalamdhad	Microbial Pretreatment of Water Hyacinth for Enhanced Hydrolysis followed by Biogas Production	Renewable Energy	2018	126	-	121	129
Lalit Goswami, M. M. Tejas Namboodiri, R. V. Kumar, K. Pakshirajan, G. Pugazhenth	Biodiesel production potential of oleaginous Rhodococcus opacus grown on biomass gasification wastewater	Renewable Energy	2017	105	-	400	406
M. P. Mohanty, B. Brahmacharimayum, P. K. Ghosh	Effects of phenol on sulfate reduction by mixed microbial culture: kinetics and bio-kinetics analysis	Water Science and Technology	2018	77	4	1079	1088
I. Vishan, A. Laha, A. Kalamdhad	Biosorption of Pb(II) by Bacillus badius AK strain originating from rotary drum compost of water hyacinth	Water Science and Technology	2017	75	-	1071	1083

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Upashi Goswami, Anushree Dutta, Asif Raza, Raghuram Kandimalla, Sanjeeb Kalita, Siddhartha Sankar Ghosh, Arun Chattopadhyay	Transferrin-Copper Nanocluster-Doxorubicin Nanoparticles as Targeted Theranostic Cancer Nanodrug	ACS Applied Material & Interfaces	2018	10	4	3282	3294
Deepanjalee Dutta, Sunil Kumar Sailapu, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Phenylboronic Acid Templated Gold Nanoclusters for Mucin Detection Using a Smartphone-Based Device and Targeted Cancer Cell Theranostics	ACS Applied Materials & Interfaces	2018	10	4	3210	3218
Upashi Goswami, Anushree Dutta, Asif Raza, Raghuram Kandimalla, Sanjeeb Kalita, Siddhartha Sankar Ghosh, Arun Chattopadhyay	Transferrin-Copper Nanocluster-Doxorubicin Nanoparticles as Targeted Theranostic Cancer Nanodrug	ACS Applied Materials & Interfaces	2018	10	4	3282	3294
P. Gopikrishna, N. Meher, P. K. Iyer	Functional 1, 8-Naphthalimide AIE/AIEEgens: Recent advances and prospects	ACS Applied materials & interfaces	2017	DOI: 10.1021/acsami.7b14473		-	-
A. H. Malik, A. Kalita, P. K. Iyer	Development of well preserved, substrate-versatile latent fingerprints by aggregation induced enhanced emission active conjugated polyelectrolyte	ACS Applied Materials & Interfaces	2017	9	-	37501	37508
Bolleddu Ravi, Snigdha Chakraborty, Mitradiip Bhattacharjee, Partho Sarathi Gooh Pattader, Dipankar Bandyopadhyay	Pattern Directed Ordering of Spin-dewetted Liquid Crystal Micro or Nanodroplets as Pixelated Light Reflectors and Locomotives	ACS Applied Materials and Interfaces	2017	9	-	1066	-
Bandhan Chatterjee, Archita Ghoshal, Arun Chattopadhyay, and Siddhartha Sankar Ghosh	dGTP-Templated Luminescent Gold Nanocluster-Based Composite Nanoparticles for Cancer Theranostics	ACS Biomaterials Science & Engineering	2018	4	3	1005	1012
Tamanna Bhuyan, Amit Kumar Singh, Deepanjalee Dutta, Aynur Unal, Siddhartha Sankar Ghosh, Dipankar Bandyopadhyay	Magnetic Field Guided Chemotaxis of iMushbots for Targeted Anticancer Therapeutics	ACS Biomaterials Science & Engineering	2017	3	-	1627	-
Ravi Biroju, D. Das, R. Sharma, S. Pal, L. P. L. Mawlong, K. Bhorkar, P. K. Giri, A. Singh, T. N. Narayanan	On the Hydrogen Evolution Reaction Activity of Graphene-MoS ₂ van der Waals Heterostructures	ACS Energy Letters	2017	2	6	1355	1361

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Sunil Kumar Sailapu, Deepanjalee Dutta, Amaresh Kumar Sahoo, Siddhartha Sankar Ghosh, Arun Chattopadhyay	Single Platform for Gene and Protein Expression Analyses Using Luminescent Gold Nanoclusters	ACS Omega	2018	3	2	2119	2129
S. Vasimalla, N. V. V. Subbarao, M. Gedda, D. K. Goswami, P. K. Iyer	Effects of dielectric material, HMDS layer, and channel length on the performance of the perylenediimide-based organic field-effect transistors	ACS Omega	2017	2	-	2552	2560
A. Dey, A. Singh, D. Das, P. K. Iyer	High performance ZnPc thin film based photo-sensitive organic field effect transistors: influence of multilayer dielectric systems and thin film growth structure	ACS Omega	2017	2	-	21241	21248
Amaresh Kumar Sahoo, Sunil Kumar Sailapu, Deepanjalee Dutta, Subhamoy Banerjee, Siddhartha Sankar Ghosh, Arun Chattopadhyay	DNA-Templated Single Thermal Cycle Based Synthesis of Highly Luminescent Au Nanoclusters for Probing Gene Expression	ACS Sustainable Chemistry & Engineering	2018	6	2	2142	2151
G. Rajender, J. Kumar, P. K. Giri	Interfacial Charge Transfer in TiO ₂ Nanoparticle-Graphene Quantum Dot Hybrid and Its influence on the Enhanced Visible Light Photocatalysis	Applied Catalysis B	2018	224	-	960	972
Mitradip Bhattacharjee, Harshal Nemade, Dipankar Bandyopadhyay	Nano-Enabled Paper Humidity Sensor for Mobile Based Point-of-Care Lung Function Monitoring	Biosensors & Bioelectronics	2017	94	-	544	-
Neha Arora, S. Lalitha Gavya, Siddhartha Sankar Ghosh	Multi-facet implications of PEGylated lysozyme stabilized-silver nanoclusters loaded recombinant PTEN cargo in cancer theranostics	Biotechnology and Bioengineering	2018	DOI: 10.1002/bit.26553		-	-
Sharmila Narayanan, Deepanjalee Dutta, Neha Arora, Lingaraj Sahoo, Siddhartha Sankar Ghosh	Phytaspase-loaded, Mn-doped ZnS quantum dots when embedded into chitosan nanoparticles leads to improved chemotherapy of HeLa cells using in cisplatin	Biotechnology Letters	2017	39	10	1591	1598
Nayan Mani Das, Sunny Kumar, Dipankar Bandyopadhyay	UV-Ozone Mediated Miniaturization of Dewetted Polymeric Nanostructures on Graphene-Oxide-flakes for Enhanced Raman Scattering	Carbon	2017	121	-	612	624

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Karuna Mahato, Neha Arora, P. R. Bagdi, R. Gattu, Siddhartha Sankar Ghosh, Abu Taleb Khan	An oxidative cross-coupling reaction of 4-hydroxydithiocoumarin and amines/thiols using a combination of I2 and TBHP: access to lead molecules for biomedical applications	Chemical Communications	2018	54	-	1513	1516
Srestha Basu, Anumita Paul, Arun Chattopadhyay	Zinc Coordinated Hierarchical Organization of Ligand Stabilized Gold Nanoclusters for Chiral Recognition Supplemented with Separation	Chemistry – A European Journal	2017	23	-	9137	9143
P. Gopikrishna, D. Das, P. K. Iyer	Color tunable donor-acceptor electroluminescent copolymers: synthesis, characterization, photophysical properties and led fabrication	Chemistry Select	2017	2	-	7044	7049
D. Das, P. Gopikrishna, A. Singh, A. Dey, P. K. Iyer	Solution Processed WPLEDs with good color stability and high color rendering index via a phosphor-sensitized system	Chemistry Select	2017	2	-	3184	3190
A. Gupta, S. R. Dhakate, P. Pal, A. Dey, P. K. Iyer, D. K. Singh	Effect of graphitization temperature on structure and electrical conductivity of poly-acrylonitrile based carbon fibers	Diamond Relat. Mater.	2017	78	-	31	38
Saptak Rarotra, Tapas Kumar Mandal, Dipankar Bandyopadhyay	Microfluidic Electrolyzers for Production and Separation of Hydrogen from Naturally Abundant Solar Energy and Sea Water	Energy Technology	2017	5	-	1208	-
Sunny Kumar, Bhaskarjyoti Sarma, Ashok Kumar Dasmahapatra, Amaresh Dalal, Dipankar Narayan Basu and Dipankar Bandyopadhyay	Field Induced Anomalous Spreading, Oscillation, Ejection, Spinning, and Breaking of Oil Droplets on Strongly Slipping Water Surface	Faraday Discussion	2017	199	-	125	128
Manash Pratim Borthakur, Dipankar Bandyopadhyay, Gautam Biswas	Electric field mediated separation of water-ethanol mixture in carbon-nanotubes integrated to nanoporousgraphene membrane	Faraday Discussions	2018	-	-	-	-
J. Kumar, H. B. Nemade and P. K. Giri	Adsorption of Small Molecules on Niobium Doped Graphene: A Study Based on Density Functional Theory	IEEE Electron Device Letters	2018	39	2	296	299
Ujjowol Barman, Gargi Mukhopadhyay, Namami Goswami, Siddhartha Sankar Ghosh, Paily P. Roy	Detection of Glutathione by Glutathione-S-Transferase- Nanoconjugate Ensemble Electrochemical Device	IEEE Transactions on NanoBioscience	2017	16	4	271	279

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Vanitha Selvarajan, Anil P. Bidkar, Rajib Shome, Aditi Banerjee, Nidhi Chaubey, Siddhartha Sankar Ghosh, Pallab Sanpui	Studying in vitro phagocytosis of apoptotic cancer cells by recombinant GMCSF-treated RAW 264.7 macrophages	International Journal of Biological Macromolecules	2017	102	-	1138	1145
Ravi Biroju, P. K. Giri	Strong Visible and Near Infrared Photoluminescence from ZnONanorods/ Nanowires Grown on Single Layer Graphene Studied Using Sub-band Gap Excitation	Journal of Applied Physics	2017	122	-	44302	-
Kartick Mondal, Abir Ghosh, Joydip Chaudhuri, Dipankar Bandyopadhyay	Electric Field Mediated Instability Modes and Fréedericksz Transition of Ultrathin Nematic Films	Journal of Fluid Mechanics	2018	834	-	464	-
A. Pal, G. Natu, K. Ahmad, A. Chattopadhyay	Phosphorus Induced Crystallinity in Carbon Dots for Solar Light Assisted Seawater Desalination	Journal of Materials Chemistry A	2018	6	-	4111	4118
Srestha Basu, Upashi Goswami, Anumita Paul, Arun Chattopadhyay	Crystalline Assembly of Gold Nanoclusters for Mitochondria Targeted Cancer Theranostics	Journal of Materials Chemistry B	2018	6	-	1650	1657
A. Singh, A. Dey, D. Das, P. K. Iyer	Combined influence of plasmonic metal nanoparticles and dual cathode buffer layers for highly efficient rrP3HT:PCBM-based bulk heterojunction solar cells	Journal of Materials Chemistry C	2017	5	-	6578	6587
Sabyasachi Pramanik, Satyapriya Bhandari, Arun Chattopadhyay	Zinc quinolate complex decorated CuInS ₂ /ZnS core/shell quantum dots for white light emission	Journal of Materials Chemistry C	2017	5	-	7291	7296
Upashi Goswami, Srestha Basu, Anumita Paul, Siddhartha Sankar Ghosh, Arun Chattopadhyay	White light emission from gold nanoclusters embedded bacteria	Journal of Materials Chemistry C	2017	5	47	12360	12364
Sk. Md. Obaidulla, S. Singh, Y. N. Mohapatra, P. K. Giri	Ambient condition bias stress stability of vanadium (IV) oxide-phthalocyanine based p-channel organic field-effect transistors	Journal of Physics D: Applied Physics	2018	51	-	15110	-
Shilaj Roy, Sabyasachi Pramanik, Satyapriya Bhandari, Arun Chattopadhyay	Surface Complexed ZnO Quantum Dot for White Light Emission with Controllable Chromaticity and Color Temperature	Langmuir	2017	33	51	14627	14633

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P. Gopikrishna, L. R. Adil, P. K. Iyer	Bridge-driven aggregation control in dibenzofulvene–naphthalimide based donor–bridge–acceptor systems: enabling fluorescence enhancement, blue to red emission and solvatochromism	Materials Chemistry Frontiers	2017	1	-	2590	2598
S. Trivedi, H. B. Nemade	Highly sensitive SH-SAW resonator with SiO ₂ trenches for biosensing application	Materials Today: Proceedings (Elsevier)	2017	4	9	10427	10431
S. Trivedi, H. B. Nemade	Finite element simulation of a highly sensitive SH-SAW delay line sensor with SiO ₂ micro-ridges	Microsystem Technologies	2018	-	-	1	11
Bandhan Chatterjee, Asif Raza, Siddhartha Sankar Ghosh	Developing single-entity theranostic: drug-based fluorescent nanoclusters with augmented cytotoxicity	Nanomedicine	2017	13	3	283	295
Anil Bidkar, Pallab Sanpui, Siddhartha Sankar Ghosh	Efficient induction of apoptosis in cancer cells by paclitaxel-loaded selenium nanoparticles	Nanomedicine	2017	12	21	2641	2651
G. Rajender, P. K. Giri, B. Chaudhury	In-Situ Decoration of Plasmonic Au nanoparticles on Graphene Quantum Dots-Graphitic Carbon Nitride Hybrid and Evaluation of its Visible Light Photocatalytic Performance	Nanotechnology	2017	28	39	395703	-
A. Singh, A. Dey, P. K. Iyer	Influence of molar mass ratio, annealing temperature and cathode buffer layer on power conversion efficiency of p3ht:pc71bm based organic bulk heterojunction Solar Cell	Organic Electronics	2017	50	-	428	434
Ruma Das, Gone Rajender, P. K. Giri	Anomalous Fluorescence Enhancement and Fluorescence Quenching of Graphene Quantum Dots by Single Walled Carbon Nanotubes	Phys. Chem. Chem. Phys.	2018	20	-	4527	-
Jitendra Kumar, H. B. Nemade, P. K. Giri	Density Functional Theory Investigation of Negative Differential Resistance and Efficient Spin Filtering in Niobium Doped Armchair GrapheneNanoribbons	Physical Chemistry Chemical Physics	2017	19	-	29685	29692
Jitendra Kumar, Harshal B. Nemade, Pravat K. Giri	Density functional theory investigation of negative differential resistance and efficient spin filtering in niobium-doped armchair graphenenanoribbons	Physical Chemistry Chemical Physics	2017	19	-	29685	29692
Manash Pratim Borthakur, Gautam Biswas, Dipankar Bandyopadhyay	Transient hydrodynamics of compound droplets inside capillary tubes	Physical Review E	2018	-	-	-	-

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Manash Pratim Borthakur, Gautam Biswas, Dipankar Bandyopadhyay	Formation of liquid drops at orifice and dynamics of pinch-off in liquid jets	Physical Review E	2017	96	-	13115	-
Abir Ghosh, Dipankar Bandyopadhyay, Jayati Sarkar, Ashutosh Sharma	Hierarchical micro/nano-fabrication by pattern directed contact instabilities of thin viscoelastic films	Physical Review Fluids	2017	2	-	124004	-
R. Ratha, A.Singa, T. Bhim Raju, P. K. Iyer	Insight into the synthesis and fabrication of 5, 6-alt-benzothiadiazole based d- π -a conjugated copolymers for bulk-heterojunction solar cell	Polymer Bulletin	2017	19	-	1	19
S. Lalitha Gavya, Neha Arora, Siddhartha Sankar Ghosh	Retention of functional characteristics of glutathione-S –transferase and lactate dehydrogenase-A in fusion protein	Preparative Biochemistry & Biotechnology	2017	DOI: 10.1080/10826068.2017.1405022		-	-
Asif Raza, Archita Ghoshal, S. Chockalingam, Siddhartha Sankar Ghosh	Connexin-43 enhances tumor suppressing activity of artesunate via gap junction-dependent as well as independent pathways in human breast cancer cells	Scientific Reports	2017	7	-	-	-
Lin Xu, Dipankar Bandyopadhyay, Dinesh Sankar Reddy Puchalapalli, Ashutosh Sharma, Sang Woo Joo	Giant Slip Induced Anomalous Dewetting of an Ultrathin Film on a Viscous Sublayer	Scientific Reports	2017	7	-	14776	-
Ramesh Ghosh, Ruma Das, P. K. Giri	Label-free Glucose Detection over a Wide Dynamic Range by Mesoporous Si Nanowires Array based on Anomalous Photoluminescence Enhancement	Sensor & Actuators B	2018	260	-	693	704
Joydip Ghosh, Ramesh Ghosh, P. K. Giri	Tuning the Visible Photoluminescence in Al Doped ZnO Thin Film and its Application in Label-free Glucose Detection	Sensors & Actuators B: Chemical	2018	254	-	681	689
N. V. V. Subbarao, S. Mandal, M. Gedda, P. K. Iyer, D. K. Goswami	Effect of temperature on hysteresis of dipolar dielectric layer based organic field-effect transistors: A temperature sensing mechanism	Sensors and Actuators A: Physical	2018	269	-	491	499
Tamanna Bhuyan, Mitradip Bhattacharjee, Amit Kumar Singh, Siddhartha Sankar Ghosh, DipankarBandyopadhyay	Boolean-Chemotaxis of Logibots Deciphering the Motions of Self-Propelling Microorganisms	Soft Matter	2018	-	-	-	-

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Ashok Kumar Dasmahapatra	Effect of Composition Asymmetry on the Phase Separation and Crystallization in Double Crystalline Binary Polymer Blends: A Dynamic Monte Carlo Simulation Study	The Journal of Physical Chemistry B	2017	121	23	5853	5866
Anushree Dutta, Arun Chattopadhyay	Surface and Tip-Enhanced Raman Spectroscopy at the Plasmonic Hot Spot of a Coordination Complex-Conjugated Gold Nanoparticle Dimer	The Journal of Physical Chemistry C	2017	121	34	18854	18861
P. Gopikrishna, D. Das, L. R. Adil, P. K. Iyer	Saturated and stable white electroluminescence from linear single polymer systems based on polyfluorene and mono-substituted dibenzofulvene derivatives	The Journal of Physical Chemistry C	2017	121	-	18137	18143
Kamal Kumar Paul, P. K. Giri	Role of Surface Plasmons And Hot Electrons On The Strong Visible Light Photocatalysis By Defect Enriched Ag@TiO ₂ Nanorods	The Journal of Physical Chemistry C	2017	121	-	20016	-
S. Trivedi, H. B. Nemade	Simulation of a Love wave device with ZnO nanorods for high mass sensitivity	Ultrasonics	2018	84	9	150	161

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K. Das, S. Singha, K. Chaturvedi	Life processes of Killer Whales: A Mathematical Approach	Ann Aquac Res	2017	4	4	1044/1	1044/9
S. Singha, K. Das, N. Jha	Nano-Systems for Micro-Nutrient Delivery in Aquaculture: A Critical Analysis	Ann Aquac Res	2017	4	4	1046/1	1046/12
B. Saha, C. Devi, M. Khwairakpam, A. S. Kalamdhad	Vermicomposting and anaerobic digestion-viable alternative options for terrestrial weed management-a review	Biotechnology Reports	2017	17	-	70	76
J. Hazarika, U. Gosh, A. S. Kalamdhad, M. Khwairakpam	Transformation of elemental toxic metals into immobile fractions in paper mill sludge through rotary drum composting	Ecological Engineering	2017	101	-	185	192

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P. Borah, P. Singh, L. Rangan, T. Karak, S. Mitra	Mobility, bioavailability and ecological risk assessment of cadmium and chromium in soils contaminated by paper mill wastes	Groundwater for Sustainable Development	2018	-	-	-	-
P. Singh, S. Mitra, D. Majumdar, P. Bhattacharyya, A. Prakash, P. Borah, A. Paul, L. Rangan	Nutrient and enzyme mobilization in earthworm casts: A comparative study with addition of selective amendments in undisturbed and agricultural soils of a mountain ecosystem	International Biodeterioration & Biodegradation	2017	119	-	437	447
K. Das, N. H. Gazi, S. Singha, S. Pinelas	Nonlinear dynamics of expression of BMAL1: a mathematical study	Nonlinear Studies	2018	25	1	223	240

Conference Papers

Biosciences and Bioengineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Riddhi Bannerjee, Rachayeeta Deb, Shirisha Nagotu	Uptake and intracellular fate of nona-arginine cell penetrating peptide in yeast	10th Conference on Yeast Biology, Jawaharlal Nehru University, New Delhi	2018
Nayan Moni Deori, Shirisha Nagotu	Characterizing the dual targeting and function of the peroxisomal protein Pex30	10th Conference on Yeast Biology, Jawaharlal Nehru University, New Delhi	2018
D. S. Ngiime, A. Tiwari, R. Tamuli	Cellular role of zinc transporter in <i>Neurospora crassa</i> .	10th International Conference on Yeast Biology: Model Yeasts to Fungal Pathogen, JNU	2018
Arun Dhillon, Arun Goyal	Recombinant rhamnogalacturonan lyase (CtRGLf) from <i>Clostridium thermocellum</i> and its use in textile processing	12th Carbohydrate Bioengineering Meeting, Vienna	2017
Vikky Rajulapati, Arun Goyal	A new family member of Carbohydrate Esterase 8, pectin methyl esterase (CtPME) from <i>Clostridium thermocellum</i> and its food applications	12th Carbohydrate Bioengineering Meeting, Vienna	2017
Aruna Rani, Kedar Sharma, Arun Goyal	Insights into the structural characteristics of chondroitin AC lyase PsPL8A from <i>Pedobacter saltans</i> .	12th Carbohydrate Bioengineering Meeting, Vienna	2017
Rwivoo Baruah, Barsha Deka, Arun Goyal	Synthesis of in situ prebiotic isomalto-oligosaccharides in mango and pineapple juices using dextranase from <i>Weissella cibaria</i> RBA12	12th Carbohydrate Bioengineering Meeting, Vienna	2017
Kedar Sharma, Arun Goyal	Biochemical characterization and deciphering the mode of action of recombinant endo β -1, 4 xylanase (PsGH10) from <i>Pedobacter saltans</i> DSM12145	14th BRSI Convention and International Conference (BRSI-2017), CSIR-NEERI, Nagpur	2017
R. Tamuli, D. Gohain, A. Roy, D. Baruah, A. Kumar, N. K. Marak, P. Das, A. Barman, R. Deka, R. Kumar, V. Laxmi	Calcium singling genes are critical for growth, development, and circadian clock in <i>Neurospora crassa</i>	14th European Conference on Fungal Genetics (ECFG14) Conference, Haifa, Israel	2018
R. Tamuli, D. Gohain, A. Roy, D. Baruah, A. Kumar, N. K. Marak, P. Das, A. Barman, R. Deka, R. Kumar, V. Laxmi, S. D. Ngime, A. Tiwari	Calcium signaling genes regulate multiple cell functions in <i>Neurospora crassa</i>	14th European Conference on Fungal Genetics (ECFG14) conference, The Technion, Haifa, Israel	2018
Arun Dhillon, Kedar Sharma, Vikky Rajulapati, Arun Goyal	Rgl-CBM35 of family 35 Carbohydrate Binding Module (CBM) from <i>Clostridium thermocellum</i> represents first CBM targeting rhamnogalacturonan I and mediating binding by two sites	23rd INPEC (International Network of Protein Engineering Centers) Meeting Protein Structure, function and Engineering, 9-11 Nov 2017, Bose Institute, Kolkata	2017
Anil Kumar Verma, Arun Goyal, Filipe Freire, Carlos M. G. A. Fontes, Shabir Najmudin	Crystal structure and reaction mechanism of glucuronoxylan endo- β -1, 4-xylanase	24th Congress & General Assembly of the International Union of Crystallography 2017 (IUCr 2017), Hyderabad	2017

Conference Papers

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Prerana Gogoi, Shankar Prasad Kanaujia	Structural and functional characterization of ribose-1,5-bisphosphate isomerase in archaea	24th Congress and General Assembly of International Union of Crystallography (IUCr 2017), Hyderabad	2017
Monika Chandravanshi, Shankar Prasad Kanaujia	Structural insight into the glycerophosphocholine binding protein of ABC transporter	24th Congress and General Assembly of International Union of Crystallography (IUCr 2017), Hyderabad	2017
Suraj Kumar Mandal, Shankar Prasad Kanaujia	In silico characterization of a potential Zn ⁺ ABC transporter	24th Congress and General Assembly of International Union of Crystallography (IUCr 2017), Hyderabad	2017
Angshu Dutta, Shankar Prasad Kanaujia	UgpB protein dominantly follows Sec translocation pathway	24th Congress and General Assembly of International Union of Crystallography (IUCr 2017), Hyderabad, India	2017
Kedar Sharma, Shadab Ahmed, Carlos M. G. A. Fontes, Shabir Najmudin, Arun Goyal	Low-resolution structure analysis of α -L-arabinofuranosidase (CtGH43) by SAXS	24th Congress & General Assembly of the International Union of Crystallography 2017 (IUCr 2017), Hyderabad	2017
D. Reshmi, L. Rangan	Genome size and Ty1 copia retroelements in biofuel crops	24th ISCB Frontier Research in Chemistry & Biology Interface, Manipal University, Jaipur	2018
Rakhi Chaturvedi	Cellular Totipotency and Bioaccumulation Capabilities of Plant Cells using Plant Tissue Culture Techniques	2nd Pan IIT Biotech Meet 2017 on Synthetic Biology and Cardiovascular diseases	2017
Shweta Singh, Arun Goyal	Strain improvement of <i>Bacillus amyloliquefaciens</i> SS35 by UV and chemical mutagenesis for producing hyperactive mutant strain for improved β -glucanase and xylanase activities	2nd International Conference on Sustainable Energy and Environmental Challenges (SEEC-2018), IISc Bangalore	2017
Mohan C. Manjegowda, Uttariya Pal, Paridhi Singhal Gupta, Ajay Kumar, Dixcy Jaba Sheeba J. M., Gaurav Bhatt, Anil M. Limaye	Transcriptome profile of breast cancer cells treated with GPER1- specific agonist G1	37th Indian Association of cancer research convention	2018
Ritesh S. Malani, Arun Goyal, Vijayanand S. Moholkar	Mechanistic investigations in ultrasound-assisted biodiesel synthesis from mixed-oil feedstock and heterogeneous base catalyst	3rd Asia-Oceania Sonochemical Society Conference (AOSS-3), SRM Research Institute, SRM University, Kattankulathur, Chennai	2017
Vikky Rajulapati, Kedar Sharma, Arun Dillon, Arun Goyal	Structural characterisation of a recombinant pectin methylesterase (CtPME) of family 8 carbohydrate esterase (CE8) from <i>Clostridium thermocellum</i> .	45th National Seminar on Crystallography (NSC 45), IIT (BHU), Varanasi	2017
M. G. Abdul Quadir, Mrinal K. Sarma, Pranab Goswami	Transducing light to current: Cyanobacteria as anodic biocatalyst in biofuel cell setup	58th Annual Conference of Association of Microbiologists of India (AMI-2017) & International Symposium on "Microbes for Sustainable Development: Scope & Applications" (MSDSA-2017), Babasaheb Bhim Rao Ambedkar University, Lucknow	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Krishan Kumar, Arun Goyal	In silico and CD based structural characterization of endo- β -1, 3-glucanase (CtLam81) of family 81-glycoside hydrolase from <i>Clostridium thermocellum</i>	58th International Annual Conference of Association of Microbiologists of India, Babasaheb Bhimrao Ambedkar University, Lucknow	2017
Ashish A. Prabhu, V. Venkata Dasu	Pentose pathway engineering for the recombinant human interferon gamma production in <i>Pichia pastoris</i>	5th Annual conference on Recent Trends in Bio-processing for Healthcare, Energy and Environment (BPI-2017)	2017
Mohd. Faheem Khan, Sanjukta Patra	Protein engineering of <i>Bacillus subtilis</i> lipase to improve alkalistability and thermostability for detergent application	5th Bioprocessing India, IIT Guwahati	2017
Prithwi Chayan Chatterjee, Debasree Kundu, Sanjukta Patra	Multivariate optimization of process parameters for biomass and lipid production by <i>Chlorella pyrenoidosa</i> NCIM 2738	5th Bioprocessing India, IIT Guwahati	2017
Mayur Mahindra Kedare, Mohd Faheem Khan and Sanjukta Patra.	Metagenomic approach for mining industrially relevant thermophilic enzymes.	5th Bioprocessing India. IIT Guwahati	2017
Sharbani Kaushik, Pranab Goswami	Quantum dots and Graphene Nanoplatelets in a Silk film matrix stimulates cyanobacterial photosystems to generate steady current in a PMFC	5th International Conference on Advance Nanomaterials and Nanotechnology, ICANN 2017, held at IIT Guwahati	2017
Neha Arora, Siddhartha Sankar Ghosh	Understanding Therapeutic Potential of PEGylated Silver Nanoclusters Loaded Recombinant PTEN	5th International Conference on Advanced Nanomaterial and Nanotechnology	2017
Smita Das, Naveen Kumar Singh, Vinay B., Pranab Goswami	Carbon dots as peroxidase mimetic catalyst for detection of H ₂ O ₂ and cholesterol	5th International Conference on Advanced Nanomaterials and Nanotechnology (ICANN)-2017, Organised by Centre for Nanotechnology, IIT Guwahati	2017
Neha Arora, Siddhartha Sankar Ghosh	PEGylated Silver Nanoclusters Mediated Cytosolic Delivery of Tumor Suppressor Protein PTEN to Modulate in vitro Cellular Signalling	5th Nano Today Conference, Hawaii	2017
Deepanjalee Dutta, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Bimetallic Au–Ag nanoclusters embedded nanocarrier for bioimaging and suicide gene therapy of HeLa cancer cells	5th International Conference on Advanced Nanomaterial and Nanotechnology, IIT Guwahati	2017
Mohd. Faheem Khan, Sanjukta Patra	Immobilization of engineered thermostable <i>Bacillus subtilis</i> lipase on ZnO nanoparticles for application in detergent formulation	5th International Conference on Advanced Nanomaterial and Nanotechnology (ICANN-2017)	2017
Naveen Kumar Singh, P Thungon, Vinay B, Pranab Goswami	Cdot based aptasensor for malaria diagnosis based on <i>Plasmodium falciparum</i> glutamate dehydrogenase as biomarker	5th International Conference on Advanced Nanomaterials and Nanotechnology, ICANN-2017	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Shabir Najmudin, Shadab Ahmed, Kedar Sharma, Pedro Bule, Victor D. Alves, Carlos M. G. A. Fontes, Arun Goyal	Molecular determinants of substrate specificity revealed by the structure of Clostridium thermocellum family 43_16 arabinofuranosidase	6th National Meeting of Portuguese Synchrotron Radiation Users, May 19, 2017, National Laboratory of Energy and Geology, Alfragide, Portugal	2017
Shabir Najmudin, Filipe Freire, Anil Verma, Pedro Bule, Victor D. Alves, Carlos M. G. A. Fontes, Arun Goyal	Conservation in the mechanism of glucuronoxylan hydrolysis revealed by the structure of glucuronoxylan xylanohydrolase (CtXyn30A) from Clostridium thermocellum	6th National Meeting of Portuguese Synchrotron Radiation Users, National Laboratory of Energy and Geology, Alfragide, Portugal	2017
Karthika B., Aruna Rani, Kedar Sharma, Arun Goyal	Structural and biochemical characterization of recombinant Heparinase II/III of family 12 polysaccharide lyase (PL12) from Pedobacter saltans	7th International Forum on Industrial Bioprocessing (IFIBiop 2017), Wuxi, China	2017
Ajit Kumar, Arun Goyal	Pretreatment optimization of Lantana camara for the lignocellulosic bioethanol production	86th Annual Meeting of Society for Biological Chemists, India, Nov. 16-19, Jawaharlal Nehru University, New Delhi	2017
Vikky Rajulapati, Arun Dhillon, Arun Goyal	Application of recombinant pectinolytic enzymes from Clostridium thermocellum in textile industry	86th Annual Meeting of Society for Biological Chemists, India, Nov. 16-19, Jawaharlal Nehru University, New Delhi	2017
Abhijeet Thakur, Arun Goyal	Cloning, expression, purification and biochemical characterization of first α -L-arabinofuranosidase (PsGH43) from Pedobacter saltans	86th Annual Meeting of Society for Biological Chemists, India, Nov. 16-19, Jawaharlal Nehru University, New Delhi	2017
Kedar Sharma, Vikky Rajulapati, Inês Lobo Antunes, Arun Goyal	SAXS analysis and structure modelling of endo β -1, 4 xylanase (PsGH10A) from Pedobacter saltans	86th Annual Meeting of Society for Biological Chemists, India, Nov. 16-19, Jawaharlal Nehru University, New Delhi	2017
Arun Dhillon, Arun Goyal	Insights into structure and substrate binding mode of rhamnogalacturonan lyase, CtRGL from Clostridium thermocellum	86th Annual Meeting of Society for Biological Chemists, India, Nov. 16-19, Jawaharlal Nehru University, New Delhi	2017
Satakshi Hazra, Sanjukta Patra	Pharmacoproteomics of multitargeting in antimycobacterial drug-target discovery	9th Annual Meeting of Proteomics Society, India (PSI), International Conference on Proteomics in Health and Disease, Institute of Life Sciences (ILS), Bhubaneswar	2017
Sharbani Kasuhik, Pranab Goswami	"CdTe-Silk fibroin-Graphene based hybrid materials support FRET to cyanobacterial photosystems and improve light to current conversion efficiency in a fuel cell setup through direct electron transfer mechanism"	ACS Symposium, IIT Guwahati	2017
S. Kumar	Application of nanotechnology in animal disease diagnosis	Advances in Molecular techniques in Animal Health and Production with particular reference to pigs, ICAR-NRC on Pig, Rani, Guwahati	2017
Bhaskar Kalita, Bhaskar Das, Sanjukta Patra	Macro fungi biodiversity and prospects for its sustainable cultivation in rural areas of North East India	Biodiversity and Biobanking: From Microbes to Man (Biodiverse 2018)	2018

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Shweta Singh, Arun Goyal	Strain improvement of <i>Bacillus amyloliquefaciens</i> SS35 by UV mutagenesis for enhanced carboxymethyl cellulase activity for efficient biomass hydrolysis	Bioenergy-Urja Utsav by Ministry of Petroleum and Natural Gas 2017, Pune	2017
Priyanka Nath, Arun Dhillon, Arun Goyal	Enhancement of activity of recombinant endo-glucanase (CtGH5) from <i>Clostridium thermocellum</i> by site-directed mutagenesis	Bioenergy-Urja Utsav by Ministry of Petroleum and Natural Gas 2017, Pune	2017
Ashutosh Gupta, Vikky Rajulapati, Debasish Das, Arun Goyal	Bioethanol production involving saccharification by cocktail of recombinant clostridial enzymes using sugarcane leaves and kans grass as sustainable feed stocks from north-east India	Bioenergy-Urja Utsav by Ministry of Petroleum and Natural Gas 2017, Pune	2017
Sumitha Banu Jamaldeen, Kedar Sharma, Aruna Rani, Vijayanand S. Moholkar, Arun Goyal	Evaluation of pretreatment methods and recombinant enzyme hydrolysis of sorghum stalk for bioethanol production	Bioenergy-Urja Utsav by Ministry of Petroleum and Natural Gas 2017, Pune	2017
S. Arora, R. Swaminathan	Use of interactive graphical tools to demonstrate changes in time-resolved fluorescence intensity decays	Biophysical Society 62nd Annual Meeting	2018
Mohd. Ziauddin Ansari, Amrendra Kumar, Dileep Ahari, Anurag Priyadarshi, Padmavathi Lolla, Rashna Bhandari, Rajaram Swaminathan	Protein Charge Transfer Absorption Spectra: An Intrinsic Probe to Monitor Structural and Oligomeric Transitions in Proteins	Biophysical Society 62nd Annual Meeting	2018
Mrinal Kumar Sarma, Mohammed Golam Abdul Quadir, Rupam Bhaduri, Sharbani Kaushik, Pranab Goswami	Development of photosynthetic Microbial Fuel Cell for azo dye degradation using cyanobacteria based magnetic nanoparticles functionalized anode	Bioprocess 2017, IIT Guwahati	2017
R. Gadela, A. A. Prabhu, L. Goswami, B. Mandal, Arun S., V. V. Dasu, K. Pakshirajan	Dairy wastewater as a cheap substrate for production of lipids and β -carotene using <i>Rhodotorula mucilaginosa</i>	Bioprocess India 2017	2017
T. Paul, L. Goswami, K. Pakshirajan, G. Pugazhenth	Optimization of micro-nutrients and process parameters for treatment of refinery wastewater by oleaginous <i>Rhodococcus opacus</i> for potential triacyl-glycerol (TAG) production	Bioprocess India 2017	2017
Virendra Kumar Gautam, Rakhi Chaturvedi	In vitro micropropagation of elite <i>Stevia rebaudiana</i> Bertoni plants	Bioprocessing India	2018
Poulomi Saha, Mohd Faheem Khan, Sanjukta Patra	Potential applications of <i>Bacillus subtilis</i> α -amylase immobilized ZnO-NP for desizing of fabrics in textile industry	Bioprocessing India (BPI-2017), IIT Guwahati	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
A. Sinharoy, K. Pakshirajan	Effect of process conditions on biological sulphate reduction using carbon monoxide in a gas lift reactor	Bioprocessing India 2017	2017
M. M. T. Namboodiri, K. Pakshirajan	Solid State fermentaio of rice straw for chitosan production by a novel <i>Penicillium citrinum</i> isolate	Bioprocessing India 2017	2017
Gargi Goswami	Process Engineering for Production of Microalgal Biomass with Higher Productivity	Bioprocessing India 2017	2017
Bidhu Bhusan Makut, Debasish Das, Gargi Goswami	Development of a sustainable process for generation of microbial biomass as a feedstock for biofuel production	Bioprocessing India 2017	2017
Ratan Kumar, Ankan Sinha, Parveez Ahamed, B. C. Dutta, Debasish Das, Gargi Goswami	Optimization of chemical flocculating agents for harvesting of <i>Chlorella</i> sp. FC2 IITG	Bioprocessing India 2017	2017
Ankan Sinha, Ratan Kumar, Sagarika Banerjee, Gargi Goswami, B. C. Dutta, Debasish Das	Screening and isolation of potential CO ₂ tolerant microalgae from industrial waste water via CO ₂ selection pressure	Bioprocessing India 2017	2017
Rithima Warriar, Kiran Subramani, Debasish Das, Gargi Goswami	Construing the bottlenecks involved in Hydrothermal Liquefaction of microalgae	Bioprocessing India 2017	2017
Payel Sarkar, Gargi Goswami, Debasish Das	Development of a metabolically engineered <i>Zymomonas mobilis</i> for efficient utilization of pentose sugar	Bioprocessing India 2017	2017
Mehak Kaushal, Saumya Ahlawat, Gargi Goswami, Debasish Das	<i>Clostridium sporogenes</i> a cell factory for biofuel production: Process strategies and system biology approach	Bioprocessing India 2017	2017
Mayurketan Mukherjee, Anwesha Purkayastha, Saumya Ahlawat, Mehak Kaushal, Gargi Goswami, Debasish Das	Novel medium engineering strategy directed towards enhancing butanol production from <i>Clostridium acetobutylicum</i> ATCC 824	Bioprocessing India 2017	2017
Priyanki Das, Pranab Goswami	Development of membrane less biofuel cell on paper substrate for rapid, reliable and low cost detection of alcohol	Bioprocessing India 2017, IIT Guwahati	2017
Bhaskar Kalita, Bhaskar Das, Sanjukta Patra	Bio-processing of agricultural bio-waste via macro fungi cultivation for promotion of rural livelihood	Bioprocessing India 2017, IIT Guwahati	2017
Surajbhan Sevda	Removal of nitrogenous pollutants and organic matter simultaneously from two different wastewaters using biocathode microbial fuel cell	Bioprocessing India 2017, IIT Guwahati	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
I. Chakrabartty, L. Rangan	Understanding the unique inhibitory potential of (E)- labda – 8 (17), 12 – diene – 15, 16 – dial, a bioactive compound from <i>Alpinia nigra</i> , on the growth kinetics of <i>Candida albicans</i>	Bioprocessing India, IIT Guwahati	2017
Arup Jyoti Borah, Mriganka Saha, Prachi Arya, Shivangi, Arun Goyal, Vijayanand S. Moholkar	Extraction of lignin and its characterization from various invasive weeds for Biorefinary prospect	Bioprocessing India, Recent Trends in Bioprocessing for Healthcare, Energy and Environment, IIT Guwahati	2017
Vikky Rajulapati, Arun Goyal	Cloning, expression, purification and biochemical characterization of a full length pectin methylesterase (CtPMEf) of family 8 carbohydrate esterase (CE8) from <i>Clostridium thermocellum</i>	Bioprocessing India, Recent Trends in Bioprocessing for Healthcare, Energy and Environment, IIT Guwahati	2017
Abhijeet Thakur, Arun Goyal	Sourdough fermentation using a novel α -L-arabinofuranosidase (PsGH43) from <i>Pedobacter saltans</i>	Bioprocessing India, Recent Trends in Bioprocessing for Healthcare, Energy and Environment, IIT Guwahati	2017
Priyanka Nath, Arun Dhillon, Arun Goyal	Protein engineering of endo β -1-4 glucanase (CtGH5) from <i>Clostridium thermocellum</i> by site-directed mutagenesis for development of mutant with enhanced activity	Bioprocessing India, Recent Trends in Bioprocessing for Healthcare, Energy and Environment, IIT Guwahati	2017
Sharbani Kaushik, Priyanki Das, Pranab Goswami	Paper based biofuel cell with photosynthetic microbial anode and air breathing enzymatic cathode	Fourth International Symposium on Advances in Sustainable Polymers (ASP-17), IIT Guwahati	2018
G. S. Rahul, L. Rangan	Study of expression of repetitive elements and their application for gene linked marker development in <i>Pongamia pinnata</i>	Genomics Analysis & Technology Conference (GATC 2018), Gauhati University	2018
Mohan C. Manjegowda, Paridhi Singhal Gupta, Anil M. Limaye	Hypermethylation of the upstream CpG islands shore is a likely mechanism of GPER 1 silencing in breast cancer cells	Gordon Research Conference, cancer, Genetics, epigenetics held at Banga, Italy	2017
Mrinal Kumar Sarma, Mohammed Golam Abdul Quadir, Rupam Bhaduri, Sharbani Kaushik, Pranab Goswami	Magnetic nanoparticles as anode material to facilitate electron transfer in a <i>Synechococcus</i> sp BDU 140432 catalyzed Photosynthetic Microbial Fuel cell	ICANN 2017, IIT Guwahati	2017
Sajitha Sasidharan, Vibin Ramakrishnan	Hybrid Magnetic Organic –Inorganic Nanoadsorbents for Sequestration of Chromium	ICN: 31-2017: International Conference on Nanotechnology: Ideas, Innovations and Initiatives, IIT Roorkee	2017
Swati Sharma, Poulami Datta, Lalit M. Pandey	Bioprocessing India 2017 Beyond Conventions	IIT Guwahati	, 2017
Sunayan Deka, Lalit M. Pandey	Synthesis, characterization and magnetic studies of Gadolinium orthoferrites for hyperthermia applications, International Conference on Advanced Nanomaterials and Nanotechnology	ICANN-2017, IIT Guwahati	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Laipubam Gayatri Sharma, Abhishek Roy, Lalit M. Pandey	Rheological properties of BSA due to formation of nano size agglomerate, International Conference on Advanced Nanomaterials and Nanotechnology	ICANN-2017, IIT Guwahati	2017
Swati Sharma, Lalit M. Pandey	International conference on waste management RECYCLE-2018	IIT Guwahati	2018
Abhishek Roy, Lalit M. Pandey	International Symposium on Advances in Sustainable Polymers, ASP17	IIT Guwahati	2018
Varun Saxena, Lalit M. Pandey	International conference on Nanotechnology: Ideas, innovations and Initiatives 2017	IIT Roorkee	, 2017
T. Paul, K. Pakshirajan, G. Pugazhenth	Optimization of media and process conditions for high biomass production of <i>Rhodococcus opacus</i> from refinery wastewater for potential bio-oil production	Indo- Japan Bilateral Symposium on Future Perspective of Bio-resource Utilization In North-Eastern Region" (IJBS- 2018)	2018
Chakrabartty I, Rangan L	<i>Alpinia nigra</i> : The unexplored ore of Zingiberaceae for future therapeutics	Indo-Japan Bilateral Symposium for Future Perspectives of Bioresource Utilization in North East India (IJBS'17) 1st-4th February 2018, IIT Guwahati,	2018
Shweta Singh, Arun Dhillon, Arun Goyal	Cloning of wild-type endoglucanase (BaGH5) from <i>Bacillus amyloliquefaciens</i> SS35 and its mutant enzyme BaGH5-UV2 from its UV mutant strain and mutant enzyme BaGH5-EMS7 from UV/EMS mutant strain and analysis of induced mutations in the genes	Indo-Japan Bilateral Symposium on Future Perspective of Bioresource Utilization in North-Eastern Region, IIT Guwahati	2018
Ajit Kumar, Shweta Singh, Vikky Rajulapati, Arun Goyal	Optimization of pretreatment of <i>Lantana camara</i> stem as lignocellulosic biomass for bioethanol	Indo-Japan Bilateral Symposium on Future Perspective of Bioresource Utilization in North-Eastern Region, IIT Guwahati	2018
Abhijeet Thakur, Carlos M.G.A. Fontes, Arun Goyal	Application of PsGH43 in combination with other xylanolytic enzymes for conversion of lignocellulosic biomass into reducing sugars	Indo-Japan Bilateral Symposium on Future Perspective of Bioresource Utilization in North-Eastern Region, IIT Guwahati	2018
Rakhi Chaturvedi	In vitro anther culture and haploid plant production in <i>Camellia</i> species to generate homozygous plants with the possibilities of accumulation of bioactive metabolites	Indo-Japan Bilateral Symposium, IJBS	2018
Virendra Kumar Gautam, Rakhi Chaturvedi	Mass clonal propagation of elite <i>Stevia rebaudiana</i> (Bertoni): A commercial and medicinal plant	Indo-Japan Bilateral Symposium, IJBS	2018
Vivek Prakash, Ranjit Ranbhor, Vibin Ramakrishnan	Design of Novel Hetero-Tactic Fluorescent Proteins by Automated Design Approaches	INPEC 2017: The 23rd INPEC Meeting: Protein Structure, Function and Engineering, Bose Institute Kolkata	2017
Mohan C. Manjgowda, Anil M. Limaye	Workshop	International conference and workshop on genomics analysis and technology, Guwahati university	2018

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
M. M. T. Namboodiri, K. Pakshirajan	Chitosan production from <i>Penicillium citrinum</i> biomass for value addition and resource recovery from industrial wastewater	International Conference in Challenges in Environmental Science & Engineering	2017
A. Sinharoy, K. Pakshirajan	Bioconversion of carbon monoxide to hydrogen in a moving bed biofilm reactor	International conference of waste management, Recycle-2018	2018
I. Chakrabartty, A. Khare, A. N. Panda, L. Rangan	Vibrational spectroscopic studies of bioactive labdane diterpene from seeds of <i>Alpinia nigra</i> in conjugation with Cu nanoparticles	International Conference on "Sophisticated Instruments in Modern Research" (ICSIMR), IIT Guwahati	2017
Poulomi Saha, Mohd. Faheem Khan, Sanjukta Patra	Exploring the potential of ZnO-NP immobilized <i>Bacillus subtilis</i> α -amylases for desizing of fabrics in textile industry". International Conference on Advanced Nanomaterials and Nanotechnology (ICANN-2017)	International Conference on Advanced Nanomaterials and Nanotechnology (ICANN-2017)	2017
A. Sinharoy, K. Pakshirajan	Effect of iron nanoparticle on biohydrogen production from carbon monoxide using a gas lift bioreactor with anaerobic granular sludge biomass	International Conference on Advanced Nanomaterials and Nanotechnology, ICANN-2017	2017
L. Goswami, N. Arul Manikandan, J. Christon Ringle Taube, K. Pakshirajan, G. Pugazhenth	Evaluation of cheaply produced biochar from biomass gasification effluent for simultaneous polycyclic aromatic hydrocarbon biodegradation and lipid accumulation by <i>Rhodococcus opacus</i>	International Conference on Challenges in Environmental Science and Engineering	2017
Kedar Sharma, Arun Goyal	Green synthesis of copper nanoparticles using arabinoxyloglucan as stabilising agent for antimicrobial applications	International Conference on Drug Discovery: Biotechnology & Pharma at Cross Roads, Department of Biotechnology, Thapar University, Patiala	2018
L. Goswami, N. Arul Manikandan, K. Pakshirajan, G. Pugazhenth	Biodegradation of low molecular weight polycyclic aromatic hydrocarbons in ternary component system by <i>Rhodococcus opacus</i> : Factorial design analysis and degradation pathway elucidation	International Conference on Emerging Trends in Biotechnology for Waste Conversion	2017
Babina Chakma, Priyamvada Jain, Naveen. K. Singh, P. Goswami	Label-free colorimetric detection of histidine rich proteins using glutathione functionalized silver nanoparticles probe	International conference on sophisticated instruments in Modern Research, IIT Guwahati	2017
Sharbani Kaushik, Pranab Goswami	Optically and electronically active hybrid nanobiocomposite for cyanobacteria based photosynthetic microbial fuel cell	International conference on sophisticated instruments in Modern Research, IIT Guwahati	2017
Mrinal Sarma, Mohammed Golam Abdul Quadir, Rupam Bhaduri, Pranab Goswami	<i>Synechococcus</i> sp. BDU140432 as anodic biocatalyst on polyaniline-polypyrrole copolymer coated electrodes for biofuel cell applications	International conference on sophisticated instruments in Modern Research, IIT Guwahati	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Priyanki Das, Pranab Goswami	Silk sericin for enhancing the conductivity and stability of Graphite paste ink	International conference on sophisticated instruments in Modern Research, IIT Guwahati	2017
T. Paul, K. Pakshirajan and G. Pugazhenth	Biological treatment of Refinery wastewater using oleaginous/hydrocarbonoclastic <i>Rhodococcus opacus</i> for potential Triacylglycerol (TAG) production	International Conference on Waste Management (RECYCLE 2018)	2018
Bhaskar Kalita, Bhaskar Das, Sanjukta Patra	Sustainable agricultural waste utilization promising rural entrepreneurship in North East India	International conference on Waste Management, 2018 (Recycle 2018)	2018
Dixcy Jaba Sheeba J. M., Mohan C. Manjegowda, Ajay Kumar, Anil Mukund Limaye	Role of cystatin A in breast cancer and its functional link with ER α	International Congress of Cell Biology, Hyderabad	2018
Mohan C. Manjegowda, Paridhi Singhal Gupta, Dixcy Jaba Sheeba J. M., Ajay Kumar, Uttariya Pal, Anil M. Limaye	The synthetic ligand G1: an agonist for G-protein coupled estrogen receptor-1 or an inhibitor of mitosis	International Congress of Cell Biology, Hyderabad	2018
Vartika Srivastava, Rakhi Chaturvedi	Optimized micropropagation protocol to establish high-yielding true-to-type plantations of elite genotypes of <i>Tinospora cordifolia</i> for consistent production of therapeutic compounds	International Plant Propagators Society (IPPS), Wilsonville, Oregon, USA	2017
Ajay kumar, Mohan C. Manjegowda, Dixcy Jaba Sheeba J. M., Sachin Kumar, Anil M. Limaye	17 β -estradiol negatively regulates PCDH8 expression in estrogen receptor positive breast cancer cells through action mediated by estrogen receptor α	Jawaharlal Nehru University, New Delhi	2017
S. Kumar	Newcastle disease virus as a tool for animal vaccine and diagnostics	Lead paper talk on International Workshop on "One Health and Sustainable Economic Development 13th to 19th November, 2017 School of Animal Biotechnology and School of Public Health and Zoonoses Guru Angad Dev Veterinary and Animal Sciences University Ludhiana, Punjab- 141004	2017
S. Kumar	Newcastle disease virus as a tool for poultry vaccine and Diagnostics	Lead speaker XXXIV Annual Conference of Indian Poultry Science Association (IPSACON 2017), NIMHANS Convention Centre, Bengaluru	2017
Deepanjalee Dutta, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Bimetallic Au–Ag Nanoclusters embedded Cationic BSA nanocarrier for Bioimaging and Suicide gene therapy of HeLa cancer cells	NanoBiotech'17 Trivandrum	2017
A. Kumar, R. Tamuli	Role of CNA-1 in stress responses and circadian rhythm in <i>Neurospora crassa</i>	National Conference on Fungal Biology: Recent Trends and Future Prospects and 44th Annual meeting of the Mycological Society of India (MSI), University of Jammu	2017

Conference Papers

Biosciences and Bioengineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
A. Roy, R. Tamuli	Role of calcineurin B (CNB-1) RIP mutants in stress tolerance, circadian rhythm and probable interaction with calcium proton exchanger (CAX) regulating cell functions in <i>Neurospora crassa</i>	National Conference on Fungal Biology: Recent Trends and Future Prospects and 44th Annual meeting of the Mycological Society of India (MSI), University of Jammu	2017
K. C. N. Marak, R. Tamuli	Calcium/calmodulin dependent kinases play a role in the regulation of normal period length in <i>Neurospora crassa</i> circadian clock	National Conference on Fungal Biology: Recent Trends and Future Prospects and 44th Annual meeting of the Mycological Society of India (MSI), University of Jammu	2017
D. Baruah, R. Tamuli	Understanding the role of <i>plc-1</i> , <i>splA2</i> and <i>cpe-1</i> genes in regulation of <i>Neurospora crassa</i> circadian clock	National Conference on Fungal Biology: Recent Trends and Future Prospects and 44th Annual meeting of the Mycological Society of India (MSI), University of Jammu	2017
P. Das, R. Tamuli	The <i>trm-9</i> , a Ca^{2+} ATPase is required for vegetative growth and thermotolerance in <i>Neurospora crassa</i>	National Conference on Fungal Biology: Recent Trends and Future Prospects and 44th Annual meeting of the Mycological Society of India (MSI), University of Jammu	2017
D. Gohain, R. Tamuli	The transcription factor CRZ-1 upregulates the expression of NCS-1 that closes MID-1 channel for calcium stress tolerance in <i>Neurospora crassa</i>	National Conference on Fungal Biology: Recent Trends and Future Prospects and 44th Annual meeting of the Mycological Society of India (MSI), University of Jammu	2017
Prerana Gogoi, Shankar Prasad Kanaujia	Architecture of ribose-1,5-bisphosphate isomerase, an enzyme unique to archaea	National Seminar on Crystallography (NSC-45), IIT (BHU) Varanasi	2017
Angshu Dutta, Shankar Prasad Kanaujia	Deciphering the structural aspects of an antimicrobial peptide importer in gram negative bacteria for developing drugs	National Seminar on Crystallography (NSC-45). IIT (BHU) Varanasi	2017
M. Das, S. Kumar	Independent evolution of genotype xiii Newcastle disease viruses from India: a zoonotic threat	National Seminar on Opportunities and challenges of translational research in the frontier areas of Animal Biotechnology and V Annual Convention of SVSBT", OUAT, Odisha	2017
L. Goswami, K. Pakshirajan, G. Pugazhenth	Optimization of fatty acid methyl esters production from <i>Rhodococcus opacus</i> utilizing anthracene as the sole carbon source in a batch stirred tank reactor	National Seminar on Petroleum Biotechnology and Bioenergy	2017
Peeyushi Verma, Rakhi Chaturvedi	Optimization of culture conditions in bioreactor for scale up of cell biomass in <i>Lantana Camara</i> L.	National Symposium on Plant Biotechnology	2018
A. Balakumaran, Rakhi Chaturvedi	Totipotency of endosperms of <i>Musa Bulbisiana</i> under in vitro conditions	National Symposium on Plant Biotechnology	2018
H. Boro, A. Dey, S. Kumar, Y. Kobayashi, L. Sahoo	Evaluation of cowpea genotypes for adaptation to aluminum toxicity in acid soil	National symposium on pulses for nutritional security and Agricultural sustainability, ICAR-IIPR, Kanpur	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
J. Muthuvel, A. Kalita, S. Kumari, S. Kumar, V. Kalia, M. V. Rajam, L. Sahoo	Bt and RNAi mediated protection in cowpea to legume pod borer (<i>Maruca vitrata</i>)	National symposium on pulses for nutritional security and Agricultural sustainability, ICAR-IIPR, Kanpur	2017
R. Srivastava, A. Kalita, S. Kumar, L. Sahoo	Manipulation of vacuolar sequestration of Na and salt responsive NAC transcription factor for salt-tolerance in mungbean	National symposium on pulses for nutritional security and Agricultural sustainability, ICAR-IIPR, Kanpur	2017
L. Goswami, J. Christon Ringle Taube, K. Pakshirajan, G. Pugazhenth	Characterization and potential application of effluent derived biochar for simultaneous enhancement in fluoranthene degradation and lipid accumulation by <i>Rhodococcus opacu</i>	National symposium on Recent Advancements in Environmental Research	2017
G. Roy, L. Goswami, K. Pakshirajan, G. Pugazhenth	Dairy wastewater treatment by oleaginous <i>Rhodococcus opacus</i> using a batch operated stirred tank reactor and biomass separation using atubular ceramic membrane for potential biodiesel production	National symposium on Recent Advancements in Environmental Research	2017
A. Singh, L. Rangan, R. Swaminathan	UV-Visible absorbance and fluorescence of KARANJIN in different solvents and solvent mixture	National workshop on " Fluorescence and Raman Spectroscopy (FCS 2017)", IIT Guwahati	2017
I. Chakrabarty, A. N. Panda, A. Khare, L. Rangan	FT-IR, FT-Raman, NMR and SERS studies of labdane diterpene from <i>Alpinia nigra</i>	National Workshop on Fluorescence and Raman Spectroscopy (FCS), IIT Guwahati	2017
Sunil kumar Sailapu ,Deepanjalee Dutta, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Smartphone based portable device for photodynamic therapy and colorimetric assays	North East Biostart, Guwahati Biotech Park	2018
T. Paul, K. Pakshirajan, G. Pugazhenth.	Treatment of Refinery wastewater using oleaginous <i>Rhodococcus opacus</i> for potential bio-oil production	One day symposium on Recent Advancements in Environmental Research (RAER-2017)	2017
M. Kumar	Immunogenic Lipoprotein LP46 of <i>Leptospira interrogans</i> interacts with host extracellular matrix components	Opportunities and Challenges of Translational Research in the Frontier Areas of Animal Biotechnology, OUAT National seminar, Bhubaneswar	2017
Surjith Ramasamy, K. Pakshirajan	Lutein production from halophilic microalgae utilizing waste anaerobic digestate as a cheap substrate	RAER 2017	2017
Surajbhan Sevda	Synergy of bioelectrochemical system and anaerobic digestion for enhanced energy recovery and wastewater treatment	Red-Start challenge, Research Conclave, IIT Guwahati	2018
Anitha T Simon Deepanjalee Dutta, Sunil kumar Sailapu, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Smartphone based portable device for photodynamic therapy and colorimetric assays	Resarch Conclave, IIT Guwahati	2018

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Biosciences and Bioengineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Bhaskar Kalita, Sanjukta Patra	Effective utilization of agricultural waste towards promotion of rural entrepreneurs: a critical study	Research Conclave 2018	2018
Swati Rajput, Dixy Jaba Sheeba J. M., Anil Mukund Limaye	Epigenetic Regulation of ADAMTS19 in breast cancer	Research Conclave 2018, IIT Guwahati	2018
Angshu Dutta, Shankar Prasad Kanaujia	Functional annotation, classification and assignment of translocation pathway of phospholipases C	Research Conclave 2018, IIT Guwahati	2018
Prerana Gogoi, Shankar Prasad Kanaujia	Structural and functional characterization of a presumed homologue of the regulatory subunits of eIF2B	Research Conclave 2018, IIT Guwahati	2018
Poulomi Saha, Mohd. Faheem Khan, Sanjukta Patra	Potential application of α -amylase for desizing of fabrics in textile industry	Research Conclave, IIT Guwahati	2018
Prithwi Chayan Chatterjee, Debasree Kundu, Sanjukta Patra	Investigation of combined effect of various process parameters on biomass and lipid productivity of <i>Chlorella pyrenoidosa</i> NCIM 2738 using response surface methodology	Research Conclave, IIT Guwahati	2018
Debasree Kundu, Mohd. Faheem Khan, Sanjukta Patra	Econanotoxicity and environmental impact of engineered nanomaterials: navigating possible strategies for nano-bio-eco interactions	Research Conclave, IIT Guwahati	2018
Mohd. Faheem Khan, Sanjukta Patra	A protein engineering platform to improve stability of proteins for industrial applications	Research Conclave, IIT Guwahati	2018
T. Anand, S. D. Ngilmei, R. Tamuli	The NcZrg-17 gene of <i>Neurospora crassa</i> encodes a cation diffusion facilitator transporter required for vegetative development, tolerance to endoplasmic reticulum stress and cellulose degradation under low zinc conditions	Research Conclave, IIT Guwahati	2018
P. Das, R. Tamuli	Studies on the cellular roles of Ca ²⁺ ATPases TRM-9 and NCA-2 in <i>Neurospora crassa</i>	Research Conclave, IIT Guwahati	2018
D. Baruah, R. Tamuli	Understanding the role of PLC- δ , sPLA2 and CPE-1 in regulating various cellular processes in <i>Neurospora crassa</i>	Research Conclave, IIT Guwahati	2018
K. C. N. Marak, R. Tamuli	Calmodulin and calcium/calmodulin dependent kinases are important for normal growth and development in <i>Neurospora crassa</i>	Research Conclave, IIT Guwahati	2018
Mayur Mahindra Kedare, Mohd Faheem Khan, and Sanjukta Patra	Metagenomic approach for mining Industrially Relevant Thermophilic Enzymes	Research Conclave, IIT Guwahati, India	2018
S. Kumar, J. Muthuvel, A. Kalita, V. Kalia, L. Sahoo	Transgenic cowpea plants expressing Cry1Ab toxin confers resistance to legume pod borer (<i>Maruca vitrata</i>)	South Asia Biosafety Conference	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
A. Dutta, T. Dubey, K. K. Singh, A. Anand	SpliceVec: distributed feature representations for splice junction prediction	The sixteenth Asia Pacific Journal Conference 2018	2018
Chakrabartty I, Vijayasekhar A, Rangan L	Viability assessment of bacteria under the treatment of (E)-labda-8(17), 12-diene-15, 16-dial, a bioactive compound from the seeds of <i>Alpinia nigra</i>	Translational Research on Natural Products for Therapeutic Uses (TRNPTU), IASST Guwahati	2017
S. Sadokpam, I. Chakrabartty, L. Rangan	Formulation strategies and anti-candidal assessment of a labdane-type diterpene from <i>Alpinia nigra</i>	Translational Research on Natural Products for Therapeutic Uses (TRNPTU), IASST Guwahati	2017
M. K. Gupta, L. Rangan	3,5-dihydroxy-4'-7-dimethoxyflavone: Isolation and characterization from <i>Alpinia nigra</i>	Trends in Biochemical and Biomedical Research (TBBR), Banaras Hindu University	2018
V. K. Mishra, Ruchira Bajpai, Rakhi Chaturvedi	In Vitro anther cultures of <i>Camellia assamica</i> (Masters) for haploid plant production and possibilities of accumulation of Catechins, Caffeine and Theophylline in them	World Congress on In vitro Biology, Raleigh, North Carolina, USA	2017
Sharbani Kaushik, Pranab Goswami	"FRET-guided surging of cyanobacterial photosystems improves and stabilizes current in photosynthetic microbial fuel cell"	Young scientists Colloquium 2017 (YSC 2017), Materials Research Society of India (MRSI), Kolkata Chapter, IEST, Shibpur	2017

Conference Papers

Chemical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Rima Biswas, Pallab Ghosh, Tamal Banerjee, S. Musharaf Ali	Metal ion partitioning with calix[4]arene-benzo-crown-6 in ionic liquid-water biphasic systems	10th Liquid Matter Conference Ljubljana, Slovenia	2017
Tamal Banerjee, Debashis Kundu, G. Pugazenthi, Basudhrity Banerjee	Selective Thermal Dehydrogenation of Ethylene Diamine Bisborane Facilitated by Phosphonium Based Ionic Liquids	10th Liquid Matter Conference Ljubljana, Slovenia	2017
Ch.V. Rao, A. K. Golder	Bimetal doping on TiO ₂ for photocatalytic water treatment: A green route	10th World Congress on Water Resources and Environment, National Technical University of Athens, Greece	2017
Prince Kumar, Sudip Das, R. Prasanna Venkatesh	Effect of cations in carbon steel corrosion in chloride media	231st ECS meeting, New Orleans, USA	2017
Saptak Rarotra, Tapas Kumar Mandal, Dipankar Bandyopadhyay	Electrolytic Production of Hydrogen Energy by Water-Splitting in Polymer based Micro reactors	5th Symposium on Advanced Biological Inorganic Chemistry SABIC-2017, TIFR and IACS, Kolkata	2017
Sunny Kumar, Bhaskarjyoti Sharma, A. Dalal, D. Basu, A. K. Dasmashapatra, Dipankar Bandyopadhyay	Field Induced Anomalous Spreading, Oscillation, Ejection, Spinning, and Breaking of Oil Droplets on Strongly slipping Water Surface	Chemical Physics of Electroactive Materials, Faraday Discussions, Cambridge University, United Kingdom	2017

Conference Papers

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Mahesh Nagargoje	Numerical modelling of blood flow in bifurcation	Compflu 17	2017
Ritesh S. Malani, Sohan Singh, Arun Goyal, Vijayanand S. Moholkar	Chapter 5 Ultrasound-assisted biodiesel production using KI-impregnated zinc oxide (ZnO) as heterogeneous catalyst: a mechanistic approach	Conference Proceedings of the Second International Conference on Recent Advances in Bioenergy Research	2018
Prince Kumar, Abhilash Kumar, R. Prasanna Venkatesh	Investigation of carbon steel corrosion in ammonium chloride solutions under stirring conditions	CORCORN 2017, Mumbai	2017
Anusuya Talukdar, R. Prasanna Venkatesh	Effect of H ₂ S and acetic acid on CO ₂ corrosion of carbon steel	CORCORN 2017, Mumbai	2017
Remya Kommadath, Prakash Kotecha	Teaching Learning Based Optimization with focused learning and its performance on CEC2017 functions	IEEE Congress on Evolutionary Computation (CEC)	2017
Debasis Maharana, Remya Kommadath, Prakash Kotecha	Dynamic Yin-Yang Pair Optimization and its performance on single objective real parameter problems of CEC 2017	IEEE Congress on Evolutionary Computation (CEC)	2017
Amit Kumar Singh, K. K. Dey, Arun Chattopadhyay, Tapas Kumar Mandal, Dipankar Bandyopadhyay	Intelligent pH responsive chemo-magnetotactic microbots	International Conference on Advances in Biological Systems and Materials Science in NanoWorld (ABSMSNW-2017), IIT BHU, Varanasi	2017
Abir Ghosh, Dipankar Bandyopadhyay, Ashutosh Sharma	Contact Instability Induced High Aspect Ratio Ordered Micro/Nano-Structures in Adhesion and Debonding of Thin Viscoelastic Films in the Presence of Homogeneous and Heterogeneous Contactor	International Conference on Emerging Trends in Nanoscience and Nanotechnology (ICETINN – 2017), Sikkim Manipal Institute of Technology, Sikkim	-
Shirsendu Mitra, Abir Ghosh, Dipankar Bandyopadhyay	A Computational Study on Travelling Wave Periodic Column/ Hole Formation Employing Electric Field Lithography	International Conference on Emerging Trends in Nanoscience and Nanotechnology (ICETINN– 2017)	-
Surjendu Maity, Sunny Kumar, Ashok Kumar Dasmahapatra, Dipankar Bandyopadhyay	Wettability of water droplet on PDMS and Graphene micro/ nano patterned surface	International Conference on Emerging Trends in Nanoscience and Nanotechnology 2017, Sikkim Manipal Institute of Technology, Sikkim	-
Debasis Maharana, Prakash Kotecha	Optimization of Job shop scheduling problem with Grey Wolf Optimizer and JAYA Algorithm	International Conference on Smart Innovations in Communications and Computational Sciences (ICSICCS-2017)	2017
Varun Punnathanam, Prakash Kotecha	Front-based Yin-Yang-Pair Optimization and its performance on CEC2009 benchmark problems	International Conference on Smart Innovations in Communications and Computational Sciences (ICSICCS-2017)	2017
Debasis Maharana, Prakash Kotecha	Multi-objective League Championship Algorithms and its Applications to Optimal Control Problems	International Conference on Smart Innovations in Communications and Computational Sciences (ICSICCS-2017)	2017
Varun Punnathanam, Prakash Kotecha	Optimization of Multi-objective Dynamic Optimization Problems with Front-based Yin-Yang-Pair Optimization	International Conference on Smart Innovations in Communications and Computational Sciences (ICSICCS-2017)	2017
Remya Kommadath, Prakash Kotecha	Optimization of Stirling Engine Systems using Single Phase Multi-Group Teaching Learning Based Optimization	International Conference on Smart Innovations in Communications and Computational Sciences (ICSICCS-2017)	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Sandeep Singh Chauhan, Prakash Kotecha	Performance Evaluation of Grey Wolf Optimizer and Symbiotic Organisms Search for Multi-Level Production Planning	International Conference on Smart Innovations in Communications and Computational Sciences (ICSICCS-2017)	2017
Remya Kommadath, Prakash Kotecha	Evaluation of Teaching Learning Based Optimization with Focused Learning on Expensive Optimization Problems (CEC2017)	International Conference on Smart Innovations in Communications and Computational Sciences (ICSICCS-2017)	2017
K. Dharmalingam, R. Anandalakshmi	Solid dispersion of quercetin in HPMC matrix by microwave irradiation	International Conference on Sophisticated Instruments in Modern Research 2017	2017
Mohit Murarka, Biraj KumarKakati, Anandalakshmi R.	Energy Analysis of Multiphase Flow in Flat Plate Solar Collectors	International Conference on Sustainable Energy and Environmental Challenges	2018
Devanshu Nema, Anandalakshmi R.	Numerical Investigation on Thermal Performance of Trapezoidal Finned Flat Plate Solar Air Collectors	International Conference on Sustainable Energy and Environmental Challenges	2018
A. S. Giri, A. K. Golder.	Mechanism and identification of reaction byproducts for the degradation of Chloramphenicol drug in heterogeneous photocatalytic process	International Symposium on Sustainable Urban Environment-2017	2017
Nagargoje Mahesh	CFD simulations of pulsatile blood flow in bifurcating channel	MicroFlu 18	2018
Md. Rashid Faridi, Sunny Kumar, A. K. Dasmahapatra, Dipankar Bandyopadhyay	Motions of soft liquibots under magnetic field	Microfluidics, Liquid Handling and Lab on a Chip-2017	2017
Bhaskarjyoti Sharma, Sunny Kumar, A. Dalal, D. Basu, A. K. Dasmahapatra, Dipankar Bandyopadhyay	Directional motion of Nanoparticle Laden Droplets on Micro-Fibre Highway	Nano India 2017, IIT Delhi	2017
Rajashree Borgohain, Purnima Madu, Bishnupada Mandal	Synthesis and characterization of cellulose acetate/ diethylamine functionalized carbon nanotube mixed matrix membrane for CO ₂ separation from flue gas	National conference on waste to energy, carbon capture and storage (NCWECCS)	2017
Bhaskarjyoti Sharma, Sunny Kumar, A. Dalal, D. Basu, A. K. Dasmahapatra, Dipankar Bandyopadhyay	On demand manipulation of nanoparticle laden nanoparticle microdroplets	Reflux 2017, IIT Guwahati	2017
Mitradip Bhattacharjee, Harshal Nemade, Dipankar Bandyopadhyay	Nanoparticle based lung monitoring device	Reflux 2017, IIT Guwahati	2017

Conference Papers**Chemical Engineering**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Bhaskarjyoti Sharma, Sunny Kumar, A. Dalal, D. Basu, A. K. Dasmahapatra, Dipankar Bandyopadhyay	Morphology of Electrified droplets on dielectric coated electrode	Research Conclave 2017, IIT Guwahati	2017
Sunny Kumar, A. K. Dasmahapatra, D. Bandyopadhyay	Dynamics of liquibots under magnetic field	Research Conclave 2017, IIT Guwahati	2017
Mitradip Bhattacharjee, Viswanath Pasumarthi, Joydip Chaudhuri, Amit Kumar Singh, Harshal Nemade, Dipankar Bandyopadhyay	Microfluidic vapour sensor and energy harvester	Research Conclave- 2017, IIT Guwahati	2017

Conference Papers**Chemistry**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
R. Bhaskaran, M. Sarma	Low Energy Electron Induced Damage to Selected DNA Fragments	4th International Conference on Physical and Theoretical Chemistry 2017, Dublin	2017
M. Sarma	Local Complex Potential Based Time Dependent Wave Packet Approach in Electron Molecule Scattering	IACS-Conference on Electronic Structure, Spectroscopy, and Dynamics (IACS – CESSD) 2018, Indian Association for the Cultivation of Science, Kolkata	2018
M. Sarma	Resonances in Electron Molecule Scattering : Application to Some Bio Molecules	National Conference on Applied Sciences, Sustainable and Evolving Technologies (ASSET) and 63rd Annual Technical Session of Assam Science Society, 2018, CIT Kokrajhar	2018
R. Bhaskaran, M. Sarma	Low Energy Resonant Electron Scattering Off DNA Fragments	Spectroscopy and Dynamics of Molecules and Cluster (SDMC) 2018, Dooars, Darjeeling	2018

Conference Papers**Civil Engineering**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Choudhury, T., and Kaushik, H.B.	Numerical and Experimental Study on Unreinforced Masonry Buildings with Various Opening Configurations Strengthened with Steel Bands	10th Australasian Masonry Conference, Sydney, Australia	2018

Conference Papers

Civil Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
A. K. Sarma, B. Sarma, J. Hazarika, S. Patowary	Ecological Management Practices: A Participatory Approach for Sustainable Urban Development	13th International Conference on Technology, Knowledge and Society, University of Toronto, Canada	2017
S. Naskar, S. Das, H. B. Kaushik	Modification and modelling of experiments with bi-directional loading on reinforced	13th International Conference on Vibration Problems	2017
J. Taipodia, A. Dey	Impact of frequency filtering and temporal muting on the resolution of dispersion image	13th International Conference on Vibration Problems (13ICOVP), Guwahati	2017
Kumar, S. S., Krishna, A.M. and Dey, A.	Effect of strong motion parameters on the response of soil using cyclic triaxial tests	13th International Conference on Vibration Problems (13ICOVP), Guwahati, India	2017
N. Sharma, K. Dasgupta, A. Dey	Behaviour of RC Building Frame Subjected to Soil-Structure Interaction Effects	13th International Conference on Vibration Problems (ICOVP 2017)	2017
A. Sinha, N. Sharma, A. Dey, K. Dasgupta	The Effect of Simplified Soil-Structure Interaction on the Cyclic Behaviour of an RC Wall-Frame Building with Pile Foundation	13th International Conference on Vibration Problems (ICOVP 2017)	2017
S. Kaushik, K. Dasgupta	Time History Analysis of Shear Wall-Floor Slab Assemblage	13th International Conference on Vibration Problems (ICOVP 2017)	2017
S. Dhar, K. Dasgupta, A. G. Ozcebe, R. Paolucci, L. Petrini	Comparison Between Two Modeling Aspects to Investigate Seismic Soil-Structure Interaction for RC Integral Abutment Bridge	13th International Conference on Vibration Problems (ICOVP 2017)	2017
B. F. Ahmed, K. Dasgupta	Seismic Damage Assessment of Integral Abutment Bridge	13th International Conference on Vibration Problems (ICOVP 2017)	2017
P. Talukdar, R. Bora, A. Dey	Finite element based identification of the triggering mechanism of a failed hill slope"	15th International Conference of the International Association of the Computer Methods and Geomechanics, Wuhan, China	2017
Basu, D. and Dey, A.	1D nonlinear ground response analysis of soils in IIT Guwahati and liquefaction potential identification	16th World Conference on Earthquake Engineering (16WCEE), Santiago, Chile	2017
Abhishek Kumar, N. H. Harinarayan, Olympia Baro	Effects of earthquake motion and overburden thickness on strain behavior of clay and sandy soils	16th World Conference on Earthquake Engineering, Santiago, Chile	2017
S. A. Kartha, B. Pradhan, P. J. Barman	Statistical Interpretation of Leaching of Zinc from Boragaon (INDIA) Landfill Refuse	16th International Waste Management and Landfill Symposium, Italy	2017
A. Kumar, R. Choudhary, R. Narzari, R. Kataki	Rheological Evaluation of Asphalt Binders Containing Pyrolytic Biochar	17th Annual International Conference on Pavement Engineering, Asphalt Technology and Infrastructure, Liverpool John Moores University, Liverpool	2018
S. Pathak, R. Choudhary, A. Kumar	Use of Basic Oxygen Furnace Steel Slag in Open Graded Friction Courses	17th Annual International Conference on Pavement Engineering, Asphalt Technology and Infrastructure, Liverpool John Moores University, Liverpool, UK	2018

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
T. K. Deb, B. Singh	Numerical Modelling of Bucket Foundations in Dense Sand Supporting Offshore Wind Turbines	19th International Conference on Soil Mechanics and Geotechnical Engineering, Seoul	2017
D. Basu, B. Madhulatha, C. Bhowmik, R. Saha, A. Dey	"Nonlinear GRA for assessing the liquefaction susceptibility of Agartala city"	19th International Conference on Soil Mechanics and Geotechnical Engineering, TC-307, Seoul	2017
N. Kotoky, A. Dutta, S. Kanti Deb	Enhancement of seismic performance of structures using HyFRC	33rd National Convention of Civil Engineers on 'Recent Advances in Structural Engineering', Institute of Engineers, Ahmedabad	2017
Anurag Sharma, Bimlesh Kumar	Turbulent Characteristics of Flow over Non-Uniform Sand Bed Channel	37th IAHR World Congress, Kuala-Lumpur	2017
Anurag Sharma, Bimlesh Kumar	Effect of Seepage on Probability Distribution Function of Turbulent Flow	44th National Conference on Fluid Mechanics and Fluid Power (FMFP-2017), Amrita University, Kollam	2017
Bandita Barman, Bimlesh Kumar, A. K. Sarma	Statistical Analysis of Bed Feature of an Alluvial Channel at Upstream and Downstream of Mining Pit	44th National Conference on Fluid Mechanics and Fluid Power (FMFP-2017), Amrita University, Kollam	2017
Arunabha Banerjee, Akhilesh Kumar Maurya	Comparative study of pedestrians- movement on different types of pedestrian sidewalks in Sikkim, Gangtok	4th Conference of Transportation Research Group of India (CTRG), IIT Bombay	2017
Gourab Sil, Avijit Maji, Suresh Nama, Akhilesh Maurya	Modelling of Operating Speeds for Multilane Divided Highways	4th Conference of Transportation Research Group of India (CTRG), IIT Bombay	2017
Anuj Budhkar, Akhilesh Kumar Maurya	Analysis of lateral interaction time in mixed traffic conditions	4th Conference of Transportation Research Group of India (CTRG), IIT Bombay	2017
Ritvik Chauhan, Prasanta Sahu, Duregsh Vikram, Akhilesh Kumar Maurya	Effect of Side Friction on Urban Road Capacity	4th Conference of Transportation Research Group of India (CTRG), IIT Bombay	2017
Dibyoyoti Saha, Akhilesh Kumar Maurya	Identification of High Crash Zones on Four-Lane Highway in Hilly Terrain	4th Conference of Transportation Research Group of India (CTRG), IIT Bombay	2017
R. Choudhary, V. Yadav, A. Kumar, A. Mathur	A Study on Permeability Characteristics of Asphalt Pavements	4th International Conference of the Transportation Research Group of India (CTRG-2017), IIT Bombay	2017
M. L. Pattanaik, R. Choudhary, B. Kumar	Properties of Open Graded Friction Course Mixes with EAF Steel Slag	4th International Conference of the Transportation Research Group of India (CTRG-2017), IIT Bombay	2017
Rozampaia, Jyotish Kumar Das, Bulu Pradhan	A Study on Sodium Nitrite, Zinc Oxide and Di-Sodium Hydrogen Phosphate as Corrosion Inhibitors in Reinforced Concrete	71st RILEM Annual Week & International Conference on Advances in Construction Materials and Systems (ICACMS 2017), Chennai	2017
B. Sharma, D. S. Rishi, B. K. Mudai, Rajib Kumar Bhattacharjya	Laboratory scale investigation of contaminant transport in unconfined coastal aquifers	7th International Ground Water Conference Ground Water Vision 2030, New Delhi	2017

Conference Papers

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Gourab Sil, Suresh Nama, Avijit Maji, Akhilesh Maurya	The 85th Percentile Speed Prediction Model for Four-Lane Divided Highways in Ideal Free Flow Condition	97th Annual Meeting at the Walter E. Washington Convention Center, Washington, D. C.	2018
A. Gupta, R. Choudhary, A. Kumar, K. Kalita	Permeability Characteristics of Bituminous Concrete as Function of Aggregate Gradation	ASCE India Conference 2017, IIT Delhi	2017
Anuj Budhkar, Akhilesh Kumar Maurya	Overtaking decision modeling in heterogeneous and weak lane discipline traffic	Conference of the Eastern Asia Society for Transportation Studies, Vietnam	2017
J. Dutta, A. K. Mishra, P. Das	Effect of salts on consolidation characteristics of bentonite	Geoenvironmental Engineering-2017, Seoul	2017
N. H. Harinarayan, Abhishek Kumar	Site Classification of the Strong Motion Stations of Uttarakhand, India, Based on the Model Horizontal to Vertical Spectral Ratio	Geotechnical Frontiers, GSP 281, Orlando, Florida	2017
M. Pushpan, A. Jana, A. Murali Krishna, A. Dey, S. Sreedeeep	"Stability assessment of a rock slope using finite element modeling"	Geotechniques for Infrastructure Projects (GIP), Thiruvananthapuram	2017
K. Sai Kiran, A. Bhuvaneswari Devi, Archana M. Nair	Impact of land use changes in a micro watershed using remote sensing and gis: a case study of iit guwahati watershed, guwahati, assam	IGWC 2017, New Delhi	2017
Y. Gapak, T. V. Bharat	Hysteresis in soil water characteristics of a highly plastic clay	Indian Geotechnical Conference	2017
S. S. Kumar, A. M. Krishna, A. Dey	Evaluation of hysteretic damping of sand at large shear strains using cyclic triaxial strains" Geotechnics for Natural and Engineered Sustainable Technologies	Indian Geotechnical Conference (GeoNEst: IGC-2017), Guwahati	2017
C. P. Sarma, A. M. Krishna, A. Dey	"Landslide evolution through catastrophe theory based on planar-slip slope model" Geotechnics for Natural and Engineered Sustainable Technologies	Indian Geotechnical Conference (GeoNEst: IGC-2017), Guwahati	2017
K. N. Reddy, M. J. Bora, A. Jana, S. Sreedeeep, A. M. Krishna	"Stability Assessment and Designing of Jointed Rock Slope Using Finite Element Method" Geotechnics for Natural and Engineered Sustainable Technologies	Indian Geotechnical Conference (GeoNEst: IGC-2017), Guwahati	2017
B. F. Ahmed, K. Dasgupta, A. Dey	Behaviour of Laterally Loaded Bridge Piles In Sand	Indian Geotechnical Conference 2017 GeoNEst	2017
N. Sharma, K. Dasgupta, A. Dey	Nonlinear Static Behaviour of RC-Building Frame with Soil Structure Interaction Effects	Indian Geotechnical Conference 2017 GeoNEst	2017
S. Mali, B. Singh	Behavior of Large Piled-Raft Foundation on Clay Soil	Indian Geotechnical Conference, IGC - 2017, IIT Guwahati	2017
S. K. Patel, B. Singh	Strength and Deformation Behavior of Fiber-Reinforced Cohesive Soil Under Varying Moisture and Compaction States	Indian Geotechnical Conference, IGC - 2017, IIT Guwahati	2017
T. K. Deb, B. Singh	Response and Capacity of Monopod Caisson Foundation Under Eccentric Lateral Loads	Indian Geotechnical Conference, IGC - 2017, IIT Guwahati	2017

Conference Papers

Civil Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
D. Baglari, J. Taipodia, A. Dey	Critical analysis of traffic origin wavefields for optimum utilization in passive roadside MASW survey	International Conference on Advances in Concrete, Structural & Geotechnical Engineering (ACSGE - 2018), BITS Pilani	2018
J. Taipodia, A. Dey	Impact of data preprocessing parameters on the accuracy of the inverted Vs profile in MASW"	International Conference on Advances in Concrete, Structural & Geotechnical Engineering (ACSGE – 2018), BITS Pilani	2018
B. Kalita, N. Gujre, A. S. Kalamdhad	Insight of SBM and technology Intervention for waste management in Rural Areas in Assam	International Conference on Integrated Solid Waste Management Practices in Developing Countries (CSIR-NEERI-2017), National Environmental Engineering Research Institute (NEERI), Nagpur	2017
G. Goel, A. S. Kalamdhad	Manufacture of fired bricks using PMS and soil	International Conference on Integrated Solid Waste Management Practices in Developing Countries (CSIR-NEERI-2017), National Environmental Engineering Research Institute (NEERI), Nagpur	2017
V. B. Barua, A. S. Kalamdhad	Optimization of the most thermal pretreatment technique for enhance biogas production from water hyacinth	International Conference on Integrated Solid Waste Management Practices in Developing Countries (CSIR-NEERI-2017), National Environmental Engineering Research Institute (NEERI), Nagpur	2017
H. Hazarika, S. Lyngdoh, M. Khwairapam, A. S. Kalamdhad	Verm-conversion of Recalcitrant primary paper mill sludge by epigenic species Eisenia fedita	International Conference on Integrated Solid Waste Management Practices in Developing Countries (CSIR-NEERI-2017), National Environmental Engineering Research Institute (NEERI), Nagpur	2017
B. Saha, A. S. Kalamdhad	Anaerobic digestion of Perthenium Hysterophorous	International Conference on Integrated Solid Waste Management Practices in Developing Countries (CSIR-NEERI-2017), National Environmental Engineering Research Institute (NEERI), Nagpur	2017
K. R. Singh, A. S. Kalamdhad	Municipal solid waste dumping in Guwahati city: Case study	International Conference on Integrated Solid Waste Management Practices in Developing Countries (CSIR-NEERI-2017), National Environmental Engineering Research Institute (NEERI), Nagpur	2017
S. M. Jain, A. S. Kalamdhad	Rotary drum composting: A novel technology to treat aquatic weed (hydrilla)	International Conference on Integrated Solid Waste Management Practices in Developing Countries (CSIR-NEERI-2017), National Environmental Engineering Research Institute (NEERI), Nagpur	2017
Diptojit Datta, Anjan Dutta	Structural Health Monitoring Using Improved Subspace Identification Method By Including Rotational Degrees Of Freedom	International Conference on Vibration Problems, IIT Guwahati	2017

Conference Papers

Civil Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Biswajit Pal, Anjan Dutta	Comparative study among different vehicle models in case of high-speed railways and its experimental validation	International Conference on Vibration Problems, IIT Guwahati, India	2017
S. K. Patel, B. Singh	Experimental Investigation on the Behaviour of Glass Fibre-Reinforced Cohesive Soil for Application as Pavement Subgrade Material	International Journal of Geosynthetics and Ground Engineering	2017
S. K. Patel, B. Singh	Shear Strength Response of Glass Fibre-Reinforced Sand with Varying Compacted Relative Density	International Journal of Geotechnical Engineering	2017
Anurag Sharma, Bimlesh Kumar	Higher order statistics of Reynolds shear stress in nonuniform sand bed channel	International school of hydraulics, Jachranka, Poland	2017
S. Deori, R. Choudhary, D. Tiwari, A. Kumar	Deterioration Modelling of Flexible Pavements using HDM-4	National Conference on Roads and Transport (NCORT-2017), Indian Institute of Technology Roorkee	2017
J. Kainthola, A. S. Kalamdhad	Enhanced biogas production from co-substrate.	National Conference on Sustainable Advanced Technologies for Environmental Management (SATEM-2017), Indian Institute of Engineering Science and Technology (IIST), Shibpur	2017
P. K. Dammala, M. Rouholamin, G. Nikitas, S. Bhattacharya, A. M. Krishna	Lateral Response of Pile Foundations in Partially Liquefiable Soils	Proceedings of IFCEE 2018 Orlando, US	2018
P. K. Dammala, M. Rouholamin, G. Nikitas, S. Bhattacharya, A. M. Krishna, P. Mohanty	Bending Response of Pile Foundations during Partial Liquefaction	Proceedings of IGC 2017, IIT Guwahati	2017
C. P. Sarma, A. Dey, A. Murali Krishna	Investigation of Rainfall Induced Landslides at the Hillslopes of Guwahati Region, Assam	Proceedings of the 3rd India-Japan Workshop, Guwahati	2017
D. Biswas, S. A. Kartha	Temperature dependence of contact angle hysteresis	Proceedings of the 9th World Conference on Experimental Heat Transfer, Brazil	2017
M. L. Pattanaik, R. Choudhary, B. Kumar	Moisture Susceptibility of Open-Graded Asphalt Friction Course Mixes with an Industrial Waste	RECYCLE-2018, International Conference on Waste Management, IIT Guwahati	2018
A. K. Sarma	State of Hydrology in the Yarlung Zangbo/Brahmaputra/Jamuna basin	Water and Neighborhood Media Workshop, Chulalongkorn University Bangkok	2017
A. K. Sarma, Ajay Dashora, Arun Ch. Borsaikia	Long-Term Sustainability of Traditional Root Bridge of Meghalaya	Workshop on Living Root Bridge at Mawlynnong, East Khasi Hills, Meghalaya	2017
A. K. Sarma	Understanding the Dynamics of River	Workshop on Skill and Knowledge Building Training, Guwahati, organized by SaciWATERS, in collaboration with Centre for North East Studies and Policy Research (C-NES)	2017
Ravi K., Archana M. Nair, Uma	A review of potential sites of carbon dioxide capture and sequestration (CCS) in India	Workshop on sustainable geotechniques IGC 2017, IIT Kanpur	2017

Conference Papers**Civil Engineering**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
B. Bhowmik, M. Krishnan, B. Hazra, V. Pakrashi	Online damage detection using recursive principal components	X International Conference of Structural Dynamics, EUROLYN	2017

Conference Papers**Computer Science and Engineering**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Rahul, Sunil kumar Sahu, Ashish Anand	Biomedical Event Trigger Identification Using Recurrent Neural Network	ACL-BioNLP	2017
Aparajita Dutta, Tushar Dubey, Kusum Kumari Singh, Ashish Anand	SpliceVec: distributed feature representations for splice junction prediction	APBC	2018
Desh Raj, Sunil Kumar Sahu, Ashish Anand	Learning local and global contexts using a convolutional recurrent network model for relation classification in biomedical text	CoNLL	2017
Abhishek, Ashish Anand, Amit Awekar	Fine-Grained Entity Type Classification by Jointly Learning Representations and Label Embeddings	EACL	2017
L. Behera, P. Bhaduri	Time-Triggered Scheduling for Multiprocessor Mixed-Criticality Systems	ICDCIT	2018
Bala Prakasa Rao Killi, Seela Veerabhadreswara Rao	Link Failure aware Capacitated Controller Placement in Software Defined Networks	ICOIN	2018
Kunal Banerjee, Ramanuj Chouksey, Chandan Karfa, Pankaj Kumar Kalita	Automatic Detection of Inverse Operations while Avoiding Loop Unrolling	ICSE	2018
Bala Prakasa Rao Killi, Ellore Akhil Reddy, Seela Veerabhadreswara Rao	Cooperative game theory based network partitioning for controller placement in SDN	IEEE COMSNETS	2018
Sonia Sharma, Shivashankar B. Nair, Rashmi Dutta Baruah	An Immuno-inspired Online Feature Selection Mechanism	IEEE System Man and Cybernetics (IEEE SMC) (Core Ranking – B)	2017
Mousum Handique, Jatindra Kumar Deka, Santosh Biswas, Kamalika Datta	Minimal Test Set Generation for Input Stuck-at and Bridging Faults in Reversible Circuits	IEEE TENCON	2017
Basant Subba, Santosh Biswas, Sushata Karmakar	Host based intrusion detection system using frequency analysis of n-gram terms	IEEE TENCON	2017

Conference Papers

Computer Science and Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
B. Bhowmik, J. K. Deka, S. Biswas,	Charka: A Reliability-Aware Test Scheme for Diagnosis of Channel Shorts Beyond Mesh NoCs"	IEEE/ACM DATE 2017	2017
R. Devaraj, A. Sarkar, S. Biswas	Real-time scheduling of non-preemptive sporadic tasks on uniprocessor systems using supervisory control of timed DES	IFAC American Control Conference	2017
R. Devaraj, A. Sarkar, S. Biswas.	Fault-Tolerant Scheduling of Non-preemptive Periodic Tasks using SCT of Timed DES on Uniprocessor Systems	IFAC WC	2017
P. P. Nair, R. Devaraj, A. Sen, A. Sarkar, S. Biswas	DES based Modeling and Fault Diagnosis in Safety-critical Semi-Partitioned Real-time Systems	IFAC WC	2017
Sahil Manchanda, Ashish Anand	Representation learning of drug and disease terms for drug repositioning	In proceeding of 3rd IEEE International Conference on Cybernetics	2017
Badal Soni, Pradip K. Das, Dalton Meitei Thounaojam	Copy-Move Tampering Detection based on Local Binary Pattern Histogram Fourier Feature	International Conference on Computer and Communication Technology (ICCCCT-2017)	2017
Kunal Banerjee, Chandan Karfa	Compiler-agnostic Translation Validation	ISEC	2018
R. Chouksey, C. Karfa, P. Bhaduri	Translation Validation of Loop Invariant Code Optimizations Involving False Computations	VDAT	2017
Surajit Das, Chandan Karfa, Santosh Biswas	xMAS Based Accurate Modeling and Progress Verification of NoCs	VDAT	2017

Conference Papers

Design

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Akriti Kaur, Pradeep Yammiyavar	A comparative study of 2D and 3D mobile keypad user interaction preferences in virtual reality graphic user interfaces	23rd ACM Symposium on Virtual Reality Software and Technology, VRST 2017, Gothenburg, Sweden	2017
Deepshikha, P. Yammiyavar	A Comparative Study of Attitude Formation During Online and Real-Life Socialization and Its Implications on Design of Textile Wearables	7th International Conference on Kansei Engineering and Emotion Research 2018, Kuching, Malaysia	2018
Deepshikha, P. Yammiyavar, N. Nath	Textiles as communicating links for cultural traditions	7th International Conference on Kansei Engineering and Emotion Research 2018, Kuching, Malaysia	2018
S. Pal, S. Holkar, A. Yevalkar, A. Bhattacharjee	Juice Packaging Design: Effects of Transparency on Consumers' Perception Leading Toward Purchase Preference for Packaged Juice	Applied Human Factors and Ergonomics (AHFE) conference 2017	2018

Conference Papers**Design**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
N. Yein, S. Pal	Qualitative Study on Salient Factors Influencing Indian Elderly's Perception on Fall and Its Related Interventions	Applied Human Factors and Ergonomics (AHFE) conference 2017	2018
Keyur Sorathia, Aditi Singh, Mayank Chhabra	BendSwipe: One Handed Target Zooming for Flexible Handheld Display	IFIP Conference on Human-Computer Interaction, Interact'17	2017
Keyur Sorathia, Shimmila Bhowmick, Preetham Kamidi, Kshipra Sharma	Pragati-A Mobile Based Virtual Reality (VR) Platform to Train and Educate Community Health Workers	IFIP Conference on Human-Computer Interaction, Interact'17	2017
Akriti Kaur, Pradeep Yammiyavar	A cognitive load assessment study of three-dimensional interactive virtual reality interfaces	International Conference on Humanizing Work and Work Environment 2017, HWWE 2017, AMU, Aligarh	2017
Deepshikha, P. Yammiyavar, N. Nath	Smart textile trends and their implications in digitizing craft traditions	International Conference on Recent Trends and Sustainability in Crafts and Design, IICD, Jaipur	2017
P. Satpute, A. Shende, R. M. Punekar	Role of Industrial Design in the Innovative Applications of Solar Photovoltaic Energy for Rural India	Proceedings of ICMMRE 2017: International conference on Mechanical Materials and Renewable Energy, Sikkim Manipal Institute of Technology, Sikkim	2017
R. M. Punekar, S. Holkar, A. Yevalkar	Re-modeling the 'Phonebook' in a Smart Phone: Personalization Based on Intimacy and Immediacy	Proceedings of the 1st International Conference on Intelligent Human Systems Integration (IHSI 2018): Integrating People and Intelligent Systems, Dubai	2018
Mahamuni Ravi, Pramod Khambhete, Ravi Mokashi Punekar	Quasi-participatory Service Design in Organizational Context: A Case Study	ServDes 2018	2018
Mahamuni Ravi, Pramod Khambhete, Ravi Mokashi Punekar	Service Design for Behavioural Change – Current State of the Discipline and Practice in India	ServDes 2018	2018

Conference Papers**Electronics and Electrical Engineering**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Sunil Dutt, Bikram Paul, Anshu Chauhan, Sukumar Nandi, Gaurav Trivedi,	ApproxHash: Delay, Power and Area Optimized Approximate Hash Functions for Cryptography Applications	10th International Conference On Security Of Information And Networks	2017
Shubh Lakshmi, Sanjib Ganguly	OPEN unified power quality conditioner model with and without storage units to improve power quality and losses of radial distribution networks	14th IEEE India Council International Conference (INDICON), 2017	2017

Conference Papers

Electronics and Electrical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Upasana Sarma, Sanjib Ganguly	Determination of Rating Requirement for Fuel-Cell-Battery Hybrid Energy System to Substitute the Diesel Locomotives of Indian Railway	14th IEEE India Council International Conference (INDICON), 2017	2017
S. Deb, S. Dandapat	Emotion Classification using Dual-Tree Complex Wavelet Transform	14th IEEE India Council International Conference 2017 (INDICON), 2017	2017
P. K. Sharma, N. Nallam	A Transformer-less Duplexer with Out-of-Band Filtering for Same-Channel Full-Duplex Radios	2017 IEEE International Symposium on Circuits and Systems, Baltimore, MD, USA	2017
P. K. Sharma, N. Nallam	A widely tunable balunbased on 2-port N-path bandpass filters with embedded phase shifting	2017 IEEE International Symposium on Circuits and Systems, Baltimore, MD, USA	2017
Sai Krishna Santosh G., Harshal B. Nemade	Edge reflection type SAW resonators on silicon substrate using ZnO thin films	2017 IEEE International Ultrasonics Symposium	2017
L. N. Sharma	Heart Sound Segmentation Using Multiscale Squared Energy Envelope	2017 International Conference on Biomedical Engineering and Bioinformatics	2017
Tousif Khan Nizami, Arghya Chakravarty, Chitrakleha Mahanta	A Fast Learning Neuro Adaptive Control of Buck Converter driven PMDC Motor: Design, Analysis and Validation	20th IFAC World Congress, Toulouse, France	2017
Arghya Chakravarty, Tousif Khan Nizami, Indrani Kar, Chitrakleha Mahanta	Adaptive Compensation of Actuator Failures using Multiple Models	20th IFAC World Congress, Toulouse, France	2017
Abhijit Mazumdar, Srinibas Krishnaswamy, Somanath Majhi	H_Infinity Optimal Control over Erasure Channel	20th IFAC World Congress, Toulouse, France	2017
Gaurav Kumar, Mandeep Singh, Debashish Nandi, Gaurav Trivedi	Bandgap Generation in 2D Materials	2nd international conference on Devices for Integrated Circuit (DevIC) 2017	2017
Sridevi Gugulothu, Gaurav Kumar, Sushanta Kundu, Harshal B. Nemade, Gaurav Trivedi	Design Of a Next Generation Framework For MEMS Devices	2nd international conference on Devices for Integrated Circuit (DevIC) 2017	2017
Sarfraz Hussain, Rajesh Kumar, Gaurav Trivedi	Comparison and design of dynamic comparator in 180nm SCL technology for low power and high speed Flash ADC	3rd IEEE International Symposium on Nanoelectronic and Information Systems (IEEE-iNIS)	2017
Sarfraz Hussain, Rajesh Kumar, Gaurav Trivedi	A novel low power high speed BEC for 2GHz sampling rate Flash ADC in 45nm technology	3rd IEEE International Symposium on Nanoelectronic and Information Systems (IEEE-iNIS)	2017
Y. V. Karteek, Indrani Kar, Somanath Majhi	Consensus of Distributed Second Order Multi-agent System with Saturation and Uneven Time-Delays	3rd IFAC Conf on Advances in Control and Optimization of Dynamical Systems, Hyderabad	2018
V. M. Hrishikesan, Chandan Kumar, Marco Liserre	Voltage Quality Improvement in Smart Transformer Integrated Distribution Grid	43rd Annual Conference of the IEEE, Industrial Electronics Society (IECON2017), Beijing	2017

Conference Papers

Electronics and Electrical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Chandan Kumar, GiampaoloButicchi, Marco Liserre	Operation and Control of Smart Transformer-based Electric Vehicles Charging System	43rd Annual Conference of the IEEE, Industrial Electronics Society (IECON2017), Beijing	2017
Chandan Kumar, Rongwu Zhu, Marco Liserre	Investigation of Load Compensation Features of Smart Transformer in Medium Voltage Grid	43rd Annual Conference of the IEEE, Industrial Electronics Society (IECON2017), Beijing	2017
A. N. Yadav, R. Bhattacharjee	Gysel Type Unbalanced-to-Balanced Equal Power Divider	47th European Microwave Conference (EuMC), Nuremberg.	2017
H. Chel, P. K. Bora	A novel outlier detection based approach to registering pre- and post-resection ultrasound brain tumor images	4th International Conference on Advances in Electrical Engineering(ICAEE), 2017	2017
Gautam Sethia, Somanath Majhi, Sisir Kumar Nayak	Estimation of State of Charge of Li-ion Battery in EVs using Relay Feedback Approach and Super Twisting Sliding Mode Observer	56th IEEE Conference on Decision and Control, Melbourne, Australia	2017
H. Lala, S. Karmakar, Sanjib Ganguly	Fault diagnosis in distribution power systems using stationary wavelet transform and artificial neural network	7th International Conference on Power Systems (ICPS), Pune	2017
Shubh Lakshmi, Sanjib Ganguly	Energy loss minimization with open unified power quality conditioner placement in radial distribution networks using particle swarm optimization	7th International Conference on Power Systems (ICPS), Pune	2017
Mrutyunjay Maharana, Niharika Baruah, S. K. Nayak, N. Sahoo	Comparative study of mechanical and electrical strength of kraft paper in nanofluid based transformer oil and mineral oil	7th International Symposium on Electrical Insulating Materials (ISEIM), Toyohashi, Japan	2017
Dwijasish Das, Chandan Kumar	Operation and Control of Smart Transformer Based Distribution Grid in a Microgrid System	8th National Power Electronics Conference (NPEC), Pune	2017
V. M. Hrishikesan, Chandan Kumar	Power Management in a ST Integrated Medium Voltage Grid	8th National Power Electronics Conference (NPEC), Pune	2017
Rajdip Dey, Shabari Nath	A Simplified Charge Balancing Algorithm for Modular Multilevel Converter	9th IEEE PES Asia-Pacific Power and Energy Engineering Conference 2017	2017
Darpan Mishra, R. K. Sonkar	Mode and Loss Analysis of a Graded Si1-xGex Strip Waveguide	Asia Communications and Photonics Conference (ACP), Guangzhou, China	2017
Prasenjit Ghorai, Somanath Majhi	Autotuning and Dynamic Parameters Estimation of Dead-Time Processes	CHEMCON-2017, Haldia Regional Centre	2017
M. K. Joshi, S. K. Vyas, T. Tiwari, R. Bhattacharjee	Design of coaxial cavity for high power magnetron	Conference on Microwave Techniques (COMITE), Czech Republic	2017
J. Qumar, S. Christopher, R. Bhattacharjee	Target Detection with transmitters identity waveform for Multi-dynamic Radar scenario	IEEE Calcutta Conference (CALCON)-2017, Kolkata	2017
Amit Kumar Baghel, Sisir Kumar Nayak	Negative refractive index metamaterial for enhancing radiation directivity in S-band	IEEE Conference on Microwave and Photonics, IIT (ISM) Dhanbad	2018

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Electronics and Electrical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Mrutyunjay Maharana, S. K. Nayak, N. Sahoo, M. Chakraborty	Comparative statistical analysis on AC breakdown voltage of thermally aged nanofluid with mineral oil	IEEE Electrical Insulation Conference (EIC), Baltimore	2018
Yang Sheng, Ya Zhang, Hong Guo Gangxiang Shen Sanjay Kumar Bose	Employ Unidirectional Design to Alleviate Impact of Traffic Assymetry for Elastic Optical Networks	IEEE GLOBECOM 2017, Singapore	2017
A. Agrawal, R. S. Kshetrimayum	Average SINR Analysis of mm-Wave System at 60 GHz Using First and Second order Moments	IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), Bubhaneswar	2017
Amit Kumar Baghel, Pardha Sourya Nayani, Sisir Kumar Nayak	Metamaterial split ring resonator using thin ferrite slab at GHz frequency	IEEE International Conference on Communication and Electronics Systems (ICCES 2017), Thanjavur	2018
Tilendra Choudhary, L. N. Sharma, M. K. Bhuyan	Standalone Heartbeat Extraction in SCG Signal using Variational Mode Decomposition	IEEE International Conference on Wireless Communications Signal Processing and Networking	2018
Mithoon Kumar, Tilendra Choudhary, M. K. Bhuyan	Small Motion Magnification using Automated RoI Selection and Spatial Co-ordinate Approach	IEEE International Conference on Wireless Communications Signal Processing and Networking	2018
M. K. Bhuyany, Suchit Dhawley, Pradipta Sasmaly, Georgia Koukiouz	Intoxicated Person Identification using Thermal Infrared Images and Gait	IEEE International Conference on Wireless Communications Signal Processing and Networking	2018
Soumayan Dutta, Pradipta Sasmal, M. K. Bhuyan, Yuji Iwahori	Automatic Segmentation of Polyps in Endoscopic Image using Level-Set Formulation	IEEE International Conference on Wireless Communications Signal Processing and Networking	2018
M. Arrawatia, M. S. Baghini, G. Kumar	Broadband omnidirectional antenna for GSM900, GSM1800, 3G, 4G and Wi-Fi applications	IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting, San Diego	2017
Gaurav Kumar, Mandeep Singh, Ashok Kumar Ray, Gaurav Trivedi	An FEM based Framework to Simulate Semiconductor Devices Using Streamline Upwind Petrov-Galerkin Stabilization Technique	IEEE Microwave and Radio Electronics Week 2017	2017
J. Prajapati, M. Bharadwaj, A. Chatterjee, R. Bhattacharjee	Effect of near fields on radiation from photoconductive antenna	IEEE MTT-S International Conference on Numerical Electromagnetic and Multiphysics Modeling and Optimization for RF, Microwave, and Terahertz Applications (NEMO), Seville, Spain.	2017
Sridevi Guguothu, Gaurav Kumar, Harshal B. Nemade, Gaurav Trivedi	Design of a FEM Based Simulator for MEMS Devices	IEEE Region 10 Conference (TENCON) 2017	2017
Shikha Baghel, S. R. M. Prasanna, Prithwijiit Guha	Classification of multi speaker shouted speech and single speaker normal speech	IEEE TENCON 2017	2017

Conference Papers

Electronics and Electrical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Ripudaman Singh, Brijesh Rai, Sanjay Bose	A Contention Based Routing Enhanced MAC Protocol for Transmission Delay Reduction in a Multi-Hop WSN	IEEE TENCON 2017, Penang, Malaysia	2017
Arijit Bhattacharjee, Ratnajit Bhattacharjee, Sanjay Kumar Bose	A Dynamic Approach for Channel Time Allocation in IEEE 802.15.3 Based Parent-Child Piconet Model	IEEE TENCON 2017, Penang, Malaysia	Nov-17
Mohd. Mansoor Khan, Ramesh Kumar Sonkar	Overmodulation Gain Dynamics in Thulium Doped Fiber Amplifiers Including Amplified Spontaneous Emission	IEEE TENCON 2017: Advanced Technology for Humanity	2017
N. Kumar, G. Sreeram, R. Sinha	Exploring Dictionary Diversity for Improved Sparse Coding Based Speaker Verification	Indian Council International Conference (INDICON), Roorkee	2017
Abhishek Dey, Wendy Lalminghlui, Priyankoo Sarmah, K. Samudravijaya, S. R. Mahadeva Prasanna, R. Sinha, S. R. Nirmala	Mizo Phone Recognition System	Indian Council International Conference (INDICON), Roorkee	2017
A. Roy, H. B. Nemade, R. Bhattacharjee	Phase coded nonlinear chirp modulation in multiuser communication systems	Innovations in Electronics, Signal Processing and Communication (IESC), Shillong	2017
J. Prajapati, M. Bharadwaj, A. Chatterjee, R Bhattacharjee	Equivalent electrical circuit model of Terahertz photoconductive antenna receiver in a pulsed system	Innovations in Electronics, Signal Processing and Communication (IESC), Shillong	2017
S. Shah Nawazuddin, Deepak K. T., Gayadhar Pradhan, Rohit Sinha	Enhancing noise and pitch robustness of children's ASR	International Conference Audio Speech and Signal Processing (ICASSP), New Orleans, USA	2017
Vivek Venugopal, Abhishek Sharma, Rishabh Singh, Abhinav Sharma, Suresh Sundaram	A Vector Quantization Based Feature Descriptor for Online Signature Verification	International Conference Document Analysis Recognition 2017	2017
Vineeta Das, S. Dandapat, P. K. Bora	Diagnostic Information based Super-Resolution of Retinal Optical Coherence Tomography Images	International conference in signal processing and communications 2018	2018
K. Karthik, S. Chakraborty, S. Banik	Muzzle Analysis for Biometric Identification of Pigs	International Conference on Advances in Pattern Recognition (ICAPR 2017), Bangalore	2017
A. Soni, P. Jharia, S. Chouhan	Energy Contribution of Control Packets of AODV in Various Mobility Models in MANET	International Conference on Communication Devices and Networking (ICCDN)	2017
Kannan Karthik, Balaji Rao Katika	Image Quality Assessment based Outlier detection for Face Anti-Spoofing	International Conference on Communication Systems, Computing and IT Applications (CSCITA 2017), Mumbai	2017
Kannan Karthik, Balaji Rao Katika	Face Anti-spoofing Based on Sharpness Profiles	International Conference on Industrial and Information Systems (ICIIS 2017), Peradeniya, Sri Lanka	2017
Kannan Karthik, H. Balaraman	Key independent Encrypted Face Clustering	International Conference on Industrial and Information Systems (ICIIS 2017), Peradeniya, Sri Lanka	2017

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Electronics and Electrical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
D. Jyotishi, S. Deb, A. Abhishek, S. Dandapat	Experimental Analysis on Effect of Nasal Tract on Nasalised Vowels	International Conference on Machine Intelligence and Signal Processing (MISP 2017)	2017
A. Abhishek, S. Deb, S. Dandapat	Analysis of Breathy, Emergency and Pathological Stress Classess	International Conference on Machine Intelligence and Signal Processing (MISP 2017)	2017
Pamshangphy Raikham, Rohit Kumar, Rahul Kumar Shah, Mery Hazarika, R. K. Sonkar	Non-Invasive Blood Components Measurement Using Optical Sensor System Interface	International Conference on Microwave and Photonics 2018, IIT Dhanbad	2018
Mathew Francis, Prithwijit Guha	Object Tracking with Classification Score Weighted Histogram of Sparse Codes	International Conference on Pattern Recognition and Machine Intelligence (LNCS – 10597)	2017
Kannan Karthik, Parveen Malik	Purple Fringing Aberration Detection based on Content Adaptable Thresholds	International Conference on Smart Systems, Innovations and Computing (SSIC 2017), Jaipur	2017
Upasana Sarma, Sanjib Ganguly	Modelling and cost-benefit analysis of PEM Fuel-Cell-Battery hybrid energy system for locomotive application	International Conference on Technologies for Smart City Energy Security and Power (ICSESP)	2018
A. N. Yadav, R. Bhattacharjee	Balanced-to-Unbalanced In-phase Power	International Microwave and RF Conference (IMaRC)-2017, Ahmedabad	Jul-05
N. Kumar, R. K. Das, S. Jelil, Dhanush B. K., H. Kashyap, K. S. R. Murty, S. Ganapathy, R. Sinha, S. R. M. Prasanna	IITG-Indigo System for NIST 2016 SRE Challenge	Interspeech, Stockholm, Sweden	2017
S. Jelil, R. K. Das, S. R. M. Prasanna, R. Sinha	Spoof Detection Using Source, Instantaneous Frequency and Cepstral Features	Interspeech, Stockholm, Sweden	2017
Vineeta Das, S. Dandapat, P. K. Bora	Region Selective Information Augmentation for Retinal Images	National conference on Communications, (NCC 2018), Hyderabad,	2018
G. Sreeram, R. Sinha	Exploiting Parts-of-speech for Improved Textual Modeling of Code-Switching Data	National Conference on Communications (NCC 2018), Hyderabad	2018
Ameya Godbole, Spoorthy Bhat, Prithwijit Guha	Progressively Balanced Multi-class Neural Trees	National Conference on Communications (NCC 2018), Hyderabad	2018
V. Viswanath, S. Alam, R. S. Kshetrimayum	Spectrum Sensing and Collision with Primary Users in MIMO Cognitive Radio	National Conference on Communications (NCC 2018), Hyderabad	2018
F. Tang, L. Li, S. K. Bose, G. Shen	Assigning Counter-Propagating Cores in Multi-Core Fiber Optical Networks to Suppress Inter-Core Crosstalk and Inefficiency due to Bi-directional Traffic Asymmetry	OFC 2018	2018
K. Chen, C. Guo, L. Li, S. K. Bose, G. Shen	Maximizing Availability-Weighted Slice Capacity for Sliceable Wireless-Optical Broadband Access Networks	OFC 2018	2018

Conference Papers**Electronics and Electrical Engineering**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
N. Wang, W. Shao, S. K. Bose, G. Shen	MixCo: Optimal Cooperative Caching for Mobile Edge Computing in Fiber-Wireless Access Networks	OFC 2018	2018
Salil Kashyap, C. Mollen, Emil Bjornson, Erik G. Larsson	Performance analysis of (TDD) massive MIMO with Kalman channel prediction	Proc. ICASSP, New Orleans, USA	2017
G. Sreeram, R. Sinha	Exploring Recurrent Neural Network based Acoustic and Linguistic Modeling for Children's Speech Recognition	Region 10 Conference (TENCON), Penang, Malaysia	2017
O. P. Singh, R. Sinha	Sparse representation classification over discriminatively learned dictionary for language recognition	Region 10 Conference (TENCON), Penang, Malaysia	2017
T. Nama, A. K. Gogoi, P. Tripathy	Application of a smart hall effect sensor system for 3-phase BLDC drives	2017 IEEE International Symposium on Robotics and Intelligent Sensors (IRIS)	2017
Amit Vishwakarma, M. K. Bhuyan, Yuji Iwahori	An Efficient Algorithm for Medical Image Fusion using Non-subsampled Shearlet Transform	Second International Conference on Computer Vision & Image Processing (CVIP-2017)	2017
D. Jyotishi, S. Deb, S. Dandapat	A Novel Feature for Nasalised Vowels and Characteristic Analysis of Nasal Filter	Twenty Fourth National Conference on Communications (NCC),	2018
S. Deb, S. Dandapat	Exploration of Phase Information for Speech Emotion Classification	Twenty-third National Conference on Communications (NCC)	2017
Sameer Pawanekar, Gaurav Trivedi	Fast FPGA Placement Using Analytical Optimization	VLSI Design and Test (VDAT) 2017	2017
Sameer Pawanekar, Gaurav Trivedi	Analytical Partitioning : Improvement over FM	VLSI Design and Test (VDAT) 2017	2017
Ashok Kumar Ray, Gaurav Kumar, Dheeraj Sinha, Pratima Agarwal, Gaurav Trivedi,	FEM based Device Simulator for High Voltage Devices	VLSI Design and Test (VDAT) 2017	2017

Conference Papers**Humanities and Social Sciences**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Rajlakshmi Saikia, Sanasam Ranbir Singh, Priyankoo Sarmah	Effect of Language Independent Transcribers on Spoken Language Identification for Different Indian Languages	21st International Conference on Asian Language Processing	2017
M. A. Ansari, N. Tripathi, R. Aafaqi, S. Tripath	Supervisors upward exchange relationships and organizational citizenship behavior: Testing the moderating role of individual-level cultural orientation	Annual meeting of Academy of International Business (AIB 2017), Dubai	2017

Conference Papers**Humanities and Social Sciences**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Abhishek Dey, Wendy Lalhminghlui, Priyankoo Sarmah, K. Samudravijaya, S. R. Mahadeva Prasanna, Rohit Sinha, S. R. Nirmala	Mizo Phone Recognition System	Indicon 2017	2017
Pranti Dutta, Bodhisattva Sengupta	Socioeconomic Determinants of Maternal Anemia: A Disaggregated Level Analysis from Assam, India	International Conference on Public Health	2018
Sishir Kalita, Wendy Lalhminghlui, Luke Horo, Priyankoo Sarmah, S. R. Mahadeva Prasanna, Samarendra Dandapat	Acoustic Characterization of Word-final Glottal Stops in Mizo and Assam Sora	Interspeech 2017	2017
Indranil Dutta, S. Irfan, Pamir Gogoi, Priyankoo Sarmah	Nature of Contrast and Coarticulation: Evidence from Mizo Tones and Assamese Vowel Harmony	Interspeech 2017	2017
Moakala Tzudir, Priyankoo Sarmah, S. R. Mahadeva Prasanna	Tonal feature based dialect discrimination in two dialects in Ao	Region 10 Conference, TENCON 2017 - 2017 IEEE	2017
Saswati Rabha, Phunuma Mazumdar, Priyankoo Sarmah, S. R. Mahadeva Prasanna	Detection of aspiration in rabha alveolar fricatives using zero frequency filtering V	Region 10 Conference, TENCON 2017 - 2017 IEEE	2017
Gunjan Kumar, S. Borbora	Institutional Environment Differences across the Indian states for entrepreneurial development	SIBR-THAMMASAT 2017 Conference On Interdisciplinary Business & Economics Research	2017

Conference Papers**Mathematics**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Jiten C. Kalita	An HOC approach for patterns using Gray-Scott model.	Conference Proceedings : International Conference on Numerical Analysis and Applied Mathematics	2017
Akash Yadav, Ashok Singh Sairam	Concurrent Team Formation for Multiple Tasks in Crowdsourcing Platform	IEEE Global Communications Conference	2017
Debasish Pattanayak, H. Ramesh, Partha Sarathi Mandal, Stefan Schmid	Evacuating Two Robots from Two Unknown Exits on the Perimeter of a Disk with Wireless Communication	Proc. of 19th International Conference on Distributed Computing and Networking (ICDCN 2018)	2018
Ashok Singh Sairam, Sagar Kumar Verma	Using Bounded Binary Particle Swarm Optimization to Analyze Network Attack Graphs	The 19th International Conference on Distributed Computing and Networking (ACM)	2018

Conference Papers**Mathematics**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Debasish Pattanayak, Kaushik Mondal, Partha Sarathi Mandal, Stefan Schmid	Convergence of Even Simpler Robots without Position Information.	The 5th International Conference on NETworked sYStems (NETYS 2017), (Springer-Verlag), Marrakech, Morocco	2017
Samant Saurabh, Ashok Singh Sairam	Inferring the Deployment of Source Address Validation Filtering using Silence of Path-Backscatter	Twenty Fourth IEEE National Conference on Communications	2018

Conference Papers**Mechanical Engineering**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Ashirgade, S. R., Jhalani A. and Gautam S. S.	Comparison of explicit time integration schemes for dynamic problems	3rd Indian Conference on Applied Mechanics (INCAM 2017), MNIT Allahabad	2017
Avinish Tiwar, Piyush Singh, Pankaj Biswas, Sachin D. Kore	Effect of traverse speed on FSW of AISI 1006 low carbon steel	10th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN 2017), IIT Madras	2017
S. Kar, P. Kumari	A review on three-dimensional solution approaches for bending and dynamic analysis of piezolaminated cylindrical shell structures	13th International Conference on Vibration Problems (ICOVP-2017)	2017
S. Behera, P. Kumari	Effect of adhesive thickness on the free vibration of arbitrary supported smart plates	13th International Conference on Vibration Problems (ICOVP-2017)	2017
B. Prabhakar, P. Kumari, S. Agyapal, K. Shranish	Experimental study of piezoelectric beam under free and forced vibration response for energy harvestin application	13th International Conference on Vibration Problems (ICOVP-2017)	2017
V. Agrawal, S. S. Gautam	A comparative study of contact problem solution based on different isogeometric contact formulations	13th World Congress on Computational Mechanics / 2nd Pan American Congress on Computational Mechanics (WCCM 2018)	2018
M. Ravi Sankar, V. K. Jain, K. P. Rajurkar	Rheological and Nano-finishing Studies of Elastically Dominant Multiple Polymers Blend Based Abrasive Flow Finishing Medium	19th CIRP Conference on Electro Physical and Chemical Machining, Bilbao, Spain	2018
A. Sahu, R. Thakur, V. Agrawal, S. S. Gautam	A comparative study of explicit time integration algorithms for non-linear systems	1st International Conference on Future Learning Aspects of Mechanical Engineering (FLAME - 2018), Amity University, Noida	2018
G. Saipraneeth, S. S. Gautam	Nonlinear finite element analysis of a gecko spatula adhesion on a rigid substrate	1st International Conference on Future Learning Aspects of Mechanical Engineering (FLAME - 2018), Amity University, Noida	2018

Conference Papers

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
D. Bora, M. Kumar, S. S. Gautam	Simulation of ductile fracture at high velocity impact of cylindrical tubes	1st International Conference on Future Learning Aspects of Mechanical Engineering (FLAME - 2018), Amity University, Noida	2018
V. Agrawal, S. S. Gautam	An isogeometric based study of mortar contact algorithm for frictionless sliding	1st International Conference on Future Learning Aspects of Mechanical Engineering (FLAME - 2018), Amity University, Noida	2018
Avinish Tiwar, Piyush Singh, Pankaj Biswas, Sachin D. Kore	Friction Stir Welding of AISI 1006 Low Carbon Steel	1st International Conference on Mechanical Engineering (INCOM 2018), Jadavpur University	2018
V. Agrawal, S. S. Gautam	Investigation of contact pressure oscillations with different segment-to-segment based isogeometric contact formulations	1st International Conference on Numerical Modelling in Engineering, Ghent University, Belgium	2018
K. K. Gajrani, A. Kumar, M. Ravi Sankar	Fabrication of Biodegradable Magnesium Alloy (Az 31) Thin Wall with Minimum Quantity Environmental Friendly Cutting Fluids	21ST ADNAT Convention and International Symposium on Biodiversity and Biobanking (BIODIVERSE 2018) IIT Guwahati	2018
K. K. Gajrani, M. Ravi Sankar	Cutting Fluid Emissions in Mechanical Machining and its Adverse Effects on Biodiversity	21ST ADNAT Convention and International Symposium on Biodiversity and Biobanking (BIODIVERSE 2018), IIT Guwahati	2018
S. Singh, M. Ravi Sankar, P. Ranjan, R. Balasubramaniam	Development and rheological study of the polymer blended viscoelastic medium for finishing of microholes	2nd International conference on Advanced Materials Research and Manufacturing Technologies (AMRMT-2017), Phuket, Thailand	2017
P. Kumari	Three dimensional solutions for smart composite/sandwich plates subjected to Levy-type support conditions using extended Kantorovich method	3rd Euro Congress on Iron, Steel and Construction Engineering, London	2017
Agrawal. V, and Gautam S. S.	Enrichment of finite elements with higher order Hermite polynomials for adhesive contact problems	3rd Indian Conference on Applied Mechanics (INCAM) 2017, MNNIT Allahabad	2017
Saurav Suman, Pankaj Biswas, Basil Kuriachen, Abhijit Sinha	Modelling an arc welded fillet joint for minimum welding induced distortions	3rd International Conference on Design, Analysis, Manufacturing and Simulation, ICDAMS 2018, Chennai	2018
P. Dinesh, M. R. Behera, P. G. Ranjith, N. Muthu	An Element-Free Galerkin (EFG) Meshfree Method Model for Carbon Sequestration	3rd International Conference on Multiphase Flow and Heat Transfer, Budapest	2018
S. R. Jena, A. Dalal, G. Natarajan	Development of Turbulent Axisymmetric Solver Over a Hybrid Unstructured Grid	44th National Conference on Fluid Mechanics and Fluid Power, Amrita University, Kollam	2017
P. Dinesh, M. R. Behera, P. G. Ranjith, N. Muthu	Application of an efficient numerical model for CO ₂ sequestration in deep saline aquifers	4th International Conference in Ocean Engineering, IIT Madras	2018
M. Ravi Sankar	Nano-finishing of Bio-Implants using Polymer Rheological Abrasive Complex Suspensions	4th International Symposium on Advances in Sustainable Polymers (ASP-2018), IIT Guwahati	2018

Conference Papers

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
S. Bag	Feasibility of dissimilar microwelding using femtosecond pulse laser	5th International Congress of the International Institute of Welding, Chennai	2017
A. Sahu, S. Bag	Micro-plasma Arc welding of Inconel718 thin Sheets	5th International Congress of the International Institute of Welding, Chennai	2017
U. S. Dixit	Keynote in National Conference on Applied Sciences, Sustainable & Evolving Technologies	63rd Annual Technical Session of Assam Science Society, ASSET 2018, CIT Kokrajhar	2018
M. Ravi Sankar	Nanofinishing of Bio-Implants using Polymer Rheological Abrasive Complex Suspensions	6th Asian Biomaterials Congress (ABMC-2017), Thiruvananthapuram	2017
R. Thirumalaisamy, M. Parmananda, A. Dalal, G. Natarajan	Development of a Low Mach Number Solver to Study Combined Turbulent Convective-Radiative Heat Transfer	6th Asian Symposium on Computation Heat Transfer and Fluid Flow, IIT Madras	2017
B. Nath, M. P. Borthakur, G. Biswas, A. Dalal	Deformation of a Droplet in Constricted Microfluidic Channels at Low Reynolds number	6th Asian Symposium on Computation Heat Transfer and Fluid Flow, IIT Madras	2017
K. Kumar Gajrani, P. S. Suvin, S.Vasu Kailash, M. Ravi Sankar	Comparative studies on thermal, rheological behavior of eco-friendly cutting fluids and their machining performance	6th International and 27th All India Manufacturing Technology Design and Research (AIMTDR) Conference, COEP Pune	2017
A. Singh, N. A. Manikandan, M. Ravi Sankar, K. Pakshirajan, L. Roy	Experimental Investigation and Surface Morphology of Bio-Micromachining on Copper	7th International Conference of Materials Processing and Characterization (ICMPC), GRIET Hyderabad	2017
B. V. Ramanaiah, B. Manikanta, M. Ravi Sankar, M. Malhotra, K. Kumar Gajrani	Experimental Study of Deflection and Surface Roughness in Thin Wall Machining of Aluminum Alloy	7th International Conference of Materials Processing and Characterization (ICMPC), GRIET Hyderabad	2017
M. Bhuyan, A. Sarmah, K. K. Gajrani, A. Pandey, T. G. Thulkar, M. Ravi Sankar	State of Art on Minimum Quantity Lubrication in Grinding Process	8th International Conference of Materials Processing and Characterization (ICMPC), GRIET Hyderabad	2018
S. Banik, N. Kalita, K. K. Gajrani, R. Kumar, M. Ravi Sankar	Recent Trends in Laser Assisted Machining of Ceramic Materials	8th International Conference of Materials Processing and Characterization (ICMPC), GRIET Hyderabad	2018
S. Bag, D. K. Yaduwanshi, S. Pal	Role of physical variables in dynamic recrystallization during friction stir welding of aluminium alloy	Advances in Materials & Processing Technologies, Chennai	2017
B. Kumar, M. Baruah, S. Bag	On the effect of heat input in cooling rate and microstructure of laser welded Ti-6Al-4V alloy	Advances in Materials & Processing Technologies, Chennai	2017
P. K. Talukdar, V. Kulkarni, D. Dehingia, U. K. Saha	Evaluation of a model helical bladed hydrokinetic turbine characteristics from in-situ experiments	ASME 2017 11th International Conference on Energy Sustainability, Charlotte, USA	2017
A. Singh, R. Hazarika, P. Kumari	Three-dimensional analytical solution of FGM panel with varying material properties along in-plane directions using Extended Kantorovich Method	ICCE-25, Rome	2017

Conference Papers

Mechanical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
J. Manik, M. Parmananda, S. Kotoky, P. Borgohain, A. Dalal, G. Natarajan	Lessons from Anupravaha: Towards a General Purpose Computational Framework on Hybrid Unstructured Meshes for Multi-Physics Applications	ICHMT International Symposium on Advances in Computational Heat Transfer, Napoli, Italy	2017
S. Bag, M. R. Amin	Simulation based study on ultra-short pulse laser welding of dissimilar materials expending phase lag influence	IMECE 17,Tampa, Florida	2017
Subhajit Sanfui, Deepak Sharma	GPU Acceleration of Local Matrix Generation in FEA by Utilizing Sparsity Pattern	1st International Conference on Mechanical Engineering (INCON 2018) Jadavpur University	2018
Nada Barakat, Deepak Sharma	Multi-Objective Optimization Framework and its Experimental Validation for Bulldozer in Soil Cutting	In Proceedings of the Indian Geotechnical Conference 2017 GeoNEst, IIT Guwahati	2017
R. Kumar, M. Pandey	Numerical simulation of slug-plug flow in narrow channels of heat pipe,	In Proceedings of the 44th National Conference on Fluid Mechanics and Fluid Power (FMFP-2017), Kollam, Kerala	2017
A. Kamath, S. K. Sarma, A. Iqbal, M. Pandey	Numerical simulation of fluid flow and heat transfer in miniature channels incorporating the effect of local properties	In Proceedings of the 44th National Conference on Fluid Mechanics and Fluid Power (FMFP-2017), Kollam, Kerala	2017
A. Singh, P. Kumari	Accurate stress solution for laminated rectangular plates bonded with functionally graded adhesive interlayer and subjected to transverse loading	INCAM – 2017, MNNIT Allahabad	2017
S. Behera, P. Kumari	Free vibration analysis of piezoelectric plate using Mixed-field Extended Kantorovich Method	INCAM – 2017, MNNIT Allahabad	2017
A. Noor, S. S. Gautam	Finite element analysis of effect of surface roughness on particle erosion of ductile material	INCOM 2018 1st International Conference on Mechanical Engineering, Jadavpur University, Kolkata	2018
A. Johnney Mertens, S. Senthilvelan	Adhesive Wear Performance of PP/MWCNT Composites	International Conference on Advances in Manufacturing and Materials Engineering AMEE2014, NIT Suratkal March	2017
M. Ravi Sankar	Rheological and Nano-finishing Studies of Elastically Dominant Multiple Polymers Blend Based Abrasive Flow Finishing Medium	International Conference on Advances in Polymer Science and Technology (APA-2017), New Delhi	2017
A. Singh, P. Kumari	Analytical solution of functionally graded beam having longitudinal stiffness variation	International Conference on Composite Materials and Structures, Hyderabad	2017
P. Kumari. S. Kar	Three dimensional elasticity solution for a simply supported cylindrical composite panel using the extended Kantorovich method	International Conference on Composite Materials and Structures, Hyderabad	2017
A. Singh, N. A. Manikandan, M. Ravi Sankar, K. Pakshirajan, L. Roy	Development of Nozzle Feature on Copper Surface by Bio-Micromachining	International Conference on Manufacturing Technology and Simulation (ICMTS), IIT Madras	2017
B. Das, S. Pal, S. Bag	Weld defect identification in friction stir welding using power spectral density	International Conference on Recent Advances in Materials & Manufacturing Technologies (IMMT 2017), Dubai	2017

Conference Papers

Mechanical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
S. Bag	Microscale heat transfer in fusion welding of glass by ultra-short pulse laser using dual phase lag effects	International Conference on Recent Advances in Materials & Manufacturing Technologies (IMMT 2017), Dubai	2017
U. K. Tarai, P. S. Robi, Sukhomay Pal	Development of a Novel Ni-Fe-Cr-B-Si Interlayer Material for Transient Liquid Phase Bonding of Inconel 718	International Conference on Recent Advances in Materials & Manufacturing Technologies (IMMT 2017), BITS Pilani Dubai Campus, Dubai	2017
J. Das, P. S. Robi, M. Ravi Sankar	International Creep Behavior of Nugget Zone of Friction Stir Welded 2014 Aluminum Alloy	International conference on Recent Advances in Materials & Manufacturing Technologies, Dubai	2017
U. Kiran, S. S. Gautam	A GPU-based simulation of nonlinear finite element problems	International Conference on Theoretical, Applied, Computational and Experimental Mechanics, IIT Kharagpur	2017
V. Agrawal, S. S. Gautam	NURBS-enriched contact isogeometric element for adhesive contact problems	International Conference on Theoretical, Applied, Computational and Experimental Mechanics, IIT Kharagpur	2017
V. Satheeshkumar, R. Ganesh Narayanan	Assessment of Formability of Adhesive Bonded Steel Sheets by Geometrical Heterogeneities	International conference on Advances in Materials and Manufacturing (ICAMM 2017), NIFFT, Ranchi	2017
K. Kumar Gajrani, S. Kumar Mallick, M. Ravi Sankar	Comparative Studies on Mineral Oil, Eco Friendly Bio-Cutting Fluids Treatment and their Machining Performance	National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB), Tezpur University	2017
N. Alom, U. K. Saha	Arriving at the optimum overlap ratio for an elliptical-bladed Savonius rotor	ASME 2017 Turbo Expo, Charlotte, North Carolina	2017
N. Alom, N. Kumar, U. K. Saha	Aerodynamic performance of an elliptical-bladed Savonius rotor under influence of number of blades and shaft	ASME 2017 Gas Turbine India Conference, Bangalore	2017
S. Roy, R. Das, U. K. Saha	Identification of geographical locations to operate Savonius wind turbine rotor for meeting a desired performance	Paper No. GTIndia2017-4566, ASME 2017 Gas Turbine India Conference, Bangalore	2017
P. K. Talukdar, V. Kulkarni, A. K. Das, S. K. Dwivedy, S. K. Kakoty, P. Mahanta, U. K. Saha	In-situ experiments to estimate the performance characteristics of a double-step helical-bladed hydrokinetic turbine	Paper No. GTIndia2017-4572, ASME 2017 Gas Turbine India Conference, Bangalore	2017
D. V. N. Lakshmi, Apurba Layek, P. Muthukumar	Performance analysis of a mixed mode forced convection solar dryer with and without thermal energy storage heat exchanger	International Conference on Mechanical Materials and Renewable Energy, Sikkim Manipal Institute of Technology, Sikkim	2017
L. K. Kaushik, S. Deb, P. Muthukumar	Energy Saving and Techno-economic Assessment of Self Aspirated Domestic LPG Stove with Porous Radiant Burner	International Conference on Mechanical Materials and Renewable Energy, Sikkim Manipal Institute of Technology, Sikkim	2017
Aditya Kumar, Atman Patel, S. K. Dwivedy	Development of a NAO humanoid based medical assistant	Proceedings of Advances in Robotics (AIR 2017) - 3rd International Conference of the Robotics Society of India, IIT Delhi	2017

Conference Papers

Mechanical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Upasana Talukdar, Shyamanta M. Hazarika	Designing spatio-temporal filter using adaptive sliding window for single trial EEG based BCI	Proceedings of Advances in Robotics (AIR 2017) - 3rd International Conference of the Robotics Society of India, IIT Delhi	2017
S. Kirtania, D. Chakraborty	Determination of Thermoelastic Properties of Carbon Nanotube/Epoxy Composites using Finite Element Method	Proceedings of International Conference on Emerging Trends in Nanoscience and Nanotechnology (ICETINN-2017), Sikkim Manipal Institute of Technology, Sikkim	2017
D. V. N. Lakshmi, Apurba Layek, P. Muthukumar	Drying of moringa olefera leaves in mixed mode and indirect forced convection solar dryers	Proceedings of Proceedings of the International Conference on Sustainable Energy and Environmental Challenges (SEEC-2018), IISc Bangalore	2018
L. K. Kaushik, S. Deb, P. Muthukumar	Life cycle and techno-economic assessments of domestic and commercial LPG cook-stove with porous radiant burner	Proceedings of Proceedings of the International Conference on Sustainable Energy and Environmental Challenges (SEEC-2018), IISc Bangalore	2018
P. E. Jasinta, D. V. N. Lakshmi, K. Yashwant, P. Muthukumar	Drying characteristic of mixed mode type solar dryer using forced convection and thermal storage for ginger	Proceedings of the 24th National and 2nd International ISHMT-ASTFE Heat and Mass Transfer conference (ihmtc-2017), BITS Pilani, Hyderabad,	2017
D. V. N. Lakshmi, P. Muthukumar, Apurba Layek, K. S. Abhimanyu, D. Sushoban	Performance analysis of double pass counter flow solar air heater for drying application	Proceedings of the 24th National and 2nd International ISHMT-ASTFE Heat and Mass Transfer conference (ihmtc-2017), BITS Pilani, Hyderabad	2017
H. Niyas, P. Muthukumar	Appropriate sizing prediction and performance evaluation of the shell-and-tube latent heat storage unit	Proceedings of the 24th National and 2nd International ISHMT-ASTFE Heat and Mass Transfer conference (ihmtc-2017), BITS Pilani, Hyderabad	2017
L. K. Kaushik, S. Deb, P. Muthukumar	Assessment of energy saving potential in self aspirated LPG stove with porous radiant burner	Proceedings of the 24th National and 2nd International ISHMT-ASTFE Heat and Mass Transfer conference (ihmtc-2017), BITS Pilani, Hyderabad	2017
V. Pandey, G. Biswas, A. Dalal	Dependence of Growth Rate, Pinch-off Velocity and Size of a Single Bubble During Film Boiling on Superheat and Gravity-level	Proceedings of the 24th National and 2nd International ISHMT-ASTFE Heat and Mass Transfer Conference, BITS-Pilani, Hyderabad	2017
B. Nath, M. P. Borthakur, G. Biswas, A. Dalal	Dynamics of Droplet Deformation in Microchannels with Symmetric and Asymmetric Constrictions	Proceedings of the ASME 2017 International Mechanical Engineering Congress & Exposition, Tampa, Florida	2017
M. Ravi Sankar, K. Kumar Gajrani	Cutting Fluid Emissions and Eco-Friendly Cutting Fluid for Sustainable Machining	Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB), March 25-26, 2017, Tezpur University	2017
S. Kirtania, D. Chakraborty	Representative Volume Element Based Finite Element Modeling of Carbon Nanotube (CNT)-Reinforced Composites with a Broken CNT	Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond(SMETB), March 25–26, 2017 at Tezpur University	2017

Conference Papers

Mechanical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
M. Kumar, S. S. Gautam	Parametric study of ballistic impact using continuum damage mechanics (CDM) model	Second Quadrennial International Conference on Structural Integrity (ICONS 2018), IIT Madras	2018
S. S. Gautam	GPU-based Simulation of Nonlinear Finite Element Problems	Seventh International Conference on Theoretical, Applied, Computational and Experimental Mechanics, IIT Kharagpur	2017
R. R. Behera, A. H. , L. Pandey, M. Ravi Sankar	Laser Surface Bio-Coating of Functionally Graded TiO ₂ -HAp on Textured Ti Alloy for Enhancing Bioactivity and Cell Proliferation	Research Conclave 2018	2018

Conference Papers

Physics

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Ramakrishna Madaka, Pilik Basumatary, Venkanna Kanneboina, Pratima Agarwal	Amorphous silicon thin film solar cells fabricated on different substrates (ID: ABS_R9798)	19th International workshop in the Physics of semiconductor devices (IWPSD-2017), IIT Delhi	2017
Ramakrishna Madaka, Juhi Kumari, Venkanna Kanneboina, Pratima Agarwal	Hydrogenated amorphous silicon solar cells fabricated at low substrate temperature 110°C on flexible PET substrate (ID: H-0060)	2nd International conference on Condensed matter and applied Physics (ICC-2017), Bikaner	2017
P. K. Baruah, M. A. Raman, I. Chakrabarty, L. Rangan, A. K. Sharma, Alika Khare	Antibacterial effect of silk treated with silver and copper nanoparticles synthesized by pulsed laser ablation in distilled water	2nd International conference on condensed matter and applied physics (ICC-2017), Govt. Engineering College, Bikaner	2017
Eshita Mal, Rajendra Junjuri, M. K. Gundawar, Alika Khare	Spectroscopic characterization of laser induced molybdenum plasma in air	2nd Meghnadsaha Memorial International Symposium-cum Workshop on Laser induced breakdown spectroscopy, University of Allahabad	2018
Deepak Kumar, S. Jagan Mohan Rao, Gagan Kumar, Dibakar Roy Chowdhury	Engineering the Resonances in Coupled Bilayer Terahertz Metamaterials	4th International Conference on Nanoscience and Nanotechnology (ICONN-2017)	2017
S. Biswas, D. C. Joshi, T. Nagendrababu, P. Pramanik, S. Ghosh, T. A. Dar, S. Thota	High Frequency Dielectric Studies of Sodium Doped Mott-Insulators	5th International Conference on Advanced Nanomaterial and Nanotechnology (ICANN-2017), IIT Guwahati	2017
T. A. Dar, D. C. Joshi, R. T. George, S. Thota	High temperature Dielectric behavior of KNaNbO ₃ and CuO composites	5th International Conference on Advanced Nanomaterial and Nanotechnology (ICANN-2017), IIT Guwahati	2017
S. Nayak, R. Soni, R. T. George, T. A. Dar, D. C. Joshi, S. Thota	On the Vibrational Excitations in Ferroelectric KNbO ₃ and Antiferromagnetic MgMnO ₃ Composites	5th International Conference on Advanced Nanomaterial and Nanotechnology (ICANN-2017), IIT Guwahati	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
S. Ghosh, S. Nayak, P. K. Mishra, S. Thota	Structural and Magnetic properties of Al doped Cobalt Orthotitanate	5th International Conference on Advanced Nanomaterial and Nanotechnology (ICANN-2017), IIT Guwahati	2017
Prahlad K. Baruah, A. K. Sharma, Alika Khare	Effect of laser energy on the SPR and size of silver nanoparticles synthesized by pulsed laser ablation in distilled water	62nd DAE Solid State Physics Symposium (DAE SSPS-2017), BARC, Mumbai	2017
Rahul Kesarwani, Alika Khare	Compositional Study of Pulsed Laser Deposited Semitransparent Cu Thin Film using BEMA	62nd DAE Solid State Physics Symposium (DAE SSPS-2017), BARC, Mumbai	2017
Amol Nande, Patta Ravikumar, Perumal Alagarsamy	Effect of oxidation on the structural, vibrational, magnetic and electrical properties of Fe thin films	AIP Conference Proceeding	2017
Pratap Behera, S. Ravi	Structural, Dielectric and Magnetic studies of Zn doped Y-type Hexaferrite	Condensed Matter Days -2017	2017
Aakansha, S. Ravi	Study of structural, Magnetic and Dielectric properties of Y ₃ Fe ₅ -xCr _x O ₁₂	Condensed Matter Days -2017	2017
Eshita Mal, Alika Khare	Characterization of laser produced tungsten plasma in air using time resolved laser induced breakdown spectroscopy	DAE-BRNS National Symposium NLS-26, BARC, Mumbai	2017
Maidul Islam, Dibakar Roy Chowdhury, Gagan Kumar	Planar Plasmonic Terahertz Waveguides for Sensor Applications	ICOLS 2018: 20th International Conference on Optics, Lasers and Spectroscopy	2018
Koijam Monika Devi, Maidul Islam, Dibakar Roy Chowdhury, Amarendra K. Sarma, Gagan Kumar	Exploring plasmon induced transparency in graphene based terahertz metamaterials	IEEE Workshop on Recent Advances in Photonics	2017
S. Jagan Mohan Rao, Rakesh Sarkar, Divyam Khandelwal, Gagan Kumar, Dibakar Roy Chowdhury	Studying the near field capacitive coupling in planar terahertz metamaterial	IEEE Workshop on Recent Advances in Photonics	2017
Maidul Islam, K. M. Dhriti, Dibakar Roy Chowdhury, Gagan Kumar	Thin film sensing in terahertz plasmonic waveguide	IEEE Workshop on Recent Advances in Photonics	2017
Krishna Mohan Dwivedi, Gaurav Trivedi, Sunil Khijwania	Design and Analysis of Fiber Bragg Grating Employing Novel Apodization Profile	IEEE Workshop on Recent Advances in Photonics WRAP 2017	2017
Venkanna Kanneboina, Pilik Basumatary, Ramakrishna Madaka, Pratima Agarwal	Spectroscopic Ellipsometry Investigation of Optical and Structural Properties of a-Si:H Thin Films (Abs Id: 20)	International conference on "energy options tomorrow: Technology to sustainability", The Neotia University, Kolkata	2017
P. Pramanik, D. C. Joshi, S. Thota	Optical and Magnetization studies MnCo ₂ -pCuO ₄ Ferrimagnetic Spinel	International Conference on Advanced Functional Materials (ICAFM 2017), RGUKT, Basar, Telangana State	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
D. C. Joshi, P. Pramanik, S. Thota	The role of Na doping on the Antiferromagnetic ordering of NiO	International Conference on Advanced Functional Materials (ICAFM 2017), RGUKT, Basar, Telangana State	2017
Nagendra Kumar, Alika Khare, Bosanta R. Boruah	A comparison between optical and non-optical methods for in-situ Surface profiling and thickness measurement of thin film	International conference on Advances in Optics and Photonics (XLI conference of Optical Society of India)	2017
Krishna Mohan Dwivedi, Gaurav Trivedi, Sunil Khijwania	Novel Apodization Profile for Performance Optimization of Uniform and Linearly Chirped Fiber Bragg Gratings	International Conference on Advances in Optics and Photonics (XLI Conference of Optical Society of India), ICAOP 2017	2017
Aakansha Singh, S. Ravi	Magnetic and Dielectric properties of Y3-xSmxFe5O12	International Conference on Condensed Matter and Applied Physics	2017
P. K. Baruah, A. K. Sharma, A. Khare	Laser ablation of copper target in distilled water and 2-propanol for nanoparticle synthesis	International Conference on Laser Ablation (COLA 2017), Marseille, France	2017
Bibhuti B. Dash, S. Ravi	Magnetic characterization of orthochromites using vibrating sample magnetometer	International Conference on Sophisticated Instruments in Modern Research (ICSIMR 2017)	2017
Junmoni Barman, S. Ravi	Effect of Mn substitution in the magnetic properties of NiCr2O4: a systematic study by using vibrating sample magnetometer	International Conference on Sophisticated Instruments in Modern Research (ICSIMR 2017)	2017
Pratap Behera, S. Ravi	Magnetic characterization of Zn doped Y-type Hexaferrite	International Conference on Sophisticated Instruments in Modern Research (ICSIMR 2017)	2017
Aakansha Singh, S. Ravi	Magnetic and Dielectric Properties of Y3-x SmxFe5O22	International Conference on Sophisticated Instruments in Modern Research (ICSIMR 2017)	2017
Venkanna Kanneboina, Ramakrishna Madaka, Pratima Agarwal	Spectroscopic ellipsometry investigation of hydrogenated amorphous and nano crystalline silicon thin films (Abs Id: PP82)	International Conference on Sophisticated Instruments in Modern Research (ICSIMR-2017), Central instrument facility, IIT Guwahati	2017
Ramakrishna Madaka, Venkann Kanneboina and Pratima Agarwal	Raman mapping and Raman scattering studies to understand the Evolution of nanostructure in a-Si:H films deposited at different temperature (ID: PP68)	International Conference on Sophisticated Instruments in Modern Research (ICSIMR-2017), Central instrument facility, IIT Guwahati, Guwahati, India, June 30 - July 01, 2017	2017
Prahlad K. Baruah, A. K. Sharma, Alika Khare	Characterization of noble metal nanoparticles synthesized via pulsed laser ablation in liquid	International Conference on Sophisticated Instruments in Modern Research (ICSIMR-2017), IIT Guwahati	2017
Rahul Kesarwani, Alika Khare	Characterization of PLD thin film via spectroscopic ellipsometry	International Conference on Sophisticated Instruments in Modern Research (ICSIMR-2017), IIT Guwahati	2017
T. A. Dar, D. C. Joshi, S. Nayak, R. T. George, S. Ghosh, S. Thota	High frequency ac-electrical transport studies of ferroelectric KNaNbO3 and CuO composites	International Conference on Systems and Processes in Physics, Chemistry and Biology (ICSPPCB- 2018)	2018
R. T. George, T. A. Dar, D. C. Joshi, S. Nayak, S. Thota	Structural and ac-electrical transport of Anti-ferroelectric NaNbO3 and NiO composites	International Conference on Systems and Processes in Physics, Chemistry and Biology (ICSPPCB- 2018)	2018

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
S. Ghosh, S. Singh, P. K. Mishra, S. Thota	Density Functional Theory Studies of Co-based Spinel	International Conference on Systems and Processes in Physics, Chemistry and Biology (ICSPPCB- 2018)	2018
Sasmita Behera, Alikha Khare	Effect of Substrate Temperature on BaTiO ₃ thin films fabricated by Pulsed Laser Deposition Technique	International conference on thin films (ICTF 2017), Department of Physics, CSIR-National Physical Laboratory New Delhi	2017
Ramakrishna Madaka, Venkann Kanneboina, Pratima Agarwal	Hydrogenated amorphous silicon solar cells deposited at 150 °C low-cost photo paper substrate	International Conference on Thin Films, National Physical Laboratory, New Delhi	2017
Venkanna Kanneboina, Ramakrishna Madaka, Pratima Agarwal	Improved performance of the c-Si/a-Si:H heterojunction solar cells with hydrogen plasma treatment	International Conference on Thin Films, National Physical Laboratory, New Delhi	2017
S. Biswas, D. C. Joshi, S. Ghosh, S. Thota, P. Mishra	Molecular dynamic simulation studies of thermal diffusion of lithium and lithium based alloys	MRSI symposium on Advances in Functional and Exotic Materials (AFEM 2018)	2018
P. Pramanik, D. C. Joshi, S. Thota	Ferrimagnetic behavior and Optical properties of MnCo ₂ -pCuO ₄	Nanostructures National Conference on Nanomaterials and its Applications (NCNA-17), Golaghat	2017
D. C. Joshi, P. Pramanik, T. Nagendrababu, S. Thota	Electronic structure and Dielectric studies of Na doped NiO	National Conference on Nanomaterials and its Applications (NCNA-17), Golaghat	2017
Sasmita Behera, Amandeep Kaur, Alikha Khare	Structural and optical properties of SrTiO ₃ thin films fabricated by Pulsed Laser Deposition Technique	National Conference on recent Advances in Science and Technology, Assam Science and Technology University, Guwahati	2018
Prahlad K. Baruah, A. K. Sharma, Alikha Khare	Particle size, surface plasmon resonance and stoichiometry of silver nanoparticles synthesized by pulsed laser ablation in distilled water	National Conference on recent Advances in Science and Technology, Assam Science and Technology University, Guwahati	2018
Partha P. Dey, Alikha Khare	Third order Nonlinear optical properties of Si, SiO _x and a-SiC PLD thin films using Z-Scan technique	National Conference on recent Advances in Science and Technology, Assam Science and Technology University, Guwahati	2018
P. Pramanik, D. C. Joshi, S. Ghosh, T. A. Dar, R. T. George, S. Thota	Vibrational Excitations in Ferrimagnetic Spinel MnCo ₂ O ₄	National Workshop on Fluorescence and Raman Spectroscopy, 2017, IIT Guwahati	2017
Venkanna Kanneboina, Ramakrishna Madaka, Pratima Agarwal	Hydrogen Plasma Treatment Induced crystallinity in a-Si:H Films Studied by Ellipsometry and Raman Spectroscopy	National Workshop on Fluorescence and Raman Spectroscopy, IIT Guwahati	2017
Ramakrishna Madaka, Venkann Kanneboina, Pratima Agarwal	Nanostructure in a-Si:H films: Raman mapping and Raman scattering studies, National work shop on Fluorescence and Raman spectroscopy	National Workshop on Fluorescence and Raman Spectroscopy, IIT Guwahati	2017
T. A. Dar, D. C. Joshi, S. Nayak, R. T. George, S. Ghosh, S. Thota	Structural and Micro-Raman studies of Ferroelectric KNaNbO ₃ and CuO composites	National Workshop on Fluorescence and Raman Spectroscopy, IIT Guwahati	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Ranjan Kalita, S. S. Goutam Buddha, Bosanta R. Boruah	Suitability of holographic beam scanning in high resolution applications	Proceedings of SPIE	2018
S. S. Goutam Buddha, Ranjan Kalita, Bosanta R. Boruah	Estimation of point spread function of an imaging system using a programmable target	Proceedings of SPIE	2018
Venkanna Kanneboina, Ramakrishna Madaka, Pratima Agarwal	High open circuit voltage c-Si/a-Si:H heterojunction solar cells with hydrogen plasma treatment	Research conclave-2018, IIT Guwahati	2018
Ramakrishna Madaka, Venkanna Kanneboina, Pratima Agarwal	Hydrogenated amorphous silicon based thin film solar cells on low cost photo paper and polyimide sheets	Research conclave-2018, IIT Guwahati	2018
A. Meher, A. Thakur, D. C. Joshi, P. Pramanik, S. Thota	Morphotropic Phase Boundary Engineering and Dielectric Excitations in NaNbO ₃ -MgMnO ₃ Composites	Research Conclave-2018, IIT Guwahati	2018
A. Thakur, P. Pramanik, D. C. Joshi, A. Meher, S. Thota	High Temperature Dielectric Behavior of Spin-1/2 Frustrated Kagome Magnet Co ₃ V ₂ O ₈	Research Conclave-2018, IIT Guwahati	2018
S. Jagan Mohan Rao, Maidul Islam, Gagan Kumar, Bishnu P. Pal, Dibakar Roy Chowdhury	Single split gap resonator based terahertz metamaterials for refractive index sensing	Terahertz, RF, Millimeter, and Submillimeter-Wave Technology and Applications XI	2018

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Mrutyunjay Maharana, Niharika Baruah, S. K. Nayak, N. Sahoo	Comparative study of mechanical and electrical strength of kraft paper in nanofluid based transformer oil and mineral oil	7th International Symposium on Electrical Insulating Materials (ISEIM), Toyohashi, Japan	2017
Ritesh S. Malani, Sohan Singh, Arun Goyal, Vijayanand S. Moholkar	Chapter 5 Ultrasound-assisted biodiesel production using KI-impregnated zinc oxide (ZnO) as heterogeneous catalyst: a mechanistic approach	Conference Proceedings of the Second International Conference on Recent Advances in Bioenergy Research	2018
Mrutyunjay Maharana, S. K. Nayak, N. Sahoo, M. Chakraborty	Comparative statistical analysis on AC breakdown voltage of thermally aged nanofluid with mineral oil	IEEE Electrical Insulation Conference (EIC), Baltimore, USA	2017
Asha Yadav, Juhi Kumari, Pratima Agarwal	Role of interface states on electron transport in a-Si:H/nc-Si:H multilayer structures	International Conference on Condensed Matter and Applied Physics'2017 (ICC 2017), Govt. Engineering Collage, Bikaner	2017
Vivek Ghritlahre, Juhi Kumari, Pratima Agarwal	Synthesis and Study of Molybdenum diselenide (MoSe ₂) by Solvothermal Method	International Conference on Condensed Matter and Applied Physics'2017 (ICC 2017), Govt. Engineering Collage, Bikaner	2017
Shubhangi Bhardwaj, Pilik Basumatary, Pratima Agarwal	Influence of argon flowrate on structural and optical properties of TiO ₂ thin films deposited using rf-sputtering	International Conference on Condensed Matter and Applied Physics'2017 (ICC 2017), Govt. Engineering Collage, Bikaner	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Pilik Basumatary, Pratima Agarwal	Synthesis of uniform MAPbI ₃ thin film for large area perovskite solar cells using thermal evaporation	International Conference on Energy Options for Tomorrow: Technology to Sustainability, The Neotia University, Kolkata	2017
Asha Yadav, Pilik Basumatary, Pratima Agarwal	Growth of a-Si:H and nc-Si:H thin films at high deposition rate by HWCVD technique	International Conference on Energy Options for Tomorrow: Technology to Sustainability, The Neotia University, Kolkata	2017
L. K. Kaushik, S. Deb, P. Muthukumar	Energy Saving and Techno-economic Assessment of Self Aspirated Domestic LPG Stove with Porous Radiant Burner	International Conference on Mechanical Materials and Renewable Energy, Sikkim Manipal Institute of Technology, Sikkim	2017
Priyanki Das, Pranab Goswami	Silk sericin for enhancing the conductivity and stability of Graphite paste ink	International Conference on Sophisticated Instruments in Modern Research, (ICSIMR)	2017
Asha Yadav, Pratima Agarwal	Influence of Laser intensity on microstructure of Si thin films in Laser Raman scattering studies	International Conference on Sophisticated Instruments in Modern Research'2017 (ICSIMR 2017), CIF, IIT Guwahati	2017
Asha Yadav, Pratima Agarwal	Persistent photoconductivity and space charge limited conduction in a-Si:H/nc-Si:H: Role of interface states	International Conference on Thin Films, CSIR-National Physical Laboratory, New Delhi	2017
Pilik Basumatary, Pratima Agarwal	Large area uniform MAPbI ₃ thin films for perovskite solar cells using two step technique	International Conference on Thin Films, CSIR-National Physical Laboratory, New Delhi	2017
Pilik Basumatary, Pratima Agarwal	Large area MAPbI ₃ perovskite thin films by two step method with improved stability	International Workshop on The Physics of Semiconductor Devices, IIT Delhi	2017
Vivek Ghritlahare, Shubhangi Bhardwaj, Juhi Kumari, Pratima Agarwal	Synthesis and Characterization of 2D-TMDC materials: MoS ₂ , MoSe ₂ and WS ₂	International Workshop on The Physics of Semiconductor Devices, IIT Delhi	2017
Shubhangi Bhardwaj, Pilik Basumatary, Venkanna Kanneboina, Pratima Agarwal	Influence of process pressure on structural and optical properties of TiO ₂ thin films deposited using RF sputtering	National Conference on Advances in Spectroscopic Techniques and materials, Indian Institute of Technology (Indian Schools of Mines), Dhanbad	2018
Pilik Basumatary, Shubhangi Bhardwaj, Pratima Agarwal	Large area uniform MAPbI ₃ thin films for perovskite solar cells using two step technique	National Conference on Advances in Spectroscopic Techniques and materials, Indian Institute of Technology (Indian Schools of Mines), Dhanbad	2018
Asha Yadav, Pratima Agarwal, Rana Biswas	Tunable visible photoluminescence in a-Si:H/nc-Si:Hsuperlattice structures	National Workshop on FLUORESCENCE and RAMAN spectroscopy'2017 (FCS 2017), IIT Guwahati	2017
K. Vigneshwaran, R. C. R. Chilaka, P. Muthukumar, S. Senthilmurugan	Sensible Heat Based Thermal Energy Storage System: Modelling and Parametric Investigations	Proceedings of the 24th National and 2nd International ISHMT-ASTFE Heat and Mass Transfer conference (IHMTTC-2017), BITS Pilani, Hyderabad	2017
L. K. Kaushik, S. Deb, P. Muthukumar	Assessment of energy saving potential in self aspirated LPG stove with porous radiant burner	Proceedings of the 24th National and 2nd International ISHMT-ASTFE Heat and Mass Transfer conference (IHMTTC-2017), BITS Pilani, Hyderabad	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
L. K. Kaushik, S. Deb, P. Muthukumar	Life cycle and techno-economic assessments of domestic and commercial LPG cook-stove with porous radiant burner	Proceedings of the International Conference on Sustainable Energy and Environmental Challenges (SEEC-2018), IISc Bangalore	2017
Asha Yadav, Pratima Agarwal, Rana Biswas	Quantum size effects and tunable visible photoluminescence in a-Si:H/nc-Si:Hsuperlattices	Research Conclave'2018, IIT Guwahati	2018
Vivek Ghritlahre, Juhi Kumari, Pratima Agarwal	Opto-electrical and structural studies on rf-sputtered ZnO: Al thin films	Research Conclave'2018, IIT Guwahati	2018
Shubhangi Bhardwaj, Pilik Basumatary, Venkanna Kanneboina, Pratima Agarwal	Influence of substrate temperature on structural and optical properties of TiO ₂ thin films deposited using RF sputtering	Research Conclave'2018, IIT Guwahati	2018
Pilik Basumatary, Pratima Agarwal	<i>Large area uniform MAPbI₃ thin films for perovskite solar cells using two step technique</i>	Research Conclave'2018, IIT Guwahati	2018
Pankaj Kalita, Tushar Sharma	Performance evaluation of a Solar Powered VCRS based Cold Storage	Second International Conference on Sustainable Energy and Environmental Challenges (SEEC-2018), IISc Bangalore	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Tanushree Paul, Lalit Goswami, Kannan Pakshirajan, G. Pugazhenth	Optimization of micro-nutrients and process parameters for treatment of refinery wastewater by oleaginous <i>Rhodococcus opacus</i> for potential triacyl-glycerol (TAG) production	5th Annual conference on Recent Trends in Bio-processing for Healthcare, Energy and Environment (BPI-2017), Guwahati	2017
Visva Bharati Barua, Ajay S. Kalamdhad	Anaerobic digestion of water hyacinth with and without pretreatment	5th Annual conference on Recent Trends in Bio-processing for Healthcare, Energy and Environment (BPI-2017), Guwahati	2017
R. Gadela, A. A. Prabhu, L. Goswami, B. Mandal; Arun S., V. V. Dasu, K. Pakshirajan	Dairy wastewater as a cheap substrate for production of lipids and β -carotene using <i>Rhodotorula mucilaginosa</i>	5th Annual conference on Recent Trends in Bio-processing for Healthcare, Energy and Environment (BPI-2017), Guwahati	2017
Swati Sharma, Poulami Datta, Lalit M. Pandey	Utilization of waste cooking oil for rhamnolipid production using <i>Pseudomonas aeruginosa</i> strain	5th Annual conference on Recent Trends in Bio-processing for Healthcare, Energy and Environment (BPI-2017), IIT Guwahati	2017
Kaustubh Rakshit	Aforestation strategies for regeneration of tropical forest of Assam	Biodiverse -2018, Guwahati	2018
Deepmoni Deka, Partha Pratim Sarmah, Hirakjyoti Mahanta, Gopal Das	Bioresource available in NE-India as alternate substrate for biofuel production	Biodiverse -2018, Guwahati	2018

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Narendra Naik Deshavath, Bijayeeni Singh Deo, Jyothika Boddu, Komali vykuntam, Vaibhav. V Goud, V. Venkata Dasu	Dilute acid pretreatment efficiency on various solid loadings and effect of different neutralizing agents on xylulosic ethanol production	Biospectrum 2017, West Bengal	2017
Sayanti Ghosh, Saswati Chakraborty	Aerobic Granulation in Sequencing Batch Reactors (SBR) and Degradation of Waste Motor Oil	CHEMCON- 2017, Haldia Institute of Technology	2017
Poulami Datta, P. Tiwari, L. M. Pandey	Isolation and characterization of crude oil degrading bacteria from formation water of Assam oil reservoir, India	CHEMCON- 2017, Haldia Institute of Technology	2017
Papu Kumar Naik, Sandip Paul, Tamal Banerjee	Molecular Dynamic Simulations of the Ternary system: Quinoline, Heptane and Phosphonium Based Deep Eutectic Solvent (DES)	Fourth International Symposium on Advances in Sustainable Polymers (ASP-17), IIT Guwahati	2018
Tanushree Paul, Kannan Pakshirajan, G. Pugazhenth	Optimization of media and process conditions for high biomass production of Rhodococcus opacus from refinery wastewater for potential bio-oil production	Indo- Japan Bilateral Symposium on Future Perspective of Bio-resource Utilization "In North-Eastern Region" (IJBS- 2018), Guwahati	2018
L. Goswami, N. Arul Manikandan, J. Christon Ringle Taube, K. Pakshirajan, G. Pugazhenth	Evaluation of cheaply produced biochar from biomass gasification effluent for simultaneous polycyclic aromatic hydrocarbon biodegradation and lipid accumulation by Rhodococcus opacus	International Conference on Challenges in Environmental Science & Engineering, Kunming, China	2017
Debojit Bhattacharjee, Krishna P. Bhabak	Design, Synthesis and anticancer activities of Benzyl analogues of garlic- derived diallyl disulfide (DADS) and corresponding diselenides	International Conference on Chemistry for Human development (ICCHD-2018, Heritage Institute of Technology, Kolkata	2018
Nibedita Ghosh, Lal Mohan Kundu	Green and Novel Approach to Targeted Drug Delivery via Peptide Cyclization	International Conference on Chemistry for Human Development (ICCHD-2018), Heritage Institute of Technology, Kolkata	2018
L. Goswami, N. Arul Manikandan, K. Pakshirajan, G. Pugazhenth	Biodegradation of low molecular weight polycyclic aromatic hydrocarbons in ternary component system by Rhodococcus opacus: Factorial design analysis and degradation pathway elucidation	"International Conference on Emerging Trends in Biotechnology for Waste Conversion, CSIR-NEERI, Nagpur, Maharashtra "	2017
Papu Kumar Naik, Sandip Paul, Tamal Banerjee	Molecular Dynamic Simulations and Properties of Novel Deep Eutectic Solvents	International Conference on Emerging Trends in Chemical Sciences, Dibrugarh University, Dibrugarh	2018
Visva Bharati Barua, Ajay S. Kalamdhad	Optimisation of the most efficient thermal pretreatment technique for enhanced biogas production from water hyacinth	International Conference on Integrated solid waste management practices in developing countries, NEERI (CSIR), Nagpur	2018
Papu Kumar Naik, Sandip Paul, Tamal Banerjee	Characterization of deep eutectic solvents by NMR and FTIR spectroscopy	International Conference on Sophisticated Instruments in Modern Research (ICSIMR-2017), IIT Guwahati	2017

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Tanushree Paul, Kannan Pakshirajan, G. Pugazhenth	Biological treatment of Refinery wastewater using oleaginous/hydrocarbonoclastic <i>Rhodococcus opacus</i> for potential Triacylglycerol (TAG) production	International Conference on Waste Management (RECYCLE 2018), IIT Guwahati	2018
Visva Bharati Barua, Ajay S. Kalamdhad	Microbial pretreatment of water hyacinth followed by biogas production	International Conference on Waste Management (RECYCLE 2018), IIT Guwahati	2018
U. Jayakrishnan, Deepmoni Deka, Gopal Das	Optimization of F/M ratio for acidification of rice mill effluent	International Conference on Waste Management (RECYCLE 2018), IIT Guwahati	2018
Arnab Ghosh, Gopal Das	Recycling of waste PET bottles for synthesis of Sn(II) based Metal Organic Framework	International Conference on Waste Management (RECYCLE 2018), IIT Guwahati	2018
Sayanti Ghosh, Saswati Chakraborty	Treatment of Synthetic Oily Wastewater in Aerobic Granular Reactors (AGR)	International Conference on Waste Management (RECYCLE 2018), IIT Guwahati	2018
Poulami Datta, P.Tiwari, L. M. Pandey	Characterization and optimization study of biosurfactant produced by microorganism isolated from formation water of Assam oil reservoir	International Conference on Waste Management (RECYCLE 2018), IIT Guwahati	2018
Jinat Aktar, Saswati Chakraborty	Bio-mediated synthesis of iron nanoparticle and its characterization	International Conference on Waste Management (RECYCLE 2018), IIT Guwahati	2018
Jyoti Kainthola, Ajay S. Kalamdhad, V. V. Goud	Enhancement of Biogas from Rice straw by co-digestion with <i>Hydrilla verticillata</i>	International Conference on Waste Management (RECYCLE 2018), IIT Guwahati	2018
Mohd. Shariq, Jyoti Kainthola, Ajay S. Kalamdhad	Pretreatment of Rice straw for enhanced biogas production	International Conference on Waste Management (RECYCLE 2018), IIT Guwahati	2018
Jyoti Kainthola, Ajay S. Kalamdhad, V. V. Goud	Anaerobic digestion of <i>Hydrilla verticillata</i> by co- digestion with Rice straw	National Conference on Sustainable Advanced Technologie for Environmental Management (SATEM-2017), IISEST, Shibpur, Kolkata	2017
L. Goswami, J. Christon Ringle Taube, K. Pakshirajan, G. Pugazhenth	Characterization and potential application of effluent derived biochar for simultaneous enhancement in fluoranthene degradation and lipid accumulation by <i>Rhodococcus opacus</i>	National symposium on Recent Advancements in Environmental Research, Guwahati	2017
G. Roy, L. Goswami, K. Pakshirajan, G. Pugazhenth	Dairy wastewater treatment by oleaginous <i>Rhodococcus opacus</i> using a batch operated stirred tank reactor and biomass separation using atubular ceramic membrane for potential biodiesel production	National symposium on Recent Advancements in Environmental Research, Guwahati	2017
Tanushree Paul, Kannan Pakshirajan, G. Pugazhenth	Treatment of Refinery wastewater using oleaginous <i>Rhodococcus opacus</i> for potential bio-oil production	One day symposium on Recent Advancements in Environmental Research (RAER-2017), Guwahati	2017
M. Gopi Kiran, Kannan Pakshirajan, Gopal Das	Batch and continuous heavy metal removal by sodium alginate immobilized sulfate reducing bacteria	One day symposium on Recent Advancements in Environmental Research (RAER-2017), Guwahati	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Visva Bharati Barua, Ajay S. Kalamdhad	Pre-requisite of thermal pretreatment for accelerating hydrolysis and biogas production from water hyacinth	One day symposium on Recent Advancements in Environmental Research (RAER-2017), Guwahati	2017
Jyoti Kainthola, Ajay S. Kalamdhad, V. V. Goud	Life cycle assessment of different Rice straw practice in India	One day symposium on Recent Advancements in Environmental Research (RAER-2017), Guwahati	2017
U. Jayakrishnan, Deepmoni Deka, Gopal Das	Pretreatment of anaerobic sludge for valorization of rice mill effluent through acidogenic fermentation	Recent trends in Bioprocessing for healthcare, energy and environment (bpi 2017), Guwahati	2017
Visva Bharati Barua, Ajay S. Kalamdhad	Effect of Electrohydrolysis pretreatment on Anaerobic digestion of water hyacinth	Research Conclave 2018, IIT Guwahati	2018
M. Gopi Kiran, Kannan Pakshirajan, Gopal Das	Performance evaluation of sulfidogenic bioreactor systems for continuous removal of heavy metals from wastewater	Research Conclave 2018, IIT Guwahati	2018
Papu Kumar Naik, Sandip Paul, Tamal Banerjee	Sustainable Solvents for Green Extraction Processes	Research Conclave 2018, IIT Guwahati	2018
Rajneesh Kumar, Gurvinder Kaur Saini, Mohammad Jawed	Impact of Heavy Metal on Reactor Performance and Biomass Morphology of Sequencing Batch Reactors	Urbanization challenges in emerging economies, IIT Delhi	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Saptak Rarotra, Tapas Kumar Mandal, Dipankar Bandyopadhyay	Electrolytic Production of Hydrogen Energy by Water-Splitting in Polymer based Micro reactors	5th Symposium on Advanced Biological Inorganic Chemistry SABIC-2017, TIFR and IACS, Kolkata, India	2017
Neha Arora, Siddhartha Sankar Ghosh	Understanding Therapeutic Potential of PEGylated Silver Nanoclusters Loaded Recombinant PTEN	5th International Conference on Advanced Nanomaterial and Nanotechnology	2017
Deepanjalee Dutta, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Bimetallic Au–Ag nanoclusters embedded nanocarrier for bioimaging and suicide gene therapy of HeLa cancer cells	5th International Conference on Advanced Nanomaterial and Nanotechnology, IIT Guwahati	2017
Neha Arora, Siddhartha Sankar Ghosh	PEGylated Silver Nanoclusters Mediated Cytosolic Delivery of Tumor Suppressor Protein PTEN to Modulate in vitro Cellular Signalling	5th Nano Today Conference, Hawaii	2017
Sunny Kumar, Bhaskarjyoti Sharma, A. Dalal, D. Basu, A. K. Dasmashapatra, Dipankar Bandyopadhyay	Field Induced Anomalous Spreading, Oscillation, Ejection, Spinning, and Breaking of Oil Droplets on Strongly slipping Water Surface	Chemical Physics of Electroactive Materials, Faraday Discussions Cambridge University, United Kingdom	2017

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Ashish Singh, Anamika Dey, Parameswar K. Iyer	Improvement of Charge Carrier Dynamics in P3HT:PC61BM Based Solar Cell in Presence of Organic Cathode Interfacial Layers	ICEE 2016, IIT Bombay	2017
AnamikaDey, Ashish Singh, Parameswar K. Iyer	Poly (3-hexylthiophene-2,5-diyl) based Highly Light-sensitive Organic Field Effect Transistor	ICEE 2016, IIT Bombay	2017
Amit Kumar Singh, K. K. Dey, Arun Chattopadhyay, Tapas Kumar Mandal, Dipankar Bandyopadhyay	Intelligent pH responsive chemo-magnetotacticmicrobots	International Conference on Advances in Biological Systems and Materials Science in NanoWorld (ABSMSNW-2017), IIT BHU, Varanasi	2017
Abir Ghosh, Dipankar Bandyopadhyay, Ashutosh Sharma	Contact Instability Induced High Aspect Ratio Ordered Micro/Nano-Structures in Adhesion and Debonding of Thin Viscoelastic Films in the Presence of Homogeneous and Heterogeneous Contactor	International Conference on Emerging Trends in Nanoscience and Nanotechnology (ICETINN – 2017), Sikkim Manipal Institute of Technology, Sikkim	2017
Shirsendu Mitra, Abir Ghosh, Dipankar Bandyopadhyay	A Computational Study on Travelling Wave Periodic Column/ Hole Formation Employing Electric Field Lithography	International Conference on Emerging Trends in Nanoscience and Nanotechnology (ICETINN– 2017), Sikkim Manipal Institute of Technology, Sikkim	2017
Surjendu Maity, Sunny Kumar, Ashok Kumar Dasmahapatra, Dipankar Bandyopadhyay	Wettability of water droplet on PDMS and Graphene micro/ nano patterned surface	International Conference on Emerging Trends in Nanoscience and Nanotechnology 2017, Sikkim Manipal Institute of Technology, Sikkim	2017
Md. Rashid Faridi, Sunny Kumar, A. K. Dasmahapatra, Dipankar Bandyopadhyay	Motions of soft liquibots under magnetic field	Microfluidics, Liquid Handling and Lab on a Chip-2017, Hyderabad	2017
Bhaskarjyoti Sharma, Sunny Kumar, A. Dalal, D. Basu, A. K. Dasmahapatra, Dipankar Bandyopadhyay	Directional motion of Nanoparticle Laden Droplets on Micro-Fiber Highway	Nano India 2017, IIT Delhi	2017
Deepanjalee Dutta, ArunChattopadhyay, Siddhartha Sankar Ghosh	Bimetallic Au–Ag Nanoclusters embedded Cationic BSA nanocarrier for Bioimaging and Suicide gene therapy of HeLa cancer cells	NanoBiotech'17 Trivandrum	2017
Sunil kumar Sailapu,Deepanjalee Dutta, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Smartphone based portable device for photodynamic therapy and colorimetric assays	North East Biostart, Guwahati Biotech Park	2018
Bhaskarjyoti Sharma, Sunny Kumar, A. Dalal, D. Basu, A. K. Dasmahapatra, Dipankar Bandyopadhyay	On demand manipulation of nanoparticle laden nanoparticle microdroplets	Reflux 2017, IIT Guwahati	2017

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Mitradip Bhattacharjee, Harshal Nemade, Dipankar Bandyopadhyay	Nanoparticle based lung monitoring device	Reflux 2017, IIT Guwahati	2017
Mitradip Bhattacharjee, Viswanath Pasumarthi, Joydip Chaudhuri, Amit Kumar Singh, Harshal Nemade, Dipankar Bandyopadhyay	Microfluidic vapour sensor and energy harvester	Research Conclave 2017, IIT Guwahati	2017
Bhaskarjyoti Sharma, Sunny Kumar, A. Dalal, D. Basu, A. K. Dasmahapatra, Dipankar Bandyopadhyay	Morphology of Electrified droplets on dielectric coated electrode	Research Conclave 2017, IIT Guwahati	2017
Sunny Kumar, A. K. Dasmahapatra, D. Bandyopadhyay	Dynamics of liquibots under magnetic field	Research Conclave 2017, IIT Guwahati	2017
Anitha T Simon Deepanjale eDutta, Sunilkumar Sailapu, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Smartphone based portable device for photodynamic therapy and colorimetric assays	Research Conclave, IIT Guwahati	2018

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S. Mitra, P. Singh	A comparative study to evaluate the roles of amendment and land use on nutrient and enzyme mobilization in earthworm casts produced in soils of Himachal Pradesh, India	105th Indian Science Congress, Imphal, Manipur.	2018
Esha Bala, Neha Jha, Siddhartha Singha	Process engineering of germination and malting of grains: a critical analysis	Adnat silver jubilee convention international symposium on biodiversity and biobanking biodiverse, IIT Guwahati	2018
Bhaskar Kalita, Bhaskar Das, Sanjukta Patra	Macro fungi biodiversity and prospects for its sustainable cultivation in rural areas of North East India	Biodiverse 2018, IIT Guwahati	2018
Bhaskar Kalita, Bhaskar Das, Sanjukta Patra	Bio-processing of agricultural bio-waste via macro fungi cultivation for promotion of rural livelihood	Bioprocessing India 2017, IIT Guwahati	2017

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Virendra Kumar Gautam, Rakhi Chaturvedi	In vitromicropropagation of elite Stevia rebaudiana Bertoni plants	Bioprocessing India 2017, IIT Guwahati	2017
K. Chaturvedi, K. Das, S. Singha	Uncertainty in Predictive Microbiology of Solid Food Products: A Case Study of Paneer	Indo- Japan Bilateral Symposium on Future Perspective of Bioresource Utilization in North-Eastern Region (IJBS 17), Guwahati	2018
Virendra Kumar Gautam, Rakhi Chaturvedi	Mass Clonal propagation of elite Stevia rebaudiana (Bertoni): A commercial and medicinal plant	Indo- Japan Bilateral Symposium on Future Perspective of Bioresource Utilization in North-Eastern Region (IJBS 17), Guwahati	2018
Esha Bala, Siddhartha Singha	Nutritional Mapping of Cabbage processing	Indo-Japan Bilateral Symposium on Future Perspective of Bioresource Utilization in North-Eastern Region (IJBS 17), Guwahati	2018
Neha Jha, Esha Bala, Siddhartha Singha	Soy peptides: a review of processing conditions and bioactivity	Indo-Japan Bilateral Symposium on Future Perspective of Bioresource Utilization in North-Eastern Region (IJBS 17), Guwahati	2018
J. Hazarika, S. Lyngdoh, M. Khwairakpam, A. S. Kalamdhad	Vermiconversion of recalcitrant primary paper mill sludge by epigeic species Eisenia fetida	Integrated Solid Waste Management Practice in Developing Countries-2017	2017
S. Mitra	Community Based Climate Risk Management in different Agro-ecologies through Participatory Technology Development and Dissemination	International Academic Conference IGNOU-AHD2017, IIT Guwahati	2017
Bhaskar Das, Bhaskar Kalita, Sanjukta Patra	Valorization of mushroom using coffee processing waste as substrate	International Conference on Agriculture and human development in India: indigenous practices, scientific views and sustainability	2017
Bibhuti Ranjan Bhattacharjya, Sashindra Kumar Kakoty	Fostering sustainability in resource constraint society through Frugal Innovation Knowledge in the context of Pottery sector of Assam	International Conference on Frugal Innovation for Sustainable Global Development organized by Center for Frugal Innovation in Africa at Museum Volkenkunde, Leiden, Netherlands	2017
Bibhuti Ranjan Bhattacharjya, Sourav Kumar Sarmah, Sashindra Kumar Kakoty	Design and Development of Technology Appropriate to Rural Community to address Sustainability	International Conference on Rural Technology Development and Delivery: RuTAG and its Synergy with other Initiatives, IIT Delhi	2018
S. Mitra	Managing Land and Water under Changing Population and Climatic Conditions in India	International Symposium on Sustainable Urban Environment (ISSUE) 2017, Department of Environmental Science, Tezpur University	2017
Srimonti Dutta, Manoj Sharma, Suranjit Basumatary, Ajay Kalamdhad	A Study on the Variation of Metal Concentration of Soil Considering Sloped and Flat-Terrain Tea Estates of Assam	Recycle 2018, IIT Guwahati	2018

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Sumit Das, Rangan L	Potential bio resource from North East India for Customisation of Sanitary Napkin	Recycle 2018, International Conference on Waste Management, IIT Guwahati	2018
J. Hazarika, A. N. Srivastava, M. Khwairakpam, A. S. Kalamdhad	Amendment- a potential way to biodegrade recalcitrant carbon-rich substrates	Recycle- 2018 International Conference on Waste Management, IIT Guwahati	2018
B. Saha, H. Kauser, M. Khwairakpam, A. S. Kalamdhad	Anaerobic digestion and composting – are the alternative options for terrestrial weed management – a review.	Recycle- 2018 International Conference on Waste Management, IIT Guwahati	2018
P. Mazumder, A. S. Kalamdhad, M. Khwairakpam	Simultaneous removal of tylosin and p-cresol using composite alginate beads containing recycled MnO ₂ and activated carbon	Recycle- 2018 International Conference on Waste Management, IIT Guwahati	2018
B. Saha, A. S. Kalamdhad, M. Khwairakpam	Effect of electrohydrolysis on parthenium hysterophorus to enhance the biogas production	Recycle- 2018 International Conference on Waste Management, IIT Guwahati	2018
Bhaskar Kalita, Bhaskar Das, Sanjukta Patra	Sustainable agricultural waste utilization promising rural entrepreneurship in North East India	Recycle- 2018 Waste Management Research Group (WMRG), IIT Guwahati	2018
Bhaskar Kalita, Sanjukta Patra	Effective utilization of agricultural waste towards promotion of rural entrepreneurship: a critical study	Research Conclave-2018	2018
J. Hazarika, A. N. Srivastava, M. Khwairakpam, A. S. Kalamdhad	Transformation of an industrial and municipal waste composite into a high value soil ameliorator	Research Conclave-2018	2018
H. Kauser, M. Khwairakpam	A review on management of invasive terrestrial weeds and its utilization for agriculture purpose.	Research Conclave-2018	2018
Srimonti Dutta, Pranay Kumar Sarkar, Sashindra Kumar Kakoty	Elemental Composition and an Insight into the Magnetic Properties of Bell Metal Available in Sarthebari	Rural Technology Development and Delivery: RuTAG and its Synergy with other Initiatives	2018
Nilkamal Kalita, Sashindra Kumar Kakoty	Design and development of a hybrid cold storage system for rural areas.	Rural Technology Development and Delivery: RuTAG and its Synergy with other Initiatives	2018
P. Borah, S. Mitra	Ecological risk assessment of soil contamination by Cu, Mn and Zn around a municipal landfill area near Deepor Beel in Guwahati, Assam, India	Symposium on Recent Advancements in Environmental Research, IIT Guwahati	2017

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Biosciences and Bioengineering						
Pawan Kumar Maurya, Pranjal Chandra	Oxidative stress: Diagnostic methods and application in medical science	Springer Singapore	-	168	9789811047107	2017
Ajaikumar B. Kunnumakkara, Ganesan Padmavathi, Nand Kishor Roy	Fusion Genes and Cancer	World Scientific	-	432	9789813200937	2017
Ajaikumar B. Kunnumakkara Devivasha Bordoloi, Javadi Monisha	Cancer Cell Chemoresistance and Chemosensitization	World Scientific	-	684	9789813208568	2018
Pranjal Chandra, Yen Nee Tan, Surinder P. Singh	Next Generation Point-of-care Biomedical Sensors Technologies for Cancer Diagnosis	Springer Singapore	-	396	9789811047268	2017
Pradeep Kumar, Jayanta Kumar Patra, Pranjal Chandra	Advances in Microbial Biotechnology: Current Trends and Future Prospects	CRC Press, USA	-	650	9781351248914	2018
Chemical Engineering						
Mihir Kumar Purkait, Manish Kumar Sinha, Piya Mondal, Randeep Singh	Stimuli Responsive Polymeric Membranes	Elsevier	-	-	9780128139615	2018
Sourav Mondal, Mihir Kumar Purkait, Sirshendu De	Advances in Dye Removal Technologies	Springer	-	-	9789811062919	2018
Kaustubha Mohanty, Mihir Kumar. Purkait	Membrane Technologies and Applications	CRC Press (Taylor & Francis)	-	-	9781439805268	2018
Mihir Kumar. Purkait, Randeep Singh	Membrane Technology in Separation Science	CRC Press (Taylor & Francis)	-	-	9781138626263	2017
Chandan. Das, Kibrom Alebel Gebre	Fundamentals of Polymeric Membrane Synthesis, Modification and Applications: Electro-spun and Phase-inverted Membranes	CRC Press (Taylor & Francis)	-	-	CAT# K377129	2017
Vimal Katiyar	Bio-based Plastics for Food Packaging Applications	Smithers Pira (UK)	-	276	9781910242582	2017
Subrata Kumar Majumder	Hydrodynamics and mass transfer in down flow slurry bubble columns	Apple Academic Press and CRC Press	-	-	-	2017
Santanu De, Avinash Kumar Agarwal, V. S. Moholkar, Bhaskar Thallada	Coal and Biomass Gasification Recent Advances and Future Challenges	Springer, Singapore	-	521	9789811073342	2018

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Tamal Banerjee, Anand Bharti, DebashisKundu, Dharamashi Rabari	Phase Equilibria in Ionic Liquid Facilitated Liquid–Liquid Extractions	CRC Press	-	-	9781498769488	2017
Civil Engineering						
Bharati Brahmacharimayum, Pranab Kumar Ghosh	Bioreactor System for Bioreduction of Sulfate Rich Wastewater	Lambert Academic Publishing	-	-	9786202075619	2017
A. Murali Krishna	Geotechnics for Natural and Engineered Sustainable Technologies	GeoNEst	-	-	9789811077210	2018
Design						
B. Finessi, A. Shende	20 anni di nuova creativita=Salone satellite: 20 years of new creativity	Corraini edizioni, Mantova, Italy	1	249	9788875706425	2017
Electronics and Electrical Engineering						
Rishikesh Kulkarni, Pramod Rastogi	Single and Multicomponent Digital Optical Signal Analysis- Estimation of phase and its derivatives	IOP science	-	214	9780750314695	2017
R. S. Kshetrimayum	Fundamentals of MIMO Wireless Communications	Cambridge University Press	-	348	9781108415699	2017
B. Kumbhani, R. S. Kshetrimayum	MIMO Wireless Communications over Generalized Fading Channels	CRC Press	-	268	9781138033009	2017
Humanities and Social Sciences						
Mithilesh Kumar Jha	Language Politics and Public Sphere in North India: Making of the Maithili Movement	Oxford University Press	-	-	9780199479344	2017
Mathematics						
D. Kundu, A. Ganguly	Analysis of Step-stress Models: Existing Results and Recent Developments	Elsevier/Academic Press, London, United Kingdom	-	186	eBook ISBN: 9780081012406 Paperback ISBN: 9780128097137	2017
Mechanical Engineering						
R. Tiwari	Rotor Systems: Analysis and Identification	CRC	1	1089	1138036285	2017
S. S. Pande, U. S. Dixit	Precision Product-Process Design and Optimization: Select Papers from AIMTDR 2016	Springer, Singapore	-	434	9789811087677	2018
U. S. Dixit, R. Kant	Simulations for Design and Manufacturing: Select Papers from AIMTDR 2016	Springer, Singapore	-	292	9789811085178	2018

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Biosciences and Bioengineering							
D. Bordoloi, B. L. Sailo, N. Manteghi, G. Padmavathi, A. B. Kunnumakkara	Introduction and Basic Concepts of Cancer	Cancer cell chemoresistance and chemosensitization	World Scientific	-	1-14	9789813208568	2018
J. Monisha, A. Jaiswal, K. Banik, C. Harsha, A. K. Singh, D. Bordoloi, A. B. Kunnumakkara	Cancer Cell Chemoresistance: A Prime Obstacle in Cancer Therapy	Cancer cell chemoresistance and chemosensitization	World Scientific	-	15-50	9789813208568	2018
N. K. Roy, A. Sharma, A. K. Singh, D. Bordoloi, B. L. Sailo, J. Monisha, A. B. Kunnumakkara	Bladder Cancer: Chemoresistance and Chemosensitization,	Cancer cell chemoresistance and chemosensitization	World Scientific	-	51-80	9789813208568	2018
G. Padmavathi, D. Bordoloi, K. Banik, J. Monisha, A. K. Singh, A. B. Kunnumakkara	Mechanism of Chemoresistance in Bone Cancer and Different Chemosensitization Approaches	Cancer cell chemoresistance and chemosensitization	World Scientific	-	81-106	9789813208568	2018
A. D. Khwairakpam, J. Monisha, K. Banik, C. Harsha, A. Sharma, D. Bordoloi, A. B. Kunnumakkara	Chemoresistance in Brain Cancer and Different Chemosensitization Approaches	Cancer cell chemoresistance and chemosensitization	World Scientific	-	107-128	9789813208568	2018
K. Banik, B. L. Sailo, K. K. Thakur, A. Jaiswal, J. Monisha, D. Bordoloi, A. B. Kunnumakkara	Potential of Different Chemosensitizers to Overcome Chemoresistance in Cervical Cancer	Cancer cell chemoresistance and chemosensitization	World Scientific	-	163-180	9789813208568	2018
A. K. Singh, J. Monisha, K. Banik, C. Harsha, A. D. Khwairakpam, D. Bordoloi, A. B. Kunnumakkara	Cancer Cell Chemoresistance and Chemosensitization in Endometrial Cancer	Cancer cell chemoresistance and chemosensitization	World Scientific	-	227-240	9789813208568	2018
D. Bordoloi, K. Banik, A. D. Khwairakpam, A. Sharma, B. L. Sailo, J. Monisha, A. B. Kunnumakkara	Different Approaches to Overcome Chemoresistance in Esophageal Cancer	Cancer cell chemoresistance and chemosensitization	World Scientific	-	241-266	9789813208568	2018
C. Harsha, D. Bordoloi, J. Prakash, N. Manteghi, G. Padmavathi, J. Monisha, A. B. Kunnumakkara	Different Chemosensitization Approaches in Gastric Cancer	Cancer cell chemoresistance and chemosensitization	World Scientific	-	267-320	9789813208568	2018

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A. K. Singh, N. K. Roy, A. Anip, K. Banik, J. Monisha, D. Bordoloi, A. B. Kunnumakkara	Different Methods to Inhibit Chemosresistance in Hepatocellular Carcinoma	Cancer cell chemoresistance and chemosensitization	World Scientific	-	373-398	9789813208568	2018
K. K. Thakur, D. Bordoloi, J. Prakash, J. Monisha, N. K. Roy, A. B. Kunnumakkara	Different Chemosensitization Approaches for the Effective Management of HNSCC	Cancer cell chemoresistance and chemosensitization	World Scientific	-	399-424	9789813208568	2018
J. Monisha, N. K. Roy, A. Sharma, K. Banik, G. Padmavathi, D. Bordoloi, A. B. Kunnumakkara	Chemoresistance and Chemosensitization in Melanoma	Cancer cell chemoresistance and chemosensitization	World Scientific	-	479-528	9789813208568	2018
C. Harsha, K. K. Thakur, A. Sharma, N. K. Roy, A. D. Khwairakpam, D. Bordoloi, A. B. Kunnumakkara	Strategies to Overcome Chemoresistance in Ovarian Cancer	Cancer cell chemoresistance and chemosensitization	World Scientific	-	529-556	9789813208568	2018
B. L. Sailo, J. Monisha, A. Jaiswal, J. Prakash, N. K. Roy, K. K. Thakur, K. Banik, D. Bordoloi, A. B. Kunnumakkara	Molecular Alterations Involved in Pancreatic Cancer Chemoresistance and Chemosensitization Strategies	Cancer cell chemoresistance and chemosensitization	World Scientific	-	557-582	9789813208568	2018
G. Padmavathi, J. Monisha, K. Banik, K. K. Thakur, C. Harsha, D. Bordoloi, A. B. Kunnumakkara	Different Chemosensitization Approaches to Overcome Chemoresistance in Prostate Cancer	Cancer cell chemoresistance and chemosensitization	World Scientific	-	583-614	9789813208568	2018
B. L. Sailo, D. Bordoloi, K. Banik, A. D. Khwairakpam, N. K. Roy, J. Prakash A. B. Kunnumakkara	Therapeutic Strategies for Chemosensitization of Renal Cancer	Cancer cell chemoresistance and chemosensitization	World Scientific	-	615-640	9789813208568	2018
G. Padmavathi, D. Bordoloi, K. Banik, A. B. Kunnumakkara	Cancer biomarkers: Important tools for cancer diagnosis and prognosis	Next Generation Point-of-care Biomedical Sensors Technologies for Cancer Diagnosis	Springer Singapore	-	1-29	-	2017
S. Gopi, J. Jacob, K. Varma, A. Amalraj, T. R. Sreeraj, A. B. Kunnumakkara, C. Divya	Natural sports supplement formulation for physical endurance: a randomized, double-blind, placebo-controlled study	Sport Sciences for Health	-	1	183-194	-	2017

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N. K. Roy, D. Bordoloi, J. Monisha, A. Anip, G. Padmavathi, AB Kunnumakkara	Cancer- an overview and molecular alterations in cancer	Fusion genes and cancer	World Scientific	-	1-15	9789813200937	2017
G. Padmavathi, N. K. Roy, D. Bordoloi, J. Monisha, A. B. Kunnumakkara	Basic concepts of fusion genes and their classification	Fusion genes and cancer	World Scientific	-	17-58	9789813200937	2017
N. K. Roy, G. Padmavathi, D. Bordoloi, A. B. Kunnumakkara	Techniques available to identify novel fusion genes and to detect known fusion genes	Fusion genes and cancer	World Scientific	-	59-79	9789813200937	2017
G. Padmavathi, K. K. Thakur, A. Anip, D. Bordoloi, A. B. Kunnumakkara	The receptor tyrosine kinase ALK; its fusion partners and their implication in various cancers	Fusion genes and cancer	World Scientific	-	81-109	9789813200937	2017
G. Padmavathi, K. Banik, N. K. Roy, J. Monisha, A. B. Kunnumakkara	Role of BCR-ABL fusion kinase in the development of leukemia	Fusion genes and cancer	World Scientific	-	111-127	9789813200937	2017
G. Padmavathi, D. Bordoloi, K. Banik, A. B. Kunnumakkara	BRD4-NUT fusion oncoprotein and its significance in the initiation and progression of NUT midline carcinoma (NMC)	Fusion genes and cancer	World Scientific	-	129-135	9789813200937	2017
G. Padmavathi, C. Harsha, D. Bordoloi, K. K. Thakur, A. B. Kunnumakkara	Importance of CBFβ-MYH11- a chimeric transcriptional regulator in leukemia	Fusion genes and cancer	World Scientific	-	137-146	9789813200937	2017
G. Padmavathi, J. Monisha, K. Banik, C. Harsha, D. Bordoloi, A. B. Kunnumakkara	Rearrangements involving ETS family of genes and their role in different cancers	Fusion genes and cancer	World Scientific	-	147-162	9789813200937	2017
G. Padmavathi, D. Bordoloi, A. Anip, K. K. Thakur, A. B. Kunnumakkara	Translocation of FET family members with various partner genes and their role in cancer development	Fusion genes and cancer	World Scientific	-	163-188	9789813200937	2017
G. Padmavathi, J. Monisha, C. Harsha, A. B. Kunnumakkara	Translocations of FGF and FGFR proteins and their effect in cancer	Fusion genes and cancer	World Scientific	-	189-199	9789813200937	2017

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G. Padmavathi, K. Banik, K. K. Thakur, A. B. Kunnumakkara	IG/MYC and its implication in cancer	Fusion genes and cancer	World Scientific	-	201-208	9789813200937	2017
G. Padmavathi, K. Banik, D. Bordoloi, C. Harsha, A. B. Kunnumakkara	Chimeric RAF kinases in the development of cancer	Fusion genes and cancer	World Scientific	-	209-220	9789813200937	2017
G. Padmavathi, C. Harsha, D. Bordoloi, K. Banik, A. B. Kunnumakkara	Mucoepidermoid carcinoma (MEC) and associated MAML2 fusion genes	Fusion genes and cancer	World Scientific	-	221-230	9789813200937	2017
G. Padmavathi, C. Harsha, A. B. Kunnumakkara	Mixed Lineage Leukemia/AF9 fusion and associated leukemia	Fusion genes and cancer	World Scientific	-	231-243	9789813200937	2017
G. Padmavathi, K. K. Thakur, A. B. Kunnumakkara	MYB-NFIB fusion gene- hallmark of adenoid cystic carcinoma (ACC)	Fusion genes and cancer	World Scientific	-	245-251	9789813200937	2017
G. Padmavathi, K. K. Thakur, A. B. Kunnumakkara	Translocations involving PAX family genes and their effect in cancer	Fusion genes and cancer	World Scientific	-	253-270	9789813200937	2017
G. Padmavathi, J. Monisha, A. Anip, K. K. Thakur, A. B. Kunnumakkara	Retinoic acid receptor alpha (RAR?) fusion genes in leukemia	Fusion genes and cancer	World Scientific	-	271-285	9789813200937	2017
G. Padmavathi, D. Bordoloi, A. Anip, C. Harsha, A. B. Kunnumakkara	RET/PTC translocations and thyroid malignancies	Fusion genes and cancer	World Scientific	-	287-296	9789813200937	2017
G. Padmavathi, J. Monisha, K. Banik, C. Harsha, D. Bordoloi, A. B. Kunnumakkara	RUNX1 or AML1 fusion genes in leukemia and other cancers	Fusion genes and cancer	World Scientific	-	297-313	9789813200937	2017
G. Padmavathi, D. Bordoloi, J. Monisha, N. K. Roy, C. Harsha, A. B. Kunnumakkara	Other fusion genes responsible for the development of solid and hematological tumors	Fusion genes and cancer	World Scientific	-	315-348	9789813200937	2017
N. K. Roy, D. Bordoloi, G. Padmavathi, A. B. Kunnumakkara	Targeting fusion genes for cancer therapy	Fusion genes and cancer	World Scientific	-	349-371	9789813200937	2017

Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Volume	Page	ISBN	Year
Abshar Hasan, Lalit M. Pandey	Self-assembled monolayers in biomaterials	Nanobiomaterials Nanostructured Materials for Biomedical Applications	Elsevier	1 st Edition	137-178	eBook ISBN: 978008100725 Hardcover ISBN: 9780081007167	2017
G. Chhabra, N. Chandra, R. Swaminathan	Osmolytes: Key players in regulating protein aggregation	Cellular Osmolytes: From Chaperoning Protein Folding to Clinical Perspectives	Springer Singapore	-	97-119	9789811037078	2017
Surajbhan Sevda, Pranab Jyoti Sarma, Kaustubha Mohanty, T. R. Sreekrishnan, Deepak Pant	Microbial Fuel Cell Technology for bioelectricity Generation from Wastewaters	Waste to wealth	Springer -	-	237-258	9789811074318	2017
S. Kumar, A. Dey, Y. Y. Yuan, L. Sahoo	RNA Interference: for improving trait and disease management in plants	"Biofuels: Greenhouse gas mitigation and global warming-Next generation biofuels and role of Biotechnology"	Springer	In press	-	-	-
S. Ojha, D. Singh, A. Sett, H. Chetia, D Kabiraj, U. Bora	Nanotechnology in Crop Protection	Nanomaterials in Plants, Algae and Micro-organism: Concepts and Controversies	Academic Press	1	345-390	9780128116463	2018
Nandana Bhardwaj, Dimple Chouhan, Biman B. Mandal	3D functional scaffolds for skin tissue engineering	Functional Three-Dimensional Tissue Engineering Scaffolds: Materials, Technologies and Applications	Woodhead Publisher	-	-	9780081009796	2017
Nandana Bhardwaj, Dimple Chouhan, Biman B. Mandal	3D functional scaffolds for skin tissue engineering	Functional 3D tissue engineering scaffolds	Woodhead Publisher (Elsevier), USA	Edited by Y. Deng and J. Kuiper.	345-365	9780081009796	2018
P. Bhattacharjee, P Gupta, M. J. Christakiran, S. K. Nandi, Biman B. Mandal	Silk-based matrices for bone tissue engineering applications	Nanostructures for the engineering of cells, tissues, and organs	Elsevier, USA	Editors: Alexandru Grumezescu	439-472	9780128136652	2018

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Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Volume	Page	ISBN	Year
Yogendra Pratap Singh, Shreya Mehrotra, Jadi Praveen Kumar, Bibhas Kumar Bhunia, Nandana Bhardwaj, Biman B. Mandal	Tissue Engineering Therapies for Ocular Regeneration.	Biomaterials & Nanotechnology for Tissue Engineering"	CRC Press (Taylor and Francis Group)	Edited by S. Swaminathan, K. Uma Maheswari, S. Anuradha	173-210	9781498743730	2017
Shweta Singh, Arabinda Ghosh, Arun Goyal	Manno-oligosaccharides as prebiotic- valued products from agro-waste.	Biosynthetic Technology and Environmental Challenges: Energy, Environment, and Sustainability	Springer Book Series by Springer Nature	-	205-221	9789811074332	2017
Ritesh S. Malani, Sohan Singh, Arun Goyal, Vijayanand S. Moholkar	Ultrasound-assisted biodiesel production using KI-impregnated zinc oxide (ZnO) as heterogeneous catalyst: a mechanistic approach	Recent Advances in Bioenergy Research	Springer	-	67-81	-	2018
Kuldeep Mahato, Suveen Kumar, Ananya Srivastava, Pawan K. Maurya, Renu Singh, Pranjal Chandra	Electrochemical Immunosensors: Fundamentals and Applications in Clinical Diagnostics	Handbook of Immunoassay Technologies	Academic Press	-	359-414	9780128117941	2018
Kuldeep Mahato, Anupriya Baranwal, Ananya Srivastava, Pawan Kumar Maurya, Pranjal Chandra	Smart Materials for Biosensing Applications	Techno-Societal 2016, International Conference on Advanced Technologies for Societal Applications	Springer, Cham	-	421-431	9783319535562	2018
Anupriya Baranwal, Ananya Srivastava, Pranjal Chandra	A Systematic Study on Phytosynthesized Silver Nanoparticles and Their Antimicrobial Mode of Action	Advances in Microbial Biotechnology Current Trends and Future Prospects	CRC Press, USA	-	-	9781351248914	2018
N. N. Deshavath, S. K. Sahoo, M. M. Panda, S. Mahanta, D. S. N. Goutham, V. V. Goud, V. V. Dasu, Annapurna Jetty	The Cost Effective Stirred Tank Reactor for Cellulase Production from Alkaline Pretreated Agriculture Waste Biomass/ Utilization and Management of Bioresources	N. N. Deshavath, S. K. Sahoo , M. M. Panda, S. Mahanta, D. S. N. Goutham, V. V. Goud, V. V. Dasu, Annapurna jetty	Springer	-	-	9789811053498	-

Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Volume	Page	ISBN	Year
Narendra Naik Deshavath, Bijayeeni Singh Deo, Jyothika Boddu, Komali vykuntam, Vaibhav. V Goud, V. Venkata Dasu	Dilute acid pretreatment efficiency on various solid loadings and effect of different neutralizing agents on xylulosic ethanol production	Narendra Naik Deshavath, Bijayeeni Singh Deo, Jyothika Boddu, Komali vykuntam, Vaibhav. V Goud, V. Venkata Dasu	Springer	-	433-453	-	-
Ashish A. Prabhu, Sushma Chityala, Dharanidaran Jayachandran, Narendra Naik, Veeranki Venkata Dasu	Rhizoremediation of Environmental Contaminants Using Microbial Communities/Plant-Microbe Interactions in Agro-Ecological Perspectives	Ashish A. Prabhu, Sushma Chityala, Dharanidaran Jayachandran, Narendra Naik, Veeranki Venkata Dasu	Elsiveier	-	181-200	9789811065934	-
K. Hegde, A. Prabhu, S. J. Sarma, S. K. Brar, V. Venkata Dasu	Potential Applications of Renewable Itaconic Acid for the Synthesis of 3-Methyltetrahydrofuran	K Hegde, A Prabhu, SJ Sarma, SK Brar, V Venkata Dasu	Springer	-	521-542	9789811065934	2017
Chemical Engineering							
Kulbhushan Samal, Chandan Das, Kaustubha Mohanty	Adsorption-membrane filtration hybrid process in wastewater treatment in Membrane Technology: Sustainable Solutions in Water, Health, Energy and Environmental Sectors	-	CRC Press (Taylor & Francis)	-	-	9781138095427	2017
A. B. Das, V. V. Goud, C. Das	Phenolic Compounds as Functional Ingredients in Beverages in Emerging Trends and Developments in Beverage Science	-	Elsevier	XIV	-	-	2017
Prodyut Dhar, Akhilesh Kumar Paul, Arvind Gupta, Rahul Patwa, Vimal Katiyar	Advances Green Composites	Green Biocomposites Films with Excellent Barrier Properties	Scrivener Publisher and John Wiley and Sons	-	-	-	2017
Tabli Ghosh, Vimal Katiyar	A Green Micro and Nanocomposites for Future	Green Composites based on Aliphatic-Aromatic Polyesters	Pan Stanford publishers	-	-	-	2017
Neha Mulchandani, Arbind Prasad, and Vimal Katiyar	Volume 3: Resorbable Polymer Matrices for the multi-volume set entitled	Resorbable Polymers in Bone Repair and Regeneration	Elsevier publishers	-	-	-	2017

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Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Volume	Page	ISBN	Year
Kiran Kumar Gali, Purabi Bhagabati, Vimal Katiyar	Bio-based Plastics for Food Packaging Applications	Sustainable Polymers for Food Packaging: An Introduction	Smithers Pira	-	-	9781910242582	2017
Umesh Bhardwaj, Purabi Bhagabati, Vimal Katiyar	Bio-based Plastics for Food Packaging Applications	Biobased and Biodegradable Polymers for Food Packaging: Commercial Status	Smithers Pira	-	-	9781910242582	2017
Akhilesh Kumar Pal, Nee-lima Tripathi, Rahul Patwa, Tabli Ghosh, Prodyut Dhar, Medha Mili, Vimal Katiyar	Bio-based Plastics for Food Packaging Applications	Bio-based sustainable polymers for Food Packaging applications	Smithers Pira	-	-	9781910242582	2017
Arvind Gupta, Medha Mili, Tabli Ghosh, Vimal Katiyar	Bio-based Plastics for Food Packaging Applications	Polylactic Acid: Potential Bio-based and Biodegradable Polymer use in Food Packaging	Smithers Pira	-	-	9781910242582	2017
Prodyut Dhar, Vimal Katiyar	Bio-based Plastics for Food Packaging Applications	Polyhydroxyalkanoates: Microbially derived Biodegradable Polymer for Food Packaging Applications	Smithers Pira	-	-	9781910242582	2017
Surendra Singh, Tabli Ghosh, Vimal Katiyar	Bio-based Plastics for Food Packaging Applications	General Materials Properties Required for Food-Packaging Applications	Smithers Pira	-	-	9781910242582	2017
Narendren Soundarajan, Shasanka Sekhar Borkotoky, Vimal Katiyar	Bio-based Plastics for Food Packaging Applications	Up to date Advances of Biobased and Biodegradable Polymers in Food Packaging	Smithers Pira	-	-	9781910242582	2017
Siddharth Mohan Bhasney, Prodyut Dhar, Vimal Katiyar	Bio-based Plastics for Food Packaging Applications	Polymer Blends for Sustainable Food Packaging	Smithers Pira	-	-	9781910242582	2017
Narendren Soundarajan, Vimal Katiyar	Bio-based Plastics for Food Packaging Applications	Bio-based Biodegradable Polymers in Food Packaging: Regulations and Legislations	Smithers Pira	-	-	9781910242582	2017
Tabli Ghosh, Vimal Katiyar	Bio-based Plastics for Food Packaging Applications	Edible Polymer based Sustainable Food Packaging	Smithers Pira	-	-	9781910242582	2017
Naba Kumar Kalita, Melakuu Tesfaye, Purabi Bhagabati, Vimal Katiyar	Bio-based Plastics for Food Packaging Applications	Trends of end-of-life Options: Recycling, Reusing and Composting of Waste Food Packaging	Smithers Pira	-	-	9781910242582	2017

Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Volume	Page	ISBN	Year
Gourhari Chakraborty, Purabi Bhagabati, Vimal Katiyar	Bio-based Plastics for Food Packaging Applications	Authors' View point on the developments of biodegradable polymers to improve their versatility in food packaging	Smithers Pira	-	-	9781910242582	2017
Prodyut Dhar, Chethana Mudenur, Vimal Katiyar	Encyclopedia Polymer Applications	Cellulose Nanocrystals: Food Packaging	Taylor and Francis	-	-	-	2017
Debarshi Mallick, Buljit Buragohain, Pinakeswar Mahanta, Vijayanand S. Moholkar	Coal and Biomass Gasification Recent Advances and Future Challenges	Gasification of Mixed Biomass: Analysis Using Equilibrium, Semi-equilibrium, and Kinetic Models.	Spinger, Singapore	-	223-241	9789811073342	2018
Debarshi Mallick, Pinakeswar Mahanta, Vijayanand S. Moholkar	Coal and Biomass Gasification Recent Advances and Future Challenges	Synergistic Effects in Gasification of Coal/Biomass Blends: Analysis and Review.	Spinger, Singapore	-	473-497	9789811073342	2018
Tamal Banerjee, Sushma P. Ijardar, Arvind Kumar, DebashisKundu, Naved I. Malek	Application of Thermodynamic Model for Prediction of Experimental Solubility of Alkali Metal Halides in Aqueous Organic Solvent in book	Theoretical Models and Experimental Approaches in Physical Chemistry Research Methodology and Practical Methods"	Apple Academic Press	-		9781771886321	-
Jin-Goo Park, Nagarjuna Reddy Paluvai, R. Prasanna Venkatesh	Handbook of Silicon wafer cleaning technology	Metal surface chemical composition and morphology	K. A. Reinhardt and W. Kern, 3rd Edition	-	579-619	-	2018
Chemistry							
A. S.Achalkumar, Manoj Mathews, Quan Li	Stimuli-Directed Self-Organized One-Dimensional Organic Semiconducting Nanostructures for Optoelectronic Applications	Functional Organic and Hybrid nanostructured Materials	Wiley VCH Publications	-	247-305	9783527342549	2017
Civil Engineering							
Arup Kumar Sarma	Sustainable Holistic Water Resources Management in a Changing Climate	Water Resources Management in North East India	-	-	-	9788183602532	2017
Bandita Barman, Bimlesh Kumar, Arup Kumar Sarma	Experimental Study on Mining Pit Migration	Water Science and Technology Library book series	-	84	-	9783319551241	2017

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Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Volume	Page	ISBN	Year
A. Murali Krishna	Feasibility Study of Retaining Walls Backfilled with Sand-Tire Chip Mixtures	Geoenvironmental Practices and Sustainability	Springer Nature Singapore Pte. Ltd.	25	-	978-981-10-4077-1_25	-
A. Murali Krishna	Effect of Backfill Reinforcement on Retaining Wall Under Dynamic Loading	Geotechnical Hazards from Large Earthquakes and Heavy Rainfalls	Springer Nature Singapore Pte. Ltd		535-544	-	-
A. Mishra, A. Deshpande, Bimlesh Kumar	Performance Appraisal of Friction Factor Estimators	Hydrologic Modeling. Water Science and Technology Library	Springer, Singapore.	81	-	-	-
Anurag Sharma and Dr. Bimlesh Kumar	Higher Order Statistics of Reynolds Shear Stress in Nonuniform Sand Bed Channel	Free Surface Flows and Transport Processes	Springer, Singapore.	-	-	9783319709147	-
Design							
S. Karmakar, R. Solomon	Ergonomic Evaluations and Design Interventions for Shop-Floors Dealing with Chemical Conversion Coatings: Case Study from India.	Advances in Ergonomics in Design Editors: Rebelo F. and Soares M.	Springer, Cham.	588	857-868	9783319605814	2017
I. Verma, S. Nath, S. Karmakar	Research in Driver-Vehicle Interaction: Indian Scenario	Ergonomics in Caring for People Editors: Ray G., Iqbal R., Ganguli A., Khanzode V.	Springer, Singapore	353	361	9789811049804	2018
A. Chowdhury, D. Chakrabarti, S. Karmakar	Anthropomorphic Televisions Are More Attractive: The Effect of Novelty	Ergonomics in Caring for People Editors: Ray G., Iqbal R., Ganguli A., Khanzode V.	Springer, Singapore	243	249	9789811049804	2018
C. Mondal, S. Karmakar	A Study Exploring the Facets of Visual Elements in Ethnic Products: Case Study of Sarees from West Bengal	Ergonomics in Caring for People Editors: Ray G., Iqbal R., Ganguli A., Khanzode V.	Springer, Singapore	821	831	9789811049804	2018
Electronics and Electrical Engineering							
Shubh Lakshmi, Sanjib Ganguly	Transition of power distribution system planning from passive to active networks: A state-of-the-art review and a new proposal	Sustainable Energy Technology and Policies: A Transformational Journey	Springer-Verlag	1	87-117	9789811071881	2018

Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Volume	Page	ISBN	Year
H. Chel, P. K. Bora	Image Registration in Ultra-sound-Assisted Brain Surgery	Biomedical Signal and Image Processing in Patient Care	IGI Global	-	123-144	101522528296	2017
Yuji Iwahori, Tomoya Suda, Kenji Funahashi, Hiroyasu Usami, Aili Wang	Shape Recovery of Polyp from Endoscope Image Using Blood Vessel Information	Computational Science/Intelligence and Applied Informatics, Springer	Springer-Verlag	-	165-184	-	2017
Tokiko Shiina, Yuji Iwahori, Yohei Takada, Boonserm Kijisirikul, M. K. Bhuyan	Reducing Misclassification of True Defects in Defect Classification of Electronic Board	Computer and Information Sciences, Springer	Springer-Verlag	-	77-92	-	2017
Humanities and Social Sciences							
M. K. Dutta	Irrigation in India: The Post-Green Revolution Experience, Challenges and Strategies	Indian Agriculture after the Green Revolution, Changes and Challenges	Routledge London and New York	-	96-111	9781138286290	2018
M. K. Dutta, Ira Das	Economic Performance of the North-Eastern Region in the Post-Liberalisation Period	Rethinking Economic Development in Northeast India: The Emerging Dynamics	Routledge	-	50-60	9781138201781	2017
Mithilesh Kumar Jha	Bihar Mei Bhashai Rajaniti: Maithili Bhasha Aur Andolan	BharatiyaBhashaLokaSarveshan: Bihar Kee Bhashayen, Volume-6, Part-1	Orient Blackswan	-	-	9789386689047	2017
Vishaka Gulati, Arundhuti Deka, Safa Fanain, Sumit Vij, Anamika Barua	Building Bridges through dialogue for the Brahmaputra River Basin	China and Transboundary Water Politics In Asia	Routledge	-	-	-	2018
K. Sarika, D. Hussain	Inhibitors of the Information Technology Success: Insights from Qualitative Investigation	Management Practices for the New Digital Economy	Bloomsbury Publishing Private Ltd., New Delhi	-	193-201	-	2018
Nirmala Devi, Rajshree Bedamatta	Factors Affecting Morbidity and Utilization of Healthcare Services: A Case Study of Nagaon District of Assam	Issues on Health and Healthcare in India: Focus on the North Eastern Region	Springer Nature Singapore Pte. Ltd.	-	-	9789811061035	2018
Rupan Boro, Rajshree Bedamatta	Can Horizontal Inequalities Explain Ethnic Conflicts? A Case Study of Bodoland Territorial Area Districts of Assam	Inequality, Poverty and Development in India: Focus on the North Eastern Region	Springer Nature Singapore Pte. Ltd.	-	-	9789811062735	2017

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Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Volume	Page	ISBN	Year
Deepankar Basu, Debarshi Das	Managing Food: India's Experience with the Public Distribution System	Farm to Fingers: The Culture and Politics of Food in Contemporary India, edited by: K Bhushi	Cambridge University Press	-	215-235	9781108416290	2018
S. Borbora, G. K. Sarma	Agricultural Credit in Assam: A review of recent Trends	Rethinking Economic Development in Northeast India: The Emerging Dynamics	Routledge, UK	-	228-257	978113803828	2017
B. Som	Language as a Part of a Human Cognitive Mechanism: The View from Cognitive Linguistics	Sudhir Mishra [ed]. Artificial Intelligence and Natural Language Processing	Cambridge Scholar Publishing	-	17-44	-	2018
S. Kaur, B. Som	Context Effects in Bilingual Language Processing	Psycholinguistics and Cognition in Language Processing	IGI Global	-	-	-	2018
R. Shukla, S. Mallick	Blending of practices: A study of biofuels complex in India	Biofuels and Bioenergy	Springer	-	229-239	9783319472577	2017
M. Kumari, S. Mallick	Debating the controversies: A study of agricultural innovation systems in India	Globalization and India's Innovation Systems: Towards Creative Destruction	Mahatma Gandhi University Press	-	129-135	9789380419350	2017
Anamitra Basu, Archana Barua	Constraints and Challenges to Social Science Research in North East India: A Review	Constraints and Challenges to Social Science Research in North East India	Regency Publishers, New Delhi	-	159-166	-	2017
Sukanya Sharma, Pankaj Singh, Momi Das	The Past and Present of the Pottery Craft of Assam	Rethinking the Past: A Tribute to Professor V. N. Misra, (S. G. Deo, Andre Baptista and Jayendra Joglekar Eds.)	Pune. ISPQS: www.manandenvironment.org	-	331-342	9788190833066	2017
N. Kipgen	Land Laws, Ownership and Tribal Identity: The Manipur Experience	Marginalities in India: Themes and Perspectives (Edited by Asmita Bhattacharya and Sudeep Basu)	Springer	-	111-126	-	2017
V. Arora, N. Kipgen	Demand for Homeland and Kuki ethnic-nationalism	Democratization in the Himalayas: Competing Interests, Conflict, and Negotiations (Edited by V. Arora and N. Jayaram)	Routledge	-	161-185	978113824428	2017

Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Volume	Page	ISBN	Year
Vipul Dutta	War and Indian military institutions: the emergence of the Indian Military Academy	Culture, Conflict and the Military in Colonial South Asia	Routledge	-	-	9781138106888	2018
Mechanical Engineering							
H. M. Sathisha, A. Dalal		An Unsteady Model to Study the Effects of Porosity and Temperature in All-Vanadium Redox Flow Battery with Mass Transfer and Ion Diffusion	Springer	2	379-396	9789811083921	2018
N. K. Mishra, P Muthukumar, Snehasish Panigrahy		A Review on Clean Combustion Within Porous Media	Springer Nature Singapore Pte. Ltd.	-	209-224	9789811071843	2018
P. S. Robi, Sukhomay Pal, Biswajit Parida		Recent Trends and Advances in Friction Stir Welding and Friction Stir Processing of Metals	CRC Press	-	715-751	9781138099265	2018
Devarshi Kashyap, Charan Mukundan, S. Kanagaraj		Manufacturing and characterization of shape memory polymers and composites	CRC press	-	43-73	9781498799300	2018
Kishor Kumar Gajrani, Mamilla Ravi Sankar		Encyclopedia of Renewable and Sustainable Materials	Elsevier	-	-	-	2018
Achinta Sarkar, Maryom Dabi, Ujjwal K. Saha		Supplementing the energy need of diesel engines in Indian transport and power sectors	Springer	-	26	9789811075087	2018
D. N. Basu, M. K. S. Sarkar	Supercritical Natural Circulation Loop: A Technology for Future Reactors	L. Chen, Y. Iwamoto (eds.) Advanced Applications of Supercritical Fluids in Energy Systems	IGI Global, Hershey PA, USA,	-	188-214	-	2017
Ogier Maitre, Frederic Kruger, Deepak Sharma, Stephane Querry, Nicolas Lachiche, Pierre Collet	Parallelizing Evolutionary Algorithms on GPGPU Cards with the EASEA Platform	Programming multi-core and many-core computing systems, edited by Sabri Pillana, Fatos Xhafa,	-	-	301-319	-	2017

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Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Volume	Page	ISBN	Year
Sachin Singh, M. Ravi San- kar, V. K. Jain, J. Ramkumar	Abrasive flow finishing process and Modeling	Nanofinishing Science and Technology: Basic and Ad- vanced Finishing and Polish- ing Processes, Edited by V. K. Jain,	CRC Press, Taylor and Francis group	-	75-110	9781315404097	2017
Deepak Mylavarapu, Manas Das, R. Ganesh Narayanan	Prediction of Temperature Evolu- tion During Self-Pierced Riveting of Sheets	Handbook of Research on Manufacturing Process Modeling and Optimization Strategies	IGI Global	-	381-298	9781522524410	-
D. N. Basu, M. K. S. Sarkar	Supercritical Natural Circulation Loop: A Technology for Future Reactors	L. Chen, Y. Iwamoto (eds.) Advanced Applications of Supercritical Fluids in Energy Systems	IGI Global, Her- shey PA, USA,	-	188-214	-	2017
Debaleena Chakraborty, D. Chakraborty, K. S. R. K. Murthy	Mode I SIF Determination of Orthotropic Laminates with Double-Ended Cracks Using a Single-Strain Gage	Advances in Structural Integrity	Springer	-	461-468	9789811071973	2017
Centre for Energy							
Pankaj Kalita, Debarshi Baruah	Investigation of Biomass Gasifier Product Gas Composition and its Characterization	Coal and Biomass Gasifica- tion	Springer, Singa- pore	-	115-149	9789811073342	2018
Pankaj Kalita, Munu Bo- rah, Rupam Kataki, Dipti Yadav, Dipam Patowary, Rupam Patowary	Biogas and Fuel Cell as Vehicular Fuel in India	Sustainable Biofuels Devel- opment in India	Springer Interna- tional Publishing	-	87-133	9783319502175	2017
Centre for the Environment							
Deepmoni Deka, Saprativ P. Das, Rajeev Ravindran, Mohammad Jawed, Arun Goyal	Water Hyacinth as a Potential Source of Biofuel for Sustainable Development/ Urban Ecol- ogy, Water Quality and Climate Change	Water Science and Technol- ogy by Springer Book Series	Springer	84	351-363	9783319744940	2018

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Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Volume	Page	ISBN	Year
N. N. Deshavath, S. K. Sahoo, M. M. Panda, S. Mahanta, D. S. N. Goutham, V. V. Goud, V. V. Dasu, Annapurna Jetty	The Cost Effective Stirred Tank Reactor for Cellulase Production from Alkaline Pretreated Agriculture Waste Biomass/ Utilization and Management of Bioresources	Utilization and Management of Bioresources	Springer	-	25-35	9789811053498	2018
Ashish A. Prabhu, Sushma Chityala, Dharanidaran Jayachandran, Narendra Naik, Veeranki Venkata Dasu	Rhizoremediation of Environmental Contaminants Using Microbial Communities/Plant-Microbe Interactions in Agro-Ecological Perspectives	Plant-Microbe Interactions in Agro-Ecological Perspectives	Springer	2	433-453	9789811065934	2017
Poulami Datta, Sakshi Tiwari, L. M. Pandey	Bioethanol Production from Waste Breads Using <i>Saccharomyces cerevisiae</i>	Utilization and Management of Bioresources, Springer Singapore	Proceedings of 6th IconSWM 2016	-	125-134	9789811053498	2017

DETAILS OF RESEARCH AND DEVELOPMENT PROJECTS

NEW RESEARCH PROJECTS

New Research projects received during the year 2017-2018 are given below:

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
Biosciences and Bioengineering						
1.	Mr. Jintu Dutta	Alleviation of boron deficiency in Indian mustard through genotype selection and transgenic strategies	IIS Bangalore	Prof. L. Sahoo (Mentor)	549045	Initially one year (extendable upto a maxm. of 5 years)
2.	Dr. Sanjeev Kumar; Mentor: Prof. Lingaraj Sahoo	Identification of novel and conserved microRNAs involved in drought stress regulation in mungbean	SERB	-	1920000	2 years
3.	Dr. Sunita Yadav; Mentor: Dr. V.K. Dubey & Dr. Manish Kumar	Recombinant hypothetical protein of Leishmania donovani: Immunobi-chemical Characterization as a Potential Vaccine against Visceral Leishmaniasis	SERB	-	1920000	2 years
4.	Dr. Dineshbabu Gnana-sekaran; Mentor: Dr. Debasish Das	Enhancing microalgal biomass productivity at higher CO ₂ concentrations and simultaneous carbon precipitation as mineral carbonates	SERB	-	1920000	2 years
5.	Dr. Avishek Dey; Mentor: Prof. Lingaraj Sahoo	Generation of aphid (Lipaphis erysimi Kalt) resistant marker-free transgenic mustard (Brassica juncea L.) through RNAi-mediated gene silencing	DST	-	9500000	5 years
6.	Dr. Vibin Ramakrishnan	Peptide based molecular constructs for tumor homing and small molecule delivery	BRNS	-	2789506	3 years

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
7.	Dr. Manish Kumar	Characterization of predicted novel extracellular proteins of pathogenic <i>Leptospira interrogans</i>	ICMR	Dr. Sachin Kumar	4192780	3 years
8.	Dr. Shankar Prasad Kanaujia	Structural and functional investigation of mammalian cell entry (MCE) proteins from human pathogens: development of structure-based lead molecules	SERB	-	4251000	3 years
9.	Prof. L. Sahoo	Biotechnological interventions for crop improvement	DBT	-	1790000	1 year
10.	Dr. Biman B. Mandal	Use of silk from northeast India for culture and transplantation of corneal endothelial cells	DBT	-	1820000	2 years
11.	Dr. Biman B. Mandal	Functional collagen nanoparticle impregnated silk nano-ceramic composite 3D matrices for flat bone regeneration	DBT	-	5809600	3 years
12.	Dr. Vibin Ramakrishnan	Design, Synthesis and Characterization of Metal Impregnating Nano-assemblies using Peptide Model Systems; Applications in heavy metal entrapment in North-East Region	DBT	-	15489200	3 years
13.	Dr. Shankar Prasad Kanaujia	Structural investigation of sugar ABC transporters in <i>Mycobacterium tuberculosis</i> and thermophiles: application to the development of drug carriers and biosensors	DBT	-	12638400	3 years
14.	Dr. Sachin Kumar	Improved classical swine fever virus diagnostics using Newcastle disease virus as a vector	DBT	-	840800	3 years
15.	Dr. A.B. Kunnumakkara	Development of novel Akt/m TOR inhibitors for oral cancer prevention and treatment	DBT	-	14936640	3 years
16.	Dr. A.B. Kunnumakkara	A comparative study of the population chronically exposed to arsenic in two different demographic regions of Eastern India: Identification of responsible genes and susceptible population	DBT	-	2688000	3 years
17.	Prof. Rakhi Chaturvedi	To impart quality education to girls in realm of science and engineering to inculcate scientific temperament	DST	-	1657900	1 year
18.	Dr. Selvaraju Narayanasamy	Sequestration of hexavalent chromium from simulated and electroplating effluent using novel lignocellulosic biosorbents	IITG	-	500000	2 years
19.	Dr. Souptick Chanda	Optimal design and development of proximal femoral locking plate	IITG	-	499885	2 years
20.	Dr. Ankita Gupta	Biochemical and biophysical studies of rRNA methyltransferase from <i>Helicobacter pylori</i>	DBT	Prof. Shankar P. Kanaujia (Mentor)	482000	2 years
Chemical Engineering						
21.	Dr. Anjireddy Bhavanam; Mentor: Dr. Nageswara Rao Peela	Potential reaction pathways and kinetics of catalytic co-pyrolysis of lignocellulosic biomass and waste plastics in producing value added products	SERB	-	1920000	3 years

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
22.	Dr. Tamal Banerjee	Ionic liquids and deep eutectic solvents as electrolytes for energy efficient electro-chemical double layer capacitor	ISRO	-	1800000	2 years
23.	Head of the Department, Chemical Engineering	Improvement of S&T Infrastructure in Universities and Higher Educational Institutes (FIST) Programme	DST	-	39000000	5 years
Chemistry						
24.	Dr. Krishna Pada Bhabak	Development of ROS sensitive turn-on fluorescent probes for targeted delivery of anti-cancer compounds	SERB	-	5304000	4 years
25.	Tariq Ahmad Shah; Mentor: Prof. T. Punniyamurthy	Study of Carbon-Carbon and Carbon-Heteroatom Bonds Formations via C-H Functionalization	SERB	-	1902473	
26.	Dr. Sreeparna Das; Mentor: Dr. Debasis Manna	Cancer immunotherapy: Mechanism based design of potent inhibitor for Indoleamine-2,3-dioxygenase 1	SERB	-	1920000	2 years
27.	Dr. Hemanta Kalita; Mentor: Dr. A. S. Achalkumar	Porphyrinoid based columnar liquid crystals for organic solar cells	SERB	-	1920000	2 years
28.	Dr. Sudhir Kumar Shoora; Mentor: Dr. Uttam Manna	Development of some novel chemical sensors	SERB	-	1920000	2 years
29.	Dr. Subhas Chandra Pan	Organocatalytic Asymmetric Reactions with 3-Carbomethoxy-Dihydro-2-Quinolones	CSIR	-	1100000	3 years
30.	Dr. Akshai Kumar Alape Seetharam	Fuel chemical synthesis via catalytic transformation of hydrocarbons using pincer-ligated complexes based on inexpensive transition metals	CSIR	-	600000	3 years
31.	Dr. A. K. Saikia	Diastereo- and Enantio-selective synthesis of oxygen, nitrogen and sulfur heterocyclic compounds	SERB	-	4949120	3 years
32.	Prof. M. Qureshi	Design and development of novel broad absorption semiconductor/oxides for efficient water splitting: Role of morphology and charge transfer amongst the composites	SERB	-	3910720	3 years
33.	Dr. Debasis Manna	Cancer Immunotherapy: Mechanism-Based Design of Potent Inhibitor for Indoleamine 2,3-Dioxygenase-1	SERB	-	5081960	3 years
34.	Dr. Uttam Manna	Bulk: Superhydrophobic polymer materials for controlled and tunable release of antimicrobial peptides" A novel material for generating antimicrobial material	DBT	-	4214000	3 years
35.	Dr. Debapratim Das	Peptide based semiconducting materials for organic-electronic devices	DST	-	1158750	3 years

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
Civil Engineering						
36.	Dr. Manish Kumar Goyal	An integral assessment of groundwater and surface water using stable isotopes of water	BRNS	-	1785650	3 years
37.	Dr. Amit B. Shelke	Development of Stiffened Honeycomb Composite Structure to Safeguard against Shock and Impact Loading	DRDO	-	3498000	2 years
38.	Prof. A. K. Sarma	Pilot project for integrated landuse planning and water resources management	GMDA, Govt of Assam	-	1278720	2 years
39.	Dr. Ajay Dashora	Risk assessment of moraine dammed glacier lakes due to climate change (IMPRINT)	MHRD	-	5959000	3 years
40.	Dr. A. Murali Krishna	Performance of Geogrid and Geocell Reinforced Pavements	NHAI	-	2784000	3 years
41.	Dr. Anjan Kumar S	Compatibility Assessment of Local Aggregates for Cold Mix Process	Om Infra-con Pvt. Ltd.	-	1382400	3 years
42.	Dr. Archana M Nair	Study on the reflectance and thermal emission spectral characteristics of Orthopyroxene bearing Granitic rocks for Terrestrial and Planetary Remote Sensing	SERB	-	6081000	3 years
43.	Dr. A. Murali Krishna	Comprehensive rainfall induced landslide hazard analysis of Sunsali and Noonmati hills in Guwahati region	DST	-	3109000	2 years
44.	Dr. Ajay Kalamdhad	Pilot scale studies on rotary drum composting and anaerobic biphased baffled reactor (ABBR) technology for biomethanation of industrial sludges and aquatic weeds	DST	-	10367832	3 years
Computer Science and Engineering						
45.	Dr. R. Inkulu	Approximate geodesic nearest neighbors and shortest paths	SERB	-	720000	3 years
46.	Dr. Amit Awekar	Algorithms for Graph Similarity Self Join	SERB	-	660000	2 years
47.	Dr. Chandan Karfa	Formal verification of optimizing transformations of programs	SERB	-	1770910	3 years
Design						
48.	Prof. P. Yammiyavar	Industrial Design Concept of e-mobility vehicle	NFTDC	-	500000	9 months
Electronics and Electrical Engineering						
49.	Dr. Mahima Arrawatia	Design of high efficiency power amplifier for 5G applications	SERB	-	4525040	3 years
50.	Dr. Satyam Agarwal	Wireless networking for sustainable rural connectivity	DST	-	3500000	5 years
51.	Dr. Mahima Arrawatia	Design of solid state microwave oven using gallium nitride power amplifier	IITG	-	500000	2 years

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
52.	Dr. Salil Kashyap	Analysis and design of wireless powered communication network using massive number of antennas at the base station	IITG	-	500000	2 years
53.	Dr. Debabrata Sikdar	Design of smart tunable plasmonic nanoparticle-based optical metade- vices	IITG	-	500000	2 years
Humanities and Social Sciences						
54.	Dr. Priyankoo Sarmah	Sociolinguistic Study of Phonetic Variations among the Clans and Khels of two Southern Angami villages	ICSSR	-	800000	18 months
55.	Dr. Rajshree Bedamatta	Assessment and review of MGNREGA as a social protection intervention in the Barak Valley region of Assam	UNICEF	-	996000	3 months
56.	Dr. Vipul Dutta	A Historical study of Civil-Military Relationship in north-eastern India: 1930-1950	IITG	-	500000	2 years
57.	Dr. Sukanya Sharma	Scientific analysis of pottery from selected archaeological sites of West Bengal	CAST	-	450000	1 year
Mathematics						
58.	Dr. Sneha Bala Sinha; Mentor: Dr. Rupam Barman	Post-Doctoral Work	SERB	-	1920000	2 years
59.	Dr. Zakir Ahmed; Men- tor: Dr. Rupam Barman	Post-Doctoral Work	SERB	-	1920000	2 years
60.	Dr. Sudarshan Kumar Kenettinkara	Numerical analysis and computational methods for hyperbolic conserva- tion laws	SERB	-	660000	2 years
Mechanical Engineering						
61.	Dr. V. N. Kulkarni	Compressible flow solver with immersed boundary approach	ISRO	-	1632000	1 year
62.	Prof. P. Muthukumar	Design, Development and Demonstration of Indigenous hydrogen stor- age and fuel cell system for mobile and stationary applications of 5 kW capacity	MHRD	-	5863680	3 years
63.	Prof. P. Muthukumar	Design and development of energy efficient and environment friendly LPG and kerosene cooking stoves with porous radiant burners for house- hold and large-scale cooking applications	MHRD	-	8100000	3 years
64.	Dr. S. Senthilvelan	Manufacturing Solutions for the Preparation of Siddha Medicines (Tradi- tional Medicines Originated from Tamilnadu)	MHRD	-	5798496	3 years
65.	Prof. P. Muthukumar	Development of High Temperature Thermal Energy Storage System for Solar Thermal Power Plant	DST	-	11546350	3 years
66.	Dr. R. Ganesh Narayanan	Forming of automotive materials at elevated temperature and selection of lubricants for sustainable manufacturing	DST	-	1111000	2 years

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
67.	Prof. Shyamanta Moni Hazarika	Understanding human intent through semantic perception for augmenting human machine interaction	IITG	-	495920	2 years
68.	Dr. Nelson Muthu	Manufacturing and testing of fibre reinforced composites	IITG	-	500000	2 years
69.	Dr. Arup Kumar Nandy	Amplitude formation in vector finite elements for electromagnetic wave propagation	IITG	-	500000	2 years
Physics						
70.	Dr. Koushik Saikia; Mentor: Prof. Perumal Alagarsamy	Development of novel hierarchical magnetic ferrite-semiconductor heterostructures for efficient photocatalytic application	SERB	-	1920000	2 years
71.	Dr. Amit Dutta Banik; Mentor: Dr. Arunansu Sil	Search for a common origin of matter antimatter asymmetry, neutrino mass and dark matter	SERB	-	1920000	2 years
72.	Dr. Tapobroto Bhanja; Mentor: Dr. Debaprasad Maity	Studies of Dark Matter	SERB	-	1920000	2 years
73.	Dr. Munu Borah; Mentor: Dr. Uday Maiti	Hetero-atom doped graphene for tunable platinum based catalytic nano-hybrid	SERB	-	1920000	2 years
74.	Dr. Anirban Biswas; Mentor: Dr. Debasish Borah	Theory and Phenomenology of Dark Matter beyond the thermal WIMP scenario and its possible connection to neutrino mass and leptogenesis	SERB	-	1920000	2 years
75.	Head of the Department, Physics	FIST Phase II	DST	-	44000000	5 years
76.	Dr. Sovan Chakraborty	Neutrino, supernova, stellar remnant, star formation	IITG	-	500000	2 years
Centre for Linguistic Science and Technology						
77.	Dr. Priyankoo Sarmah	Development of Speech Interface for Form-filling application (SiFA) in five Indian languages	MHRD	-	9120000	2 years
Centre for Energy						
78.	Dr. Lepakshi Barbora	Bioremediation and Bioconversion of waste with complex photosynthetic organisms and heterotrophs under aerobic and anaerobic condition with generation of bioenergy	DST	-	4543200	3 years
Centre for the Environment						
79.	Dr. Siddhartha Narayan Borah; Mentor: Prof. Kannan Pakshirajan	Microbial recovery and synthesis of elemental Selenium and Selenium based Nanomaterials from Wastewater for Biotechnological Applications	DBT	-	532000	2 years
80.	Dr. Jintu Dutta; Mentor: Prof. Utpal Bora	Assessment of variation in microbial communities driven by soil pH and isolation of culturable phosphate solubilizing actinobacteria	SERB	-	1920000	2 years

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
81.	Prof. Kannan Pakshirajan	A novel membrane assisted bioprocess for heavy metal removal and recovery as nano powders from acid mine drainage	CSIR	-	2246000	3 years
Centre for Nanotechnology						
82.	Dr.Kilingaru I Shivakumar; Mentor: Dr. Akshai Kumar Alape Seetharam	The Effect of Systematic Induction of Fluorine and Nitrogen on Semiconducting Property of Shape-Persistent Arylene-Ethynylene Macrocycles	SERB	-	1920000	2 years
83.	Dr. Satyapriya Bhandari; Mentor: Prof. Arun Chatopadhyay	Complexation on the surface of metal halide perovskite nanocrystals for application as energy materials	DST	-	9500000	5 years
84.	Dr. Dipankar Bandyopadhyay	Extreme Point of Care Diagnostics on a CD	MHRD	-	5035600	3 years
Centre for Rural Technology						
85.	Dr. Siddhartha Singha	Development of a process technology for production of functionally active fermented soy product	IITG	-	529000	2 years
86.	Dr. Meena Khwairakpam	Terrestrial weed management using different composting techniques	IITG	-	500000	2 years
87.	Prof. S. K. Kakoty	DONER/STINER/NEDFi	NEDFi	-	1125000	6 months
88.	Prof. S. K. Kakoty	DONER/STINER/NEHHDC	NEHHDC	-	3489000	6 months
89.	Prof. S. K. Kakoty	DONER/STINER/NERAMAC	NERAMAC	-	7800000	6 months
90.	Dr. Sudip Mitra	Genome and transcriptome sequencing of aromatic rices from North Eastern region	DBT	-	1743000	3 years
LIBRARY						
91.	Librarian, IITG	NDL-NE Regional Centre	MHRD (NDL, IITKGP will remit the grant)	-	200000 (for 1 year)	1 year
RESEARCH AND DEVELOPMENT						
92.	Dean of R&D	Programme support for research in Biological Sciences and Healthcare Engineering in North East Region	DBT	-	373528000	3 years
IITG						
93.	Dean of R&D	Establishment of Research Parks under the 'Start-up India Initiative in Higher Educational Institutions (SIIHEI)'	MHRD	-	750000000	3 years

Major Consultancy Projects Received During 2017-2018

Title	Principal Investigator	Clients
Ambient air and noise quality assessment	Prof. Sharad Gokhale	Topcem India
Analysis of Arsenic & Lead in water samples	Dr. Harsha Kota	Zoo Road Water supply, Guwahati Metropolitan Drinking Water & Sewage Board
Analysis of Iron, Fluoride and Turbidity in water samples	Dr. Harsha Kota	Central Public Works Department
Building intelligent speech analytic platform	Dr. Samudravijaya K	Kovid Analytics Science and Technology
CBR (soaked and unsoaked) along with OMC and MDD determination	Dr. Akhilesh Kumar Maurya	Headquarters, 764 Border Roads Task Force
Certification of GEO SPAR products	Dr. Adapa Murali Krishna	M/s Spar Geo Indra Pvt Ltd New Delhi
Characterization of borrowed soil to be used in construction work for ASM-SS-04 package under NER power System Improvement Project	Dr. A Murali Krishna	M/s Techno Electric & Engineering Co. Ltd
Charcterization of PEB structural membrane through investigation and testing	Dr. Arun Ch. Borsaikia	Assam State Agricultural Marketing Board, Ulubari, Assam
Charcterization of Rock samples for borehole 07 of Borpani Middle-I HEP on Borpani River in Karbi Anglong District Assam	Dr. Adapa Murali Krishna	Assam Power Project Development Co. Ltd
Classification of Excavated Samples	Dr. Baleshwar Singh	Site-In-charge, Bharat Electronics Limited, Shillong
Classification of Excavated Samples from Construction Site of Underground Specialized RCC Integrated Structure at Airforce Station, Shillong	Dr. B. Singh	Site-In-charge, Bharat Electronics Limited, Shillong
Consultancy for 50M tower measurement at Udaipur, Tripura, Tuipang and Kolasib, Mizoram	Dr. Hrishikesh Sharma	SAMSUNG
Consultancy work for proof checking of Pavement Design	Dr. A. K. Maurya	Mr. Arvind Parashar, Dy. Director (Design), Gandhinagar
Cross-cultural analysis and capacity building in construction management practise in Assam and Australia	Dr. L. Boeing Singh	University of melbourne, Parkville VIC 3010
Design Appraisal of Solid Waste management DPR for local Municioalities of Assam	Dr. Amarendra Kumar Das	Local Municipal Boards
Design for use of bamboo for Construction of Frangible Security Watch Tower at Barapani Airport	Dr. Hrishikesh Sharma	AAI, RHQ.NER, LGBI Airport, Borjhar, Guwahati
Design Mix for Pavement Quality Concrete (PQC) and investigation of materials: CA No. CE(AF)SZ/MHB/40 of 2015-16: Repair?Upgradation of Dispersal Area at AF Station Mohanbari under GE (AF) Mohanbari (Para 35 Works)	Dr. K. D. Singh	Prasad Construction Company

Design Mix for Pavements Quality Concrete (PQC) and Investigation of materials:	Dr. S. Talukdar	Gurumukh Singh, AE (Civil)
Design Mix M-25 grade for the Construction of SSB-Block (PMSSY) at Assam Medical College, Dibrugarh and Investigation of cement (Ultra Tech OPC 43 & Dalmia OPC 43)	Dr. H. B. Kaushik	S. Sarma Mgr, HSCC (India) Ltd
Detailed analysis, design drawings and cost estimate for retrofitting and rehabilitation of the Earthquake effected buildings at CAU Imphal	Dr. Hrishikesh Sharma	Cental Agricultural University Imphal, Manipur
Development of Methodology for production of Ammonium Bicarbonate from Urea	Dr. Rajesh Kumar Upadhyay	M/s Garima Industries, Ghy
Development of New Solvent for Gas Treating (Phase II)	Dr. Bishnupada Mandal	GAIL (INDIA) Limited
Estimation of angular displacement from vertically of 75m Guyed Mast Tower at All India Radio, Pasighat (Arunachal Pradesh)	Dr. Rishikesh Bharti	M/s Jai Durgey Engineering Co., 1/1, Surendra Nagar Tiraha, Gurudwara Road, Aligarh
Evalauation of Water Sample	Dr. Harsha Kota	NTPC Limited
Evaluation of Bitumen for Viscosity grading	Dr. Rajan Choudhary	Essar Oil Ltd
Evaluation of Bituminous Concrete Cores	Dr. Rajan Choudhary	National Highways Authority of India
Evaluation of Bituminous Concrete Cores	Dr. Rajan Choudhury	National Highways Authority of India
Evaluation of characteristics of HDPE Pipes at Laboratory condition	Dr. Arun Borsaikia	Mukand Poly Product
Evaluation of Dhansiri Major Irrigation Project	Dr. Subashisa Dutta	Nabard Consultancy Services Pvt Ltd
Evaluation of Permeability of Granular Sub-base Material	Dr. Rajan Choudhary	Mr. Anil Kumar/Mr. Ronak Sharma
Evaluation of Resilient Modulus of Bituminous Mix	Dr. Rajan Choudhury	GR INFRA PROJECT LTD
Evaluation of Soil Parameters	Dr. Rajan Choudhary	Punj Lloyd Ltd, At-Chekamari, Near NRL Petrol Pump, P.S.-Madarihat, P.O.-Rangali Bazna, Dist- Alipurduar WB India
Evaluation of Water Sample	Dr. Harsha Kota	NTPC Limited
Evaluation of Water Sample for Construction purpose	Dr. Harsha Kota	M/s Shivam Transcon Pvt Ltd
Evaluation of Water Sample for construction purpose	Dr. Harsha Kota	Bharat Electronics Limited, Ghaziabad, UP
Evaluation of water sample for construction purpose	Dr. P.K. Ghosh	Bharat Electronics Limited
Evaluation of water sample for construction purpose	Dr. P.K. Ghosh	Bharat Electronics Limited
Hydrological and Hydrodynamic model study of Brahmaputra River in Connection with the Water Intake Problem with the Guwahati Refinery	Dr. Arup Kumar Sarma	Guwahati Refinery Indian Oil Corporation Limited
In house Training Program on CAD software	Dr. Karuna Kalita	NEECO
Investigating Technical Suitability of Open Drain/Box Drain for the Dibrugarh Town Protection (DTP) Drain under AUIIP	Prof. Arup Kumar Sarma	Assam Urban Infrastructure Investment Program (AUIIP)
Investigation on supplied lime stone sample	Dr. Arun Borsaikia	NCC Limited, NCC Ciporate Office, Survey No.64, Madhapur, Hyderabad-500081

Laboratory Test of fine Aggregate for Construction of Br. No.130 between Khongsahg-Noney Station of Jiribam-Tupul	Dr. K.D. Singh	M/s Simplex Infrastructure Limited
Mitigation of Flash Flood by Using Ecological Management Practise at Geetanagar Hill	Dr. Arup Kumar Sarma	Government of Assam, Office of the Director of Soil Conservation, Assam, Bhumi Sangrakshan Bhawan, R.G. Baruah Road
Mix Design of concrete M 25 for Pile foundation & Pile Caps and Investigation of Cement (Dalmia PPC)	Dr. Sandip Das	Sushil Kakti, Manager (TL-Consth.,) Power Grid Corporation of India
Mix Design of concrete M-25 & M-30 for the construction of Pile & Other superstructure work of superspeciality block at Guwahati Medical College Campus Guwahati, Assam and investigation of construction	Dr. Bulu Pradhan	Site Engineer (Civil) HSCC (I) Ltd
Mix Design of concrete M-25 (piling works) for the work of Construction of Dormitory	Dr. K. Dasgupta	M/s Shivam Transcon Pvt Ltd
Mix Design of concrete M-25 for construction of CA No: CESZ/ MISM/08 of 2016-17: Provn of deficient DSC & Civilian MD ACCN at Misamamri and Investigation of Cement (Dalmia OPC 43)	Dr. S.K. Deb	GE Misamamri
Non Destructive Testing and Structural Safety Assesment of Income Tax Office Building at Digboi, Assam	Dr. Hrishikesh Sharma	Gol, Central Public Work Department, Executive Engineer, Assam Aviation Works Division, Airport Colony, Borjhar, Guwahati-781015
Performance Testing of a 7.5 HP Motor powered Mini Rice Mill	Dr. Pankaj Kalita	M/s B.K. Engineering Workshop, Lanka Nagaon, Assam
Periodical (Construction) Quality checks and costs of proposed NIPER campus Civil Project at Changsari, Kamrup Assam	Dr. Arun Chandra Borsaikia	Director, NIPER
Preparation of Integrated cluster approach plan and detailed project report for Tuting cluster, upper Siang	Dr. S.K. kakoty	State Nodal Agency, Rural Development, Arunachal Pradesh
Processing and characterization of polyethylene nanocomposite Films	Dr. Vimal Katiyar	Prayag Polytech Pvt Ltd
Proof Checking for the Construction of proposed Roof Over Galleries of Moulana Tayabullah Hockey Stadium	Dr. Hrishikesh Sharma	Managing Partner, United Design Studio, Dispur
Proof checking for the various proposed buildings constructed by CPWD, Assam	Dr. Hrishikesh Sharma	Government of India, Central Public Works Department, Executive Engineer, Assam Aviation Works Division, Airport Colony, Borjhar
Proof checking of an erection scheme of Bridge No. 1202/2 at UP	Dr. Anjan Dutta	GPT Infraprojects Limited, GPT Centre, JC-25, Sector-III, Salt Lake, Kolkata
Proof checking of Design & Drawings of Reinforced Soil wall Project at kali Khola Bridge under BRO Swastik in the state of Sikkim	Dr. A. Murali Krishna	M/s Maccaferri Environmental Solutions Pvt. Ltd., 14th Floor. Vatika Professional Point, Gurgaon
Proof checking of Design & Drawings of Reinforced Soil wall Project at Siyam Nallah Bridge under BRO Swastik in the state of Sikkim	Dr. A. Murali Krishna	M/s Maccaferri Environmental Solutions Pvt. Ltd., 14th Floor. Vatika Professional Point, Gurgaon
Proof checking of design 62.0m effective span bow string girder of ROB No. 215 in Jamalpur under Eastern Railway	Dr. Anjan Dutta	Hardev Construction (P) Limited

Proof checking of design and drawing of substrate and foundation of railway...	Dr. Sudip Talukdar	Government of Assam, Public Works (Bldg. & NH) Department, Office of the Chief Engineer (NH Works)
Proof checking of design and drawings of 15 nos. of bridges for N.F. Railways in Mizoram	Dr. Anjan Dutta	STUP Consultants Pvt Ltd
Proof checking of design Basis Reports, Technical Specifications, Construction....	Prof. D. N. Buragohain	Inland Waterways Authority of India
Proof checking of detail Structural Design and Drawings for proposed Hotel cum Commercial Project in Police Bazar, Shillong, Meghalaya	Dr. K. D. Singh	Centre Point Group Enterprise
Proof checking of projects for Admeca Design and Engineering Harayana	Dr. Hrishikesh Sharma	Admeca Design and Engineering Solutions LLP, Haryana
Proof checking of Slope Stability and Proposed Remedial Measures in Connection with Construction of Bairabi-Sairang Mizoram New BG Line Project	Dr. Sreedeeep Sekharan	Genstru Consultant Pvt Ltd
Proof checking of Structural Design and detailed design calculation for proposed construction of CIF and Drug Development centre at IASST, Paschim Boragaon, Ghy-35	Dr. H. Sharma	IASST Vigyan path, Paschim Boragaon, Garchuk, Guwahati
Proof checking of Twins 2 lane ROB and its approaches	Dr. Anjan Dutta	Mackintosh Burn Limited, Kolkata
Proof Cheking of detailed Structural Design and Drawing of Foundation for 500 KL Crude Oil Storage Tank	Dr. K.D. Singh	Ruben R Cgaudhury, Managing Director, Mech Technik (India) Pvt Ltd
Proof Consultancy for a ROB Malda Road Project	Dr. Anjan Dutta	M/s Gannon Dunkerley & Co., Ltd, Kolkata
Providing Moulds and Accessories to the handicraft Artisans Cluster under Skhen.in Phase-I	Dr. Avinash Shende	Government of Meghalaya, Directorate of Commerce & Industries
Rehabilitation and up gradation to four laning of NH-31D from km0.0 to km 83.785 Ghoshpukur-Salsalbari section of West bengal on EPC basic-permeability test of sub-base material	Dr. Anil Kumar Mishra	L&T Construction
Rest on Physical & Mechanical Properties of colour Coated Galvalume Sheet	Dr. S. Talukdar	Chandan Pal, T/A ©/RITES LTD
Socio-economic impact assessment of few selected programs/projects/schemes implemented by CSIR-NEIST, Jorhat	Prof. Utpal Bora	CSIR-NEIST, Jorhat
Soil Testing and its applicability as a fill material	Dr. Arindam Dey	HSCC(I) Limited site office, SSB Block, Near Cancer Department, Guwahati Medical College
Technical Assistance for UI audit of IT application and Design of new e-budget application	Dr. Keyur Sorathia	Shri Kailash Karthik, IAS
Technical mentoring and project related guidance for Kovid Labs	Prof. SRM Prasanna	Kovid Analytics India Pvt. Ltd
Test on Physical & Mechanical properties of SHYAM steel for the construction of Dormitory Building for the Guest House at IITG Campus	Dr. Sandip Das	Assistant Executive Engineer, IITG
Test on Physical & Mechanical Properties of Colour Coated Galvalume Sheet	Dr. S. Talukdar	Chandan Pal, RITES LTD
Test on Physical & mechanical properties of SHYAM steel for the construction of improvement of drainage systems in the IITG Campus	Dr. S. Talukdar	Assistant Executive Engineer

Test on Physical and Mechanical properties of Foundation Bolt of TR No.-2 for the Construction of well foundation at River Brahmaputra for Guwahati Ropeway Project Assam	Dr. Anjan Dutta	ITES, House No.55, 1st Floor, Basistha Pur Lane 1, Near Wireless Bus Stop, P.O. Dispur, Guwahati
Test on Physical and mechanical Properties of SHYAM steel for the construction of 1000 seater Boy's Hostel No.11 at IITG Campus	Dr. H.B. Kaushik	Badri Rai & Co.
Test on Physical Properties of Green AAC Block	Dr. Hrishikesh Sharma	B.R. Metallics
Test on Physical properties of Max cement PPC, OPC 53 & OPC 43 grade	Dr. K.D. Singh	Atul Kumar Dutta, Asst General Manager-Tech., Green valley Ltd
Test on Physical properties of Powerlire AAC Block	Dr. K. Dasgupta	Marda Industries Pvt. Ltd. Meghalaya
Test on Physical properties of Star Cement PPC & Best PPC	Dr. S. Talukdar	Biplab Jyoti Gohain, Dy. Manager (Technical), JSB Cement LLP
Testing of Boiler Fuel Oil	Debarshi Baruah	Eris Lifesciences Ltd
Testing of CC Block and Reinforcement (SAIL)	Dr. Kaustubh Dasgupta	Container Corporation of India Limited, Inland Container Depot, Amingaon, Guwahati
Testing of Construction Materials for M-25 Grade Concrete Design Mix for Pile Foundation to be used in construction of 132kV GMCH GtS S/S under ASM SS-04 package	Dr. Anjan Dutta	Power Grid Corporation of India Limited
Testing of Sand sample for the construction of super speciality block at Guwahati Medical College Campus Guwahati Assam	Dr. Bulu Pradhan	HSCC (India) Ltd
Testing of Steel Fibre	Dr. K.D. Singh	NTPC Limited, Rammam-III Hydro Electric project
Tests on Physical and Mechanical Properties of AAC Block (Superlite) for construction of Super Speciality Block under PMSSY at North Bengal Medical College & Hospital, Siliguri, West Bengal	Dr. K.D. Singh	Other - Superlite Block Industry, 4th Floor, P. B. Choudhury Mansion, B K Kakoty Road, Ulubari, Assam
Tests on Physical and Mechanical Properties of Superlite AAC Blocks	Dr. K.D. Singh	Superlite Block Industry, Assam
Tests on Physical Properties of Solid Clay Bricks	Dr. K. Dasgupta	S.D. Ceramics LLP
Transient analysis of Balance Work of Transmission main from Bharatpur to Deeg, Kaman, Pahari, nagar & RWSS for 97 Village under CDBP	Dr. Bimlesh Kumar	Shree Hari Infrapmjects Private Limited
Transnational Policy Dialogue for Improved Water Governance of the Brahmaputra River-Phase3.	Dr. A. Barua	SaciWATERS, South Asia Consortium For Interdisciplinary Water Resources Studies, Telangana
User experience metrics for car dashboard Human Machine Interface (HMI)	Dr. Keyur Sorathia	Jaguar Land Rover Limited
Vetting of design of ground improvement work using PVD in connection with Agartala-Akhaura rail link projec	Dr. A. Murali Krishna	M/s ECI-Nayak Joint Venture, 2nd Floor, Kamakhya Commercial, C.K. Road, Panbazar, Guwahati
Vibration test & Consulatncy requirement for MRI installation by Wipro GE Healthcare at Nemcare Hospital, Guwahati	Dr. Rajiv Tiwari	Atul Chaudhary, Program Manager-North & East Wipro GE Healthcare Pvt. Ltd.
Waterless and Contactless Solar Panel Cleaning solution	Dr. Harsh Chaturvedi	Fortum India Limited, Building 5, Tower A, Level 7, DLF Cuber City Complex, Gurgaon

Research Projects Completed During 2017-2018

Principal Investigator	Project Title	Sponsoring Agency	Amount Santioned (Rs. In Lakh)	Co-Investigator	Duration
Biosciences and Bioengineering					
Sachin Kumar	Improved Infectious Bursal Disease Virus Vaccines Using Newcastle Disease Virus Vector	Department of Biotechnology	72.04	Nitin Chaudhary	3
Sachin Kumar	Role of N-glycans of Newcastle disease virus fusion protein in the host immune signaling molecules	Department of Atomic Energy	16.80	-	3
Vibin Ramakrishnan	Design and Characterization of Polypeptide constructs as Prototypes for Bio-sensing and Imaging Applications.	Council of Scientific and Industrial Research (CSIR)	10.67	-	2
Shankar Prasad Kanaujia	Understanding the mechanism of substrate delivery through solute binding proteins related to ABC transporters	Department of Science and Technology	47.19	-	4
Vikash Kumar Dubey	Optimization of novel antileishmania scaffold 4-(4,4,8-Trimethyl-7-oxo-3-oxabicyclo[3.3.1]non-2-yl)-benzoic acid methyl ester, a oxabicyclo[3.3.1]nonanones: A mechanistic study	Department of Biotechnology,	25.66	Anil Saikia	2
Vikash Kumar Dubey	Identification of novel drug targets of Leishmania donovani: Studies on CAAX prenyl protease I and II of the pathogen	Department of Biotechnology	73.69	-	2
Ajaikumar B. Kunnumakkara	An investigation on the expression of various protein tyrosine kinases and their phosphorylated forms in different stages of the development of oral squamous cell carcinoma	Department of Biotechnology	76.50	-	3
B. Anand	"Molecular Mechanism of Ribosome Assembly in Bacteria"	Department of Biotechnology	70.202	-	3
Rajaram Swaminathan	Investigating the role of protein dynamics on the function of few disordered proteins	Biotech Consortium of India Limited	98.20	-	3
Lalit Pandey	Kinetic of initial cell adhesion on surfaces with mono and mixed self-assembled monolayers (SAMs)	IIT Guwahati	5.00	-	2
Biman B Mandal	Silk2Heal	Department of Biotechnology	74.70	P. Sukumar	3
Biman B Mandal	Electrospun Silk Bioglass Scaffold for Interfacial Tissue Engineering	Department of Science and Technology	15.50	P. Sukumar	2

Principal Investigator	Project Title	Sponsoring Agency	Amount Santioned (Rs. In Lakh)	Co-Investigator	Duration
Biman B Mandal	Development of novel tissue engineered silk biomaterial based wound dressing patch for diabetic foot ulcers	Department of Biotechnology	56.96	P. Sukumar	3
Biman B Mandal	Stem Cell Based Bioengineering of Annulus Fibrosus in an Intervertebral Disc model using North-East Silk Biomaterials	Department of Science and Technology	54.50	-	4
Biman B Mandal	Understanding the role of cellular cross talks for cartilage tissue repair using a 3D co-culture tissue model	Department of Biotechnology	37.06	-	3
Arun Goyal	Development of novel thermophilic glycoside hydrolases and carbohydrate binding modules and exploiting their properties for bioethanol production and for food and industrial applications	Indo-Portugal Joint Project	8.04	-	3
Lingaraj Sahoo	Development of transgenic cowpea for virus resistance using the tool of RNA interference	Department of Biotechnology	83.34	Sunil Mukherjee	4
Lingaraj Sahoo	A novel energy efficient hydrodynamic cavitations technique for extraction of oil from micro algae for biodiesel production	Council of Scientific and Industrial Research (CSIR)	18.96	V. V. Gaud	3
Lingaraj Sahoo	Plant probiotics to improve crop production in low nutrient soil	DST-JSPS Indo-Japan project	6.94	Hiroyuki Koyama	2
Lingaraj Sahoo	Development of Pod Borer Resistant Transgenic Pigeonpea and Chickpea	Indian Council of Agricultural Research	58.00	S. K. Sen	5
Lingaraj Sahoo	Development and evaluation of transgenic mungbean over expressing AtNHX1 and AVP1 for salt tolerance	Department of Biotechnology	93.12	-	3
Lingaraj Sahoo	Molecular cloning and functional characterization of heavy metal stress specific phytochelatin synthase gene from Eichhornia crassipes	Department of Biotechnology	78.40	-	5
Lingaraj Sahoo	Cloning and characterization of STOP1 transcription factor from cowpea and its functional analysis	Department of Science and Technology	22.50	H. Koyama, S. K. Panda	3
V. V. Goud	Super critical fluid extraction of natural antioxidants for food preservation from spices and non-conventional fruits endemic in North eastern region	Department of Biotechnology	75.65	Lingaraj Sahoo	3
Lingaraj Sahoo	Molecular cloning and functional Analysis of Na ⁺ /H ⁺ antiporter gene in Cowpea (<i>Vigna unguiculata</i> L Walp)	Department of Biotechnology	44.88	S. K. Panda	3

Principal Investigator	Project Title	Sponsoring Agency	Amount Sanctioned (Rs. In Lakh)	Co-Investigator	Duration
Lingaraj Sahoo	Amino acid polymorphism in conserved Motifs in HMA proteins and Heavy Metal Resistance in Plants	Indo-Japan DST Project	4.20	H. Koyama, Satoshi Iuchi S. K. Panda	3
Lingaraj Sahoo	Genetic engineering of Cowpea (<i>Vigna unguiculata</i>) for resistance to pod borer and bruchid	Department of Biotechnology	11.62	L. Rangan	3
Lingaraj Sahoo	Genetic engineering of Cowpea (<i>Vigna unguiculata</i> L. Walp) for storage pest resistance	Department of Science and Technology	4.92	-	3
Lingaraj Sahoo	Cloning of elite germplasm of <i>Jatropha</i> for large scale plantation	Defence Research and Development Organisation	9.98	-	3
Lingaraj Sahoo	Development of micropropagation technology for <i>Jatropha</i> : A potential biofuel plant	North Eastern Development Finance Corporation Ltd	4.00	-	3
Chemical Engineering					
Bishnupada Mandal	CO ₂ -Capture by CO ₂ -Selective Thin-film Composite Polymeric Membrane Containing Amine Carrier	DST	74	-	
Bishnupada Mandal	Natural Gas Purification by CO ₂ -Selective Silica Membrane	CSIR	23	-	3
Ramagopal Uppaluri	Indo-Japan Bilateral Symposium on "Future Perspectives of Bio-resource Utilization in North-east India"	DST	9.33	Vimal Katiyar	
Tamal Banerjee	Ionic Liquid assisted Thermal Dehydrogenation of Ammonia Borane	DST	35	G.Pugazenthi	3
Tamal Banerjee	Dispersion and Dissolution of Coal in Ionic Liquids: Theoretical Predictions and Experimental Validation	CSIR	20	K. Mohanty	3
Vimal Katiyar	Thermopack	Ministry of Food Processing Industries	38	Amit Kumar	2
Vimal Katiyar	SustainNanoPACK	Department of Biotechnology	134	Debasis Das	3
Chemistry					
Sandip Paul	Effect of osmolytes urea and trimethylamine-N-oxide on hydrophobicity and protein folding/unfolding under confinement	DST	20.70	-	3

Principal Investigator	Project Title	Sponsoring Agency	Amount Santioned (Rs. In Lakh)	Co-Investigator	Duration
Chandan Mukherjee	Transition metal–radical complexes as oxidation catalysts	CSIR	15.42	-	3
Subhas Chandra Pan	Aminocatalytic New Asymmetric Transformations	DST-MPI	72.00	-	4
Krishna Pada Bhabak	Start-Up Research Grant (Young Scientists)	SERB-DST	22.80	-	3
Civil Engineering					
Ajay Kalamdhad	Biodegradation of pulp and paper mill waste using different composting techniques	SERB	1.30	-	3
Gautam Barua	Transient analysis of ditch drainage networks subjected to variable ponding distributions at the surface of the soil	SERB	40.31	Suresh A. Kartha	3
Manish Kumar Goyal	An integrated approach for snowmelt hydrological modeling at downstream of Sikkim Glaciers	SERB	26.51	Arup Kr. Sarma	3
S. Das	Sesmic design criteria for RC structures considering Mainshock sequence for Northeastern India	DST	23.15	H. B. Kaushik	3
Ankit Garg	A study on vegetation root water uptake induced surface settlement	IIT Guwahati	5.00	-	2
Ajay Dashora	High Resolution mapping using low cost airborne photographic data acquisition methods	IIT Guwahati	5.00	-	2
Abhishek Kumar	Seismic site classification of Guwahati city and development of design response spectra considering detailed in-situ geotechnical and geophysical studies	IIT Guwahati	5.00	-	2
Archana M. Nair	Formation Evaluation of Upper Assam Shelf Basin based on routine core Analysis for reassessment of petroleum reserves	IIT Guwahati	5.00	-	2
Ankit Garg	A study on soil-water hyacinth interaction for reinforcement	SERB	18.90	-	3
Budhaditya Hazra	Development of a real-time low cost structural health monitoring system	IIT Guwahati	5.00	-	2
Rishikesh Bharti	Duricrust Mapping in Paris of Western Rajasthan Using Advance Remote Sensing Techniques	IIT Guwahati	5.00	-	2
Sri Harsha Kota	Studying air quality during Common Wealth Games in 2010 at New Delhi	IIT Guwahati	5.00	-	2
H. B. Kaushik	Evaluation of a strengthening scheme for unreinforced masonry building using steel bands	SERB	25.20	K. Mohanty	3

Principal Investigator	Project Title	Sponsoring Agency	Amount Santioned (Rs. In Lakh)	Co-Investigator	Duration
Anjan Dutta	Experimental investigation on the use of HYFRC in enhancing seismic performance of reinforced concrete bridge pier	M/s D2S Infrastructures Pvt. Ltd.	5.66	-	
Computer Science and Engineering					
Santosh Biswas	On line Testing of Complex VLSI Circuits using Failure Detection and Diagnosis Theory of Discrete Event Systems	Meity	124	S Nandi, J. K. Deka	4
Electronics and Electrical Engineering					
Hemangee Kapoor	Reducing Cache Access Time in Tiled Chip Multiprocessors	DEITY	76.00	Gaurav Trivedi	3
Gaurav Trivedi	High Performance Computing using GPU	Nvidia	Approx 10.00	Kalpesh Kapoor, Praveen Kumar, R. Bhattacharjee, Saswata Shannigrahi	3
C. Mahanta	Robust Control of a Robotic Manipulator using Sliding Mode Controller	Science and Engineering Research Board (SERB), DST	15.00	-	3
Humanities and Social Sciences					
S. Mallick	Online Video Course on Science, Technology and Society	MHRD (under CSS-MOOCs)	6	-	7
Mathematics					
Partha Sarathi Mandal	Global Initiative of Academic Networks Course on Autonomic Networks	MHRD	5.44	Sebastien Tixeuil	5 days
Physics					
Amarendra K. Sarma	Parity-time symmetry in Nonlinear Optics	DST-SERB	14.47	-	3
Subhash Thota	Investigation of the dielectric response and ac-conductivity studies of KNbO_3 - MgMnO_3 and NaNbO_3 - NiO	DAE-BRNS-YSRA	22.85	-	3
Centre for the Environment					
A. K Ghoshal	Assessment of microbial communities and their biodegradation potentials in petroleum hydrocarbon contaminated environments in Assam	DBT	21.8	-	3

Principal Investigator	Project Title	Sponsoring Agency	Amount Sanctioned (Rs. In Lakh)	Co-Investigator	Duration
Centre for Educational Technology					
Jatindra Kumar Deka	Developing suitable pedagogical methods for various classes, intellectual calibers and research in e-learning	MHRD	91.94	-	3
Sunil Khijwania	Strengthening Implementation Arrangement in TEQIP III	MHRD	14.971	-	1 ½ months

PART IV

APPENDICES

Faculty

Officers and Scientific Staff (Group A)

Degree Awardees

Progress in Construction Works

Equal Opportunity cum Special Reservation Cell

Summary of Institute Accounts

Appendix–I**FACULTY****Biosciences and Bioengineering****Professor**

- 1 Bora, U.
- 2 Chaturvedi, R.
- 3 Dasu, V. V.
- 4 Dubey, V. K.
- 5 Ghosh, S. S.
- 6 Goswami, P.
- 7 Goyal, A.
- 8 Pakshirajan, K.
- 9 Ramesh, A.
- 10 Rangan, L.
- 11 Sahu, L.
- 12 Saini, G. K.
- 13 Swaminathan, R.

Associate Professor

- 1 Baskaran, A.
- 2 Bose, B.
- 3 Chaudhary, N.
- 4 Das, D.
- 5 Jaganathan, B. G.
- 6 Kanaujia, S. P.
- 7 Kumar, M.
- 8 Kumar, S.
- 9 Kunnumakkara, A. B.
- 10 Limaye, A. M.
- 11 Mandal, B. B.
- 12 Patra, S.
- 13 Ramakrishnan, V.
- 14 Sivaprakasam, S.
- 15 Tamuli, R.
- 16 Trivedi, V.

Assistant Professor

- 1 Chanda, S. (From 02.05.2017)
- 2 Chandra, P.
- 3 Gupta, C. N.
- 4 Kobayashi, Y.
(Visiting Assistant Professor upto 26.06.2017)
- 5 Maiti, S. K.
- 6 Nagotu, S.
- 7 Narayanasamy, S. (From 24.04.2017)
- 8 Pandey, L. M.

- 9 Satpati, P.
- 10 Singh, K. K.
- 11 Sukumar, P. (Upto 01.09.2017)
- 12 Thummer, R. P.

Chemical Engineering**Professor**

- 1 Banerjee, T.
- 2 Ghosh, P.
- 3 Ghoshal, A. K.
- 4 Gumma, S.
- 5 Majumder, S. K.
- 6 Mandal, B.
- 7 Mohanty, K.
- 8 Moholkar, V. S.
- 9 Pugazhenth, G.
- 10 Purkait, M. K.
- 11 Saha, P. K.
- 12 Singh, A.
- 13 Uppaluri, R. G. V. S.

Associate Professor

- 1 Bandyopadhyay, D.
- 2 Das, C.
- 3 Dasmahapatra, A. K.
- 4 De, M.
- 5 Golder, A. K.
- 6 Goud, V. V.
- 7 Katiyar, V.
- 8 Kishore, N.
- 9 Kotecha, P.
- 10 Kumar, A.
- 11 Mandal, T. K.
- 12 Murugan, S. S.
- 13 Upadhyay, R. K.

Assistant Professor

- 1 Anandalakshmi, R.
- 2 Gupta, R.
- 3 Katha, A. R.
- 4 Pattader, P. S. G.
- 5 Peela, N. R.
- 6 Rajaraman, P. V.

- 7 Tiwari, P.
- 8 Vairakannu, P.

Chemistry

Professor

- 1 Bag, S. S.
- 2 Baruah, J. B.
- 3 Chattopadhyay, A.
- 4 Das, G.
- 5 Gupta, A. K.
- 6 Iyer, P. K.
- 7 Khan, A. T.
- 8 Krishnamoorthy, G.
- 9 Manivannan, V.
- 10 Mondal, B.
- 11 Panda, A. N.
- 12 Patel, B. K.
- 13 Paul, A.
- 14 Paul, S.
- 15 Punniyamurthy, T.
- 16 Ray, M.
- 17 Saikia, A. K.
- 18 Qureshi, M.

Associate Professor

- 1 Biswas, S. P.
- 2 Das, D.
- 3 Dutta, S.
- 4 Jana, C. K.
- 5 Kundu, L. M.
- 6 Mandal, B.
- 7 Manna, D.
- 8 Mukherjee, C.
- 9 Pan, S. C.
- 10 Sahu, K.
- 11 Sarma, M.
- 12 Sastri, C. V.
- 13 Sudhakar, A. A.

Assistant Professor

- 1 Bhabak, K. P.
- 2 Chatterjee, S.
- 3 Das, A.
- 4 Kancharla, P. K.
- 5 Mahata, K.
- 6 Manna, U.
- 7 Raidongia, K.
- 8 Seetharam, A. K. A.
- 9 Srimani, D.

Civil Engineering

Professor

- 1 Barua, G.
- 2 Bhattacharjya, R. K.
- 3 Chakraborty, S.

- 4 Deb, S. K.
- 5 Dutta, A.
- 6 Dutta, S.
- 7 Ghosh, P. K.
- 8 Gokhale, S. B.
- 9 Jawed, M.
- 10 Mahanta, C.
- 11 Ryntathiang, T. L.
- 12 Sarma, A. K.
- 13 Sekharan, S.
- 14 Singh, A. K.
- 15 Singh, B.
- 16 Singh, K. D.
- 17 Talukdar, S.

Associate Professor

- 1 Bharat, T. V.
- 2 Chakraborty, A.
- 3 Choudhury, R.
- 4 Kalamdhad, A.
- 5 Kartha, S. A.
- 6 Kaushik, H. B.
- 7 Krishna, A. M.
- 8 Kumar, B.
- 9 Mallikarjuna, C.
- 10 Maurya, A. K.
- 11 Mishra, A. K.
- 12 Pekkat, S.
- 13 Pradhan, B.
- 14 Singh, L. B.

Assistant Professor

- 1 Bharati, R.
- 2 Das, S.
- 3 Dasgupta, K.
- 4 Dashora, A.
- 5 Dey, A.
- 6 Garg, A. (Upto 24.04.2017)
- 7 Goyal, M. K.
- 8 Hazra, B.
- 9 K., Ravi
- 10 Kota, H.
- 11 Kumar, A.
- 12 Nair, A. M.
- 13 Ranjani, G. I. S.
- 14 Sarma, H.
- 15 Shelke, A.
- 16 Siddagangaiah, A. K.

Computer Science and Engineering

Professor

- 1 Barua, G.
- 2 Bhaduri, P.
- 3 Das, P. K.
- 4 Dekka, J. K.

- 5 Goswami, D.
- 6 Kapoor, H. K.
- 7 Malhotra, V. M. (Visiting Professor since 25.07.2016)
- 8 Nair, S. B.
- 9 Nandi, S.
- 10 Rao, S. V.
- 11 Sajith, G.

Associate Professor

- 1 Anand, A.
- 2 Bhattacharya, S.
- 3 Biswas, S.
- 4 Inkulu, R.
- 5 Karmakar, S.
- 6 Mitra, P.
- 7 Sahu, A.
- 8 Saradhi, V. V.
- 9 Sarkar, A.
- 10 Singh, S. R.
- 11 Sur, A.
- 12 Venkatesh, T.

Assistant Professor

- 1 Awekar, A. C.
- 2 Baruah, R. D.
- 3 Jose, J.
- 4 Karfa, C.
- 5 Kenkireth, B. G.
- 6 Kesh, D.

Design Professor

- 1 Barua, U.
- 2 Chakrabarti, D.
- 3 Das, A. K.
- 4 Puneekar, R. M.
- 5 Yammiyavar, P. G.

Associate Professor

- 1 Karmakar, S.
- 2 Kumar, D. U.
- 3 Sorathia, K. B.

Assistant Professor

- 1 Banerjee, S.
- 2 Bokil, P. (Upto 15.01.2018)
- 3 Das, S.
- 4 Dhar, Debayan
- 5 Gokhale, S. M.
- 6 Iqbal, S.
- 7 Kalita, P. C.
- 8 Madhukailya, M.
- 9 Majhi, M.
- 10 Monga, C.
- 11 Nath, N. (Upto 15.12.2017)

- 12 Pal, S.
- 13 Roy, S. (Upto 11.08.2017)
- 14 Salve, U. R.
- 15 Shinde, A.
- 16 Singh, A.
- 17 Srivastava, A.
- 18 Upadhyay, P.

Visiting Faculty

- 1 Baruah, Nikhilesh (Visiting Faculty since 16.05.17)

Electronics and Electrical Engineering Professor

- 1 Bhattacharjee, R.
- 2 Bora, P. K.
- 3 Bose, S. K.
- 4 Dandapat, S.
- 5 Gogoi, A. K.
- 6 Mahanta, C.
- 7 Majhi, S.
- 8 Nemade, H. B.
- 9 Palathinkal, R. P.
- 10 Prasanna, S. R. M.
- 11 Singh, K. R.
- 12 Sinha, R.
- 13 Mahanta, A. (Visiting Professor upto 20.09.17)

Associate Professor

- 1 Ahamed, S. R.
- 2 Bhuyan, M. K.
- 3 Kar, I.
- 4 Karthik, K.
- 5 Kumar, P.
- 6 Rajesh, A.
- 7 Sethi, A. (Upto 05.07.2017)
- 8 Nayak, S. K.

Assistant Professor

- 1 Adda, R.
- 2 Agarwal, Satyam (From 27.06.2017)
- 3 Arrawatia, Mahima (From 03.07.2017)
- 4 Chatterjee, A.
(Visiting Assistant Professor upto 01.12.17)
- 5 Chouhan, S.
- 6 Das, S.
- 7 Dhaka, K.
- 8 Ganguly, S.
- 9 Guha, P.
- 10 Jacob, T.
- 11 Kashyap, S. (From 24.07.2017)
- 12 Krishnaswamy, S.
- 13 Kulkarni, R. D. (From 03.07.2017)
- 14 Kumar, C.
- 15 Mallajosyula, A. T.

- 16 Nallam, N.
- 17 Nath, S.
- 18 Rai, B. K.
- 19 Ribhu (From 11.04.2017)
- 20 Sekhawat, H. S.
- 21 Sikdar, D. (From 03.05.2017)
- 22 Sonkar, R. K.
- 23 Sundaram, S.
- 24 Tripathy, P.
- 25 Trivedi, G.

Humanities and Social Sciences

Professor

- 1 Barua, A.
- 2 Borbora, S.
- 3 Das, L.
- 4 Dutta, M. K.
- 5 Nath, H. K. (Visiting Professor upto 31.07.2017)
- 6 Puneekar, R. M.
- 7 Saikia, A.
- 8 Sharma, N. K. (Visiting Professor since 12.07.2017)
- 9 Tripathi, N.

Associate Professor

- 1 Barua, A.
- 2 Bedamatta, R.
- 3 Das, D.
- 4 Hussain, D.
- 5 Kashyap, N.
- 6 Mahanta, S.
- 7 Mallick, S.
- 8 Ray, S.
- 9 Saikia, Pahi
- 10 Sarmah, P.
- 11 Sengupta, B.
- 12 Sharma, S.
- 13 Som, B.
- 14 Venkataraman, P.

Assistant Professor

- 1 Basu, D.
- 2 Dutta, V. (From 26.07.2017)
- 3 Jairath, V. (From 30.06.2017)
- 4 Jha, M. K.
- 5 Keshavamurthy, K. (From 18.07.2017)
- 6 Khanolkar, P. (From 01.08.2017)
- 7 Kipgen, N.
- 8 Mahanta, A.
- 9 Parmar, D. C. (From 05.07.2017)
- 10 Parui, A. (Upto 06.11.2017)
- 11 Ranjan, R. (From 29.12.2017)
- 12 Roychoudhuri, R. (From 03.10.2017)
- 13 Sarkar, A. (From 06.11.2017)
- 14 Thomas, J.

Mathematics

Professor

- 1 Alam, R.
- 2 Bora, S.
- 3 Bora, S. N.
- 4 Dalal, D. C.
- 5 Kalita, J. C.
- 6 Kapoor, K.
- 7 Pati, S.
- 8 Prasad, M. G. P.
- 9 Saikia, A.
- 10 Sarma, B. K.
- 11 Selvaraju, N.
- 12 Sinha, R. K.
- 13 Srinivasan, N.

Associate Professor

- 1 Barman, R.
- 2 Bhattacharjya, B.
- 3 Chakrabarty, S. P.
- 4 Das, G. K.
- 5 Deka, B.
- 6 Krishna, K. V.
- 7 Mandal, P. S.
- 8 Sairam, A. S. (From 09.08.2017)

Assistant Professor

- 1 Bandyopadhyay, S.
- 2 Chakrabarty, A. K.
- 3 Chattopadhyay, A.
- 4 Dey, A. K.
- 5 Dutta, S.
- 6 Ganguly, A.
- 7 Kamal, S.
- 8 Kenettinkara, S. K. (From 30.06.2017)
- 9 Kumar, P.
- 10 Palaparthi, A. S. S. K.
- 11 Pal, C. (From 31.05.2017)
- 12 Ramesh, H.
- 13 Saha, S.
- 14 Srikanth, K. V.
- 15 Srivastava, R. K.
- 16 Swain, J.
- 17 Tiwari, S.
- 18 Upadhyay, S.
- 19 Wagh, V. V.

Mechanical Engineering

Professor

- 1 Biswas, G. (Director)
- 2 Chakraborty, D.
- 3 Dass, A. K.
- 4 Dixit, U. S.
- 5 Dwivedy, S. K.
- 6 Hazarika, S. M. (From 16.05.2017)

- 7 Kakoty, S. K.
- 8 Kanagaraj, S.
- 9 Mahanta, P.
- 10 Murthy, K. S. R. K.
- 11 Muthukumar, P.
- 12 Pandey, M.
- 13 Robi, P. S.
- 14 Saha, U. K.
- 15 Sahasrabudhe, A. D.
- 16 Sahoo, N.
- 17 Senthilvelan, S.
- 18 Tiwari, R.

Associate Professor

- 1 Bag, S.
- 2 Bandopadhyay, D.
- 3 Banerjee, A.
- 4 Biswas, P.
- 5 Dalal, A.
- 6 De, A. K.
- 7 Joshi, S. N.
- 8 Kalita, K.
- 9 Kore, S. D.
- 10 Kulkarni, V. N.
- 11 Narayanan, R. G.
- 12 Natarajan, G.
- 13 Pal, S.
- 14 Panda, S.

Assistant Professor

- 1 Basu, D. N.
- 2 Das, M.
- 3 Gautam, S. S.
- 4 Gavara, M. R.
- 5 Khanikar, P.
- 6 Kumar, B.
- 7 Kumari, P.
- 8 Manadal, P. K.
- 9 Mehta, B.
- 10 Muthu, N. (From 22.05.2017)
- 11 Nandy, A. K. (From 28.06.2017)
- 12 Rajendraswamy, S. D.
- 13 Reddy, A. N.
- 14 Shankar, M. R.
- 15 Sharma, D.

Physics

Professor

- 1 Agarwal, P.
- 2 Ahluwalia, D. V. (Visiting Professor since 22.08.16)
- 3 Alagarsamy, P.
- 4 Basu, S.
- 5 Bhuyan, B.
- 6 Boruah, B. R.
- 7 Ghosh, S.

- 8 Giri, P. K.
- 9 Khare, A.
- 10 Khijwania, S. K.
- 11 Padmanabhan, P. K.
- 12 Pal, D.
- 13 Poulose, P.
- 14 Ravi, S.
- 15 Santra, S. B.
- 16 Sarma, A. K.
- 17 Setlur, G. S.
- 18 Srinivasan, A.

Associate Professor

- 1 Das, S.
- 2 Dey, T. N.
- 3 Kadolkar, C. Y.
- 4 Kumar, G.
- 5 Nandy, M. K.
- 6 Pamu, D.
- 7 Sharma, A. K.
- 8 Sil, A.
- 9 Thota, S.

Assistant Professor

- 1 Bhattacharya, S.
- 2 Borah, D.
- 3 Chakrabarti, S. K.
- 4 Chakraborty, S.
- 5 Kumar, M. C.
- 6 Maiti, U. N.
- 7 Maity, D.
- 8 Majhi, B. R.
- 9 Mishra, P. K.
- 10 Mishra, T.
- 11 Nandi, S.
- 12 Pandey, K.
- 13 Raha, U.

Centre for Energy

Assistant Professor

- 1 Chaturvedi, H.
- 2 Kalita, P.

Centre for Linguistic Science and Technology

Visiting Faculty

- 1 Samudravijaya, K.

Centre for Rural Technology

Associate Professor

- 1 Mitra, S.

Assistant Professor

- 1 Singha, S.
- 2 Khwairakpam, M.

Appendix-II

OFFICERS AND SCIENTIFIC STAFF (GROUP A)

Officers (Group A)

Name	Designation	Dept./Section
Das, U. C.	Registrar	
Barua, S. K. (Retd. On 31.03.2018)	Academic Registrar	Academic Affairs
Goswami, D. J.	Joint Registrar	Administration
Hazarika, P.	Joint Registrar	Finance and Accounts
Bhuyan, K.	Deputy Registrar	Establishment and QIP
Boro, D.	Deputy Registrar	PIO & EO-cum-SRC
Haokip, T. T.	Deputy Registrar	S&P
Sharma, D.	Deputy Registrar	R&D
Boishya, D. L.	Assistant Registrar	Finance and Accounts
Borgohain, P.	Assistant Registrar	Faculty Affairs
Choudhury, S.	Assistant Registrar	Establishment
Das, G.	Assistant Registrar	Medical & QIP
Das, K. C.	Assistant Registrar	Admn. (Rectt.)
Dutta, D. J.	Assistant Registrar	Internal Audit
Kakati, M.	Assistant Registrar	Students' Affairs
Konwar, L. K.	Assistant Registrar	Public Relations
Mandal, S. (On Deputation)	Assistant Registrar	R&D
Phukan, A.	Assistant Registrar	Director's Office
Salhotra, N. D.	Assistant Registrar	Legal Cell
Shynret, A. W.	Assistant Registrar	AA&ER
Singh, T. J.	Superintending Engineer (Civil)	Engineering Section
Bhagawati, D.	Exe. Engineer (Elect.)	Engineering Section
Roy, N.	Exe. Engineer (Civil)	Engineering Section
Barman, K.	Asst. Exe. Eng. (Elect.)	Engineering Section
Bhattacharjee, S.	Asst. Exe. Eng. (Civil)	Engineering Section
Choudhury, B.	Asst. Exe. Eng. (Civil)	Engineering Section
Dutta, D.	Asst. Exe. Eng. (Civil)	Engineering Section
Gogoi, A. K.	Asst. Exe. Eng. (Civil)	Engineering Section
Sarma, N. K.	Asst. Exe. Eng. (Civil)	Engineering Section
Senapati, S.	Asst. Exe. Eng. (Elect.)	Engineering Section
Guha, T. K.	Librarian	LNB Central Library
Saibaba, B. (Retd. On 31.12.2017)	Deputy Librarian	LNB Central Library

Deka, S. K.	Assistant Librarian	LNB Central Library
Rajbangshi, R. K.	Assistant Librarian	LNB Central Library
Borthakur, M.	Chief Medical Officer (SAG)	Medical
Barua, L.	Chief Medical Officer (NFSG)	Medical
Baruah, A. K.	Chief Medical Officer (NFSG)	Medical
Majumdar, Surojit	Medical Officer	Medical
Sarmah, Pallabi	Medical Officer	Medical
Gohain, B. B.	Sr. Security Officer	Security

Scientific Staff (Group A)

Name	Designation	Department/Centre
Das, S.	Sr. Technical Officer	Electronics and Electrical Engineering
Dutta, P. K.	Sr. Technical Officer	Computer and Communication Centre
Sharma, L. N.	Sr. Technical Officer	Electronics and Electrical Engineering
Acharyya, K.	Technical Officer Gr. I	Nanotechnology
Barbora, L.	Technical Officer Gr. I	Centre for Energy
Borah, B.	Technical Officer Gr. I	Computer Science and Engineering
Borah, M. M.	Technical Officer Gr. I	Computer and Communication Centre
Borgohain, C.	Technical Officer Gr. I	Central Instruments Facility
Borsaikia, A. C.	Technical Officer Gr. I	Civil Engineering
Das, B.	Technical Officer Gr. I	Chemistry
Das, M. P.	Technical Officer Gr. I	Electronics and Electrical Engineering
Das, P.	Technical Officer Gr. I	Nanotechnology
Das, S.	Technical Officer Gr. I	Computer and Communication Centre
Deka, D.	Technical Officer Gr. I	Centre for the Environment
Ghosh, J. K.	Technical Officer Gr. I	Computer and Communication Centre
Inam, I.	Technical Officer Gr. I	Computer and Communication Centre
Islam, J.	Technical Officer Gr. I	Computer and Communication Centre
Kachari, N. A.	Technical Officer Gr. I	Computer Science and Engineering
Kalita, R.	Technical Officer Gr. I	Chemical Engineering
Paul, P.	Technical Officer Gr. I	Mechanical Engineering
S. Josephine	Technical Officer Gr. I	Electronics and Electrical Engineering
Saikia, G. K.	Technical Officer Gr. I	Computer and Communication Centre
Saikia, J.	Technical Officer Gr. I	Civil Engineering
Saikia, R.	Technical Officer Gr. I	Mechanical Engineering
Sarma, S.	Technical Officer Gr. I	Physics
Senapati, K. K.	Technical Officer Gr. I	Central Instruments Facility
Baruah, A. M.	Technical Officer Gr. II	Chemistry
Baruah, D.	Technical Officer Gr. II	Centre for Energy
Barua, P. B.	Technical Officer Gr. II	Electronics and Electrical Engineering
Biswanath, H.	Technical Officer Gr. II	Chemical Engineering
Bora, C. B.	Technical Officer Gr. II	Centre for Educational Technology
Bordoloi, D.	Technical Officer Gr. II	Mechanical Engineering
Chhetry, G.	Technical Officer Gr. II	Nanotechnology

Das, S.	Technical Officer Gr. II	Nanotechnology
Gogoi, D.	Technical Officer Gr. II	Central Instruments Facility
Kakati, J.	Technical Officer Gr. II	Mechanical Engineering
Kalita, A.	Technical Officer Gr. II	Physics
Kalita, K.	Technical Officer Gr. II	Civil Engineering
Kalita, S.	Technical Officer Gr. II	Civil Engineering
Kumar, P	Technical Officer Gr. II	Chemical Engineering
Kumari, N. K. P. (upto 31.12.2017)	Technical Officer Gr. II	Centre for the Environment
Pathak, D.	Technical Officer Gr. II	Computer and Communication Centre
Purkayastha, B. B.	Technical Officer Gr. II	Physics
Saikia, D.	Technical Officer Gr. II	Computer and Communication Centre
Sarma, A.	Technical Officer Gr. II	Electronics and Electrical Engineering
Sevda, S.	Technical Officer Gr. II	Biosciences and Bioengineering
Sharma, H.	Technical Officer Gr. II	Design
Tamuli, B.	Technical Officer Gr. II	Design
Dutta, R. C.	Asst. Physical Education Officer	Gymkhana
Saikia, D.	Asst. Physical Education Officer	Gymkhana
Das, N. K.	Asst. Workshop Supdt.	Mechanical Engineering
Das, N.	Students' Counsellor	Students' Affairs
Chowdhury, P. B.	Students' Counsellor	Students' Affairs
Rynjah, N. N.	Students' Counsellor	Students' Affairs

Appendix–III

DEGREE AWARDEES

In the 19th Convocation held on 23 June 2017, a total number of 1308 students received their BTech, BDes, MA, MSc, MTech, MDes, MS(R) and PhD degrees as given below:

Programme	Degree Awarded
BTech/BDes	
Biotechnology	43
Chemical Engineering	59
Chemical Science and Technology	45
Civil Engineering	63
Computer Science and Engineering	88
Design	36
Electronics and Communication Engineering	76
Electronics and Electrical Engineering	45
Engineering Physics	27
Mathematics and Computing	50
Mechanical Engineering	87
Total	619
MSc	
Chemistry	39
Mathematics and Computing	41
Physics	39
Total	119
MA	
Development Studies	20
Total	20

Programme	Degree Awarded
MTech/MDes	
Biotechnology	28
Chemical Engineering	47
Civil Engineering	96
Computer Science and Engineering	62
Design	27
Electronics and Electrical Engineering	45
Mechanical Engineering	85
Total	390
MS(R)	
Centre for Energy	5
Total	5
PhD	
Biosciences and Bioengineering	21
Chemistry	35
Chemical Engineering	10
Civil Engineering	12
Computer Science and Engineering	4
Design	1
Electronics and Electrical Engineering	20
Humanities and Social Sciences	13
Mechanical Engineering	13
Mathematics	10
Physics	11
Centre for Energy	3
Centre for the Environment	1
Centre for Nanotechnology	1
Total	155
Grand Total	1308

Gold and Silver Medalists

President of India Gold Medal

Venkat Arun

BTech (Computer Science and Engineering)

Silver Medals

Aparna Balagopalan

BTech (Electronics and Communication Engineering)

Bindhya Raj Ankit

BTech (Mechanical Engineering)

Vikash Kumar

BTech (Civil Engineering)

J Michael

BTech (Biotechnology)

Pawar Swanand Chandravadan

BTech (Chemical Engineering)

Sagnik Middya

BTech (Electronics and Electrical Engineering)

Nakul Yadav

BTech (Engineering Physics)

Himanshu Sehgal

BTech (Chemical Science and Technology)

Aditya Gupta

BTech (Mathematics and Computing)

Kohli Akkash Pavankumar

BDes (Design)

Bibhabasu De

MSc (Physics)

Reshmi Dani

MSc (Chemistry)

Priyanka Sen

MSc (Mathematics and Computing)

Shraddha Bhatia

MA (Development Studies)

Dr. Shankar Dayal Sharma Gold Medal

Rajat Lohia

BTech (Chemical Engineering)

List of students who have fulfilled the requirements for award of B.Tech. degree in Computer Science and Engineering

Sl. No	Roll No	Name
1.	130101001	ABHINAV SONKAR
2.	130101003	AISHWARYA AGARWAL
3.	130101004	AJINKYA
4.	130101005	ALAMANDA NIKHIL TEJA
5.	130101006	ANEESH DASH
6.	130101007	ANIRUDH AGNIHOTRY
7.	130101009	ARNAV VOHRA
8.	130101010	ASHISH MITTAL
9.	130101011	AYUSH KUMAR
10.	130101012	AYUSH MANANIYA
11.	130101014	BEDAPUDI PRANEETH
12.	130101015	CHERUKURI SURYA TEJA
13.	130101016	CHETLURU REVANTH
14.	130101017	CHOUDHARY JITENDRA BABULAL
15.	130101018	DESH RAJ
16.	130101019	DIGANTA BARO
17.	130101020	DIVYESH SONI
18.	130101021	EESHANI MONDAL
19.	130101022	ELLORE AKHIL REDDY
20.	130101023	GHANSHYAM SINGH BADSARA
21.	130101024	GOPIDALAI DEEPAK KUMAR
22.	130101025	JAINAM DHANESH SHAH
23.	130101026	JATOTH BHARATH KUMAR
24.	130101027	JONDHALE SHRADHA SANGRAM
25.	130101028	K SOWMYA
26.	130101029	KALAVAGUNTA ANKIT SAI
27.	130101031	KAMIDI PREETHAM
28.	130101032	KANAME GANESH ATMARAM
29.	130101033	KANHAIYA RATHI
30.	130101034	KARNATI JAYADEEP
31.	130101035	KATTA VENKATA SATISH
32.	130101036	KENIL TANNA
33.	130101037	KODALI HARI KRISHNA SAI
34.	130101038	KOSARAJU DIMPLE RAJA VAMSI
35.	130101040	KSHITIZ AGRAWAL
36.	130101041	KUMBHALWAR SAMYAK JAGDISH
37.	130101042	KUNAL JAIN
38.	130101043	LAKHINENA BHAVANA
39.	130101045	MARYADA DURGA VARA PRASAD REDDY
40.	130101046	MEKALA SAI AKHIL TEJA
41.	130101047	MIDHUL VARMA VUPPALAPATI
42.	130101048	MOHIT CHHAJED
43.	130101049	MRINAL TAK
44.	130101050	N. RAHUL
45.	130101051	NAMAN JAIN
46.	130101053	NIDAMANURI PAVANESWAR KUMAR
47.	130101054	NIKHIL AGARWAL
48.	130101055	NIKIT BEGWANI
49.	130101056	PIYUSH KEDIA
50.	130101057	POLAMARASETTY AKHIL
51.	130101059	PRATEEK RAISINGHANI

52.	130101060	PRITAM SARKAR
53.	130101061	RAHUL KUMAR GOND
54.	130101062	SUMEET SATISH RANKA
55.	130101063	RAVI GUPTA
56.	130101064	RAVI KUMAR
57.	130101065	RISHABH DUBEY
58.	130101066	ROHAN GUPTA
59.	130101067	ROHIT DHAN
60.	130101069	SAYANTAN DAS
61.	130101070	SHASHANK SUMAN
62.	130101071	SHIVAM LAKHOTIA
63.	130101072	SIDDHARTH KUMAR
64.	130101073	SITARAM MITHARWAL
65.	130101075	TARUN SHARMA
66.	130101076	VANDANA BHANU PRAKASH
67.	130101077	VARUN RAJ
68.	130101079	VIVEK KUMAR
69.	130101080	YASH MEHTA
70.	130101081	YELLAMELLI PALLAVI
71.	130101082	KUSHAL CHAWLA
72.	130101083	ABHILASHA SANCHETI
73.	130101084	DUDDU SAI MEHER KARTHIK
74.	130101085	VENKAT ARUN
75.	130101086	MAYANK GUPTA
76.	130101087	PRABODH SHETTY
77.	130101088	AKASHDEEP GOSWAMI
78.	130101089	SWETA AGRAWAL
79.	10010169	VIMAL BHUSHAN CHOUDHARY
80.	11010151	PERABATHINI MONIKA SRINIVAS
81.	11010163	SHASHI KANT
82.	120101005	AJAYPAL SINGH
83.	120101011	AVESH KUMAR MEENA
84.	120101015	BEDANTA BASUMATARY
85.	120101019	DEVARAKONDA UDAY KUMAR
86.	120101031	KATRAVATH MANOJ
87.	120101033	KETHA PRASANTH
88.	120101061	ROHITASHVA KUMAR MEENA

List of students who have fulfilled the requirements for award of B.Tech. degree in Electronics and Communication Engineering

Sl. No	Roll No	Name
1.	130102001	AARRUSHI SHANDILYA
2.	130102002	ABHINAV ANAND
3.	130102003	ABINASH PATRA
4.	130102004	ADESH RAJ
5.	130102005	ADITYA SIDDHANT
6.	130102007	AKHIL KANSAL
7.	130102008	ANEM CHANDRA KIRAN
8.	130102009	ANKIT SINGH
9.	130102010	ARINDOM DEURI
10.	130102012	ASHISH KUMAR
11.	130102013	AYUSH GUPTA
12.	130102014	AYUSH VIJAY
13.	130102015	BEGARI SHIVA KUMAR

14.	130102017	CHINNA OBIREDY VARSHA
15.	130102018	CHIRRA SRIKAR
16.	130102019	DHARMENDRA MEENA
17.	130102021	GAURAV KUMAR
18.	130102022	GUNUPUDI HEMANTH
19.	130102023	HARIHARAN M
20.	130102024	HEMANT KUMAR
21.	130102025	HUNAR JAIN
22.	130102026	IMMIDISSETTI RAKHIL
23.	130102027	J M S ROHITH
24.	130102028	JITENDRA SINGH
25.	130102029	KANDE RAHUL
26.	130102030	KARNATI BHARGAVI
27.	130102031	KARRA SAMANTH REDDY
28.	130102032	KARTIK BHARGAVA
29.	130102033	KOLLA PAVAN KUMAR
30.	130102035	MACHEPALLI B V SRI HARSHA
31.	130102037	MAYANK GOLHAR
32.	130102039	MOHIT GUPTA
33.	130102040	MOON VRUSHABH ISHWAR
34.	130102041	MOPIDEVI AJAY NARASIMHA
35.	130102042	N VENKATA RAMANA
36.	130102044	NELAVELLI ROHIT
37.	130102045	NISHANT KUMAR
38.	130102046	PADALA SHASHANK
39.	130102048	PAWAN KUMAR SHAW
40.	130102049	PENAGANTI YOSHITHA
41.	130102050	RAGHAV GULATI
42.	130102052	RAMAN SACHAN
43.	130102053	RAPOLU KARTHIK KUMAR
44.	130102054	RAVI SHEKHAR JHA
45.	130102056	SAHARE SHREYASH KAVIKUMAR
46.	130102057	SAI TEJA BURUGUPALLI
47.	130102058	SAURABH KUMAR SHASHIDHAR
48.	130102059	SAURABH MEENA
49.	130102062	SHASHI KUMAR
50.	130102063	SHIKHAR GUPTA
51.	130102064	SHUBHAM BANSAL
52.	130102066	SOHAM BANERJEE
53.	130102069	TADI SATYA VENKATA BHUPATHI RAJU
54.	130102070	TALLAM VAMSI
55.	130102071	TAPAN PANDEY
56.	130102072	THIRANDAS SAICHARAN
57.	130102074	VISHWANATH PRATAP SINGH
58.	130102075	MANAN GUPTA
59.	130102076	ABHINAV SHARMA
60.	130102077	SUMEHA KASHYAP
61.	130102078	DEEPA SREE M
62.	130102079	VASAVI MADHURIMA B
63.	130102080	HARSHAL PAUNIKAR
64.	130102081	APARNA BALAGOPALAN
65.	130102082	SHEZAN ROHINTON MIRZAN
66.	130102083	JACOB JOHN JOHNSON
67.	130102084	YOGESH BANSAL
68.	130102085	RISHABH SINGH
69.	11010211	ANIRUDH BIRKH

70.	11010231	HEMRAJ MEENA
71.	120102016	BHAVYA TAK
72.	120102020	DEEPAK GAUTAM
73.	120102040	PAIKE VISHAL VIJAY
74.	120102043	PIYUSH YADAV
75.	120102049	PRIYA AROHI
76.	120102066	TUSHAR MEWARA

List of students who have fulfilled the requirements for award of B.Tech. degree in Mechanical Engineering

Sl. No	Roll No	Name
1.	130103001	AAKASH JAIN
2.	130103002	ABHISHEK PAWAR
3.	130103003	ABHISHEK RAJ
4.	130103004	ADITYA KUMAR
5.	130103005	ALOK RANJAN
6.	130103006	AMAN GUPTA
7.	130103007	AMIT ARYA
8.	130103008	ANIKET SHINGEWAD
9.	130103009	ANIRUDH YADAV
10.	130103010	ANKIT CHAMARIA
11.	130103011	ANSHUL GOYAL
12.	130103012	ANURAG VIJ
13.	130103013	ARINDAM KALITA
14.	130103015	ATMAN PATEL
15.	130103016	ATTIQUE UZ ZAMMA
16.	130103017	ATUL TIWARI
17.	130103019	BHUPENDRA SINGH DHAKAD
18.	130103020	BIKASH KUMAR NAIK
19.	130103021	BINDHYA RAJ ANKIT
20.	130103022	BIRPRATAP KUMAR SINGH
21.	130103023	DEEPAK KUMAR LODHI
22.	130103024	DEEPAK KUMAR PATEL
23.	130103025	DHRUV SABHARWAL
24.	130103027	GAIKAR PRANIT BHAUSAHEB
25.	130103028	GAURAV AGRAWAL
26.	130103029	GAURAV GAVASKAR
27.	130103031	GAURAV KUMAR
28.	130103032	GAURAV RAMPURIA
29.	130103033	GUGGILLA ROHITH
30.	130103034	GUNAJEET DAS
31.	130103035	KANISHK CHATURVEDI
32.	130103036	KAPIL
33.	130103037	KARMESH YADAV
34.	130103038	KHOBRAGADE ABHILASH NARENDRA
35.	130103041	LAV MITTAL
36.	130103042	LAVESH DALMIYA
37.	130103043	MALLIDI RAVINDRA REDDY
38.	130103044	MANISH HALOI
39.	130103046	MINKUSH KANSAL
40.	130103047	MOHAMMAD IRSHAD ALI
41.	130103048	MOHD SARFARAZ
42.	130103049	ONGOLE PREETHAM
43.	130103050	PAREPALLI SRAVAN KUMAR
44.	130103051	PARTH TIWARI

45.	130103052	PARUNANDI KARTHIKEYA SHARMA
46.	130103053	PHADTE SIDDHANT PREMANAND
47.	130103054	PONNAPOOLA NAVEEN
48.	130103055	PRASHANT GOTHREEWAL
49.	130103056	PUDOTA IGNATIUS RAVI KUMAR
50.	130103057	RAHUL KUMAR
51.	130103058	RAVINANADAN GUPTA
52.	130103059	RISHAB GUPTA
53.	130103060	RISHAV RAI
54.	130103061	ROHIT SURESH MURTHY
55.	130103062	SAANWRA KHOD
56.	130103063	SANJEEV KUMAR
57.	130103065	SATYAVEER SINGH GURJAR
58.	130103067	SHIV DAYAL MEENA
59.	130103068	SHIVAM LOHIA
60.	130103069	SHREYAS GUPTA
61.	130103070	SHUBHAM ANAND
62.	130103071	SHUBHAM DEWANGAN
63.	130103072	SHUBHAM MAHESHWARI
64.	130103073	SOURAV MISHRA
65.	130103074	SUBRAT KUMAR
66.	130103075	SUNKARA BHARGAVA
67.	130103076	TORLAKONDA SAI KISHORE
68.	130103077	TOTA SUMANTH
69.	130103078	V CHANDRASEKHAR JAYAMANGALA
70.	130103079	V MOHANA SRI SESA SAI
71.	130103080	YOGESH MITTAL
72.	130103081	ABHISHEK CHATTERJEE
73.	130103082	RAUNAK SINGH RANA
74.	130103083	SHOBHIT GUPTA
75.	130103084	SHIVANSHU CHAUHAN
76.	130103085	ROHIT TAYAL
77.	130103086	DIVYANSHU MISHRA
78.	130103087	SACHIN TYAGI
79.	130103088	RANJAN ARORA
80.	130103089	ADESH GAUTAM
81.	09010362	VIKAS GODARA
82.	120103023	BAILKE PIYUSH PAVAN
83.	120103035	K A ANEEZ
84.	120103050	PRAVEEN KUMAR MEENA
85.	120103051	RAHUL KUMAR
86.	120103058	SAMYAK KHOBRAGADE
87.	120103064	SOMENDRA SINGH PATEL

List of students who have fulfilled the requirements for award of B.Tech. degree in Civil Engineering

Sl. No	Roll No	Name
1.	130104003	ADITYA KUMAR
2.	130104004	ADITYA RAJ CHHAOCHHARIA
3.	130104005	ALOK RANJAN
4.	130104007	ANKIT GAUTAM
5.	130104008	ANKIT KUMAR SONI
6.	130104009	ANKIT MEENA
7.	130104011	ANUJ KUMAR TIWARI
8.	130104012	ARKA DAS

9.	130104013	ARUN VERMA
10.	130104014	ASHISH KUMAR BAIRWA
11.	130104015	ASHOK KUMAR MEENA
12.	130104016	AYUSH DUGAR
13.	130104017	BHAVISHYA
14.	130104018	BOKKISA SRINIVAS VIVEK
15.	130104019	CHANDRAPRAKASH MEENA
16.	130104020	DADUL ISLAM
17.	130104021	DAYA SANKAR YADAV
18.	130104022	DEVESH GUPTA
19.	130104024	HARIOM MEENA
20.	130104025	HARPREET SINGH
21.	130104026	INUMULA PRANEETH KUMAR
22.	130104029	KESHAV KOTHARI
23.	130104030	KESHAV VERMA
24.	130104032	KURUGODU HARSHA VARDHAN
25.	130104034	MANISH KUMAR MEENA
26.	130104035	MANISH SINGHARIYA
27.	130104036	MANU MODI
28.	130104038	MEKALA RAHUL KRISHNA
29.	130104039	MONU KUMAR
30.	130104040	MUDIT MITTAL
31.	130104041	NEERAJ KUMAR JAREDA
32.	130104042	NITIN SINGH
33.	130104043	P VELU
34.	130104044	PARSI SAI SHARATH
35.	130104045	PIYUSH MEHTA
36.	130104046	PRAGYA CHANSORIYA
37.	130104047	PRANAV PATNI
38.	130104048	PRASHANK SINGH YADAV
39.	130104049	RAHUL SHARMA
40.	130104050	RAJAN YADAV
41.	130104052	RAUSHAN KUMAR
42.	130104054	RISHABH JAIN
43.	130104056	RITU YADAV
44.	130104057	SAKET RAHANGDALE
45.	130104058	SAKET UPADHYAY
46.	130104059	SAROJ KUMAR SINGH
47.	130104060	SHASHWAT SAURAV
48.	130104061	SHASHWAT SHUBHAM MOHANTA
49.	130104062	SHEKHAR KUMAR
50.	130104064	SHUBHAM PATEL
51.	130104066	SUBHAM TAYAL
52.	130104067	SUMIT KUMAR
53.	130104068	SUNIL BANDAWALA
54.	130104069	SURAJ KUMAR NAYAK
55.	130104071	TUSHAR RANJAN
56.	130104072	UJJWALA GUPTA
57.	130104073	VAIBHAV AGARWAL
58.	130104075	VIKASH KUMAR
59.	130104076	VINAY KUMAR
60.	130104077	VISHAL KASHYAP
61.	130104079	VIVEK VARDHAN MADDALI
62.	130104080	YAKSH CHAUDHARY
63.	120104037	KULDEEP GARG

List of students who have fulfilled the requirements for award of B.Tech. degree in Biotechnology

Sl. No	Roll No	Name
1.	130106001	ABHIGYAN KHAUND
2.	130106003	AKSHAY KUMAR
3.	130106004	ANIP ANAND
4.	130106006	ANKIT KUMAR SINHA
5.	130106007	ARANSHA HAZOARY
6.	130106008	ASHOK CHAUDHARY
7.	130106009	ASHOK SINGH YADAV
8.	130106010	AVIRAL JAISWAL
9.	130106011	BHUSHAN SURESH WAGH
10.	130106013	CHINNI LEELA MANOHAR
11.	130106014	CIDDU ROHITH
12.	130106016	DINESH KUMAR KUMAWAT
13.	130106017	DISHI ARORA
14.	130106019	GIRNAR GOYAL
15.	130106020	HIMANSHU RANJAN
16.	130106021	J MICHAEL
17.	130106023	JAIN SHREYANS MAYANK
18.	130106024	KRISHAN KUMAR
19.	130106025	KUMAR PIYUSH SHEKHAR
20.	130106027	MANDAL AMARTYA ACHIN
21.	130106028	MUDIT GUPTA
22.	130106029	MURARI JHA
23.	130106030	PALLAVI BENAWRI
24.	130106031	PROBHONJON BARUAH
25.	130106032	RAMNARAYAN
26.	130106033	RAYALACHERUVU NIKHILA
27.	130106035	S. MANOJ KUMAR
28.	130106036	SADANAND KUMAR
29.	130106037	SARASWATHI SAKETH RAJU
30.	130106038	SARTHAK SHARMA
31.	130106039	SHALINI SINHA
32.	130106041	SHIBLAL NAMADAS
33.	130106043	SHRAVAN CHOUDHARY
34.	130106044	SHUBHAM VERMA
35.	130106045	SONALI TOMAR
36.	130106047	SURAJ KUMAR
37.	130106048	TUSHAR DUBEY
38.	130106049	UTPAL DEORI
39.	130106051	VINAY JAIN
40.	130106052	WASEEM AHMAD BHAT
41.	08010601	ABHAS JANGRE
42.	120106040	SANDEEP KUMAR MEENA
43.	120106043	SANNY KUMAR

List of students who have fulfilled the requirements for award of B.Tech. degree in Chemical Engineering

Sl. No	Roll No	Name
1.	130107001	ADARSH GAUTAM SENAPATI
2.	130107004	AKANKSHA DHAYAL
3.	130107005	AKASH SAHU
4.	130107006	AKSHAY KUMAR

5.	130107007	ANUGU SATHYA SAI
6.	130107008	ARZOO
7.	130107009	AVINASH KUMAR
8.	130107010	BISWAJIT BAISHYA
9.	130107011	CHANDRA SEKHAR AJAY A
10.	130107013	DEVARAPALLI SUDARSHAN
11.	130107014	DHRUV GUPTA
12.	130107015	DIPANKAR BASUMATARY
13.	130107016	DIVA CHAND DIVAKAR
14.	130107017	DONDETI JAGADEESH
15.	130107018	GOKUL C.V
16.	130107019	GOURAV SAINI
17.	130107020	HANSRAJ PILANIA
18.	130107021	HARSHIT MITTAL
19.	130107022	HIMANSHU MEHTA
20.	130107023	ISHAN SHARMA
21.	130107025	JALAJ GARG
22.	130107026	JANARDAN MALAV
23.	130107027	JASPREET SINGH GAGA
24.	130107028	KALAVAGUNTA MANIKANTA PRAVEEN
25.	130107029	KARAN NAHAR
26.	130107030	KHOBRADE PANCHASHIL PRUTHVIRAJ
27.	130107031	LAKHAN SINGH MEENA
28.	130107033	MUNDHADA YASH SOMESHWAR
29.	130107035	NAYAN GUPTA
30.	130107037	NIRAJ CHETRY
31.	130107039	NITU VERMA
32.	130107040	PANKAJ GOYAL
33.	130107041	PAWAN KUMAR
34.	130107042	PAWAR SWANAND CHANDRAVADAN
35.	130107043	RAHUL KUMAR
36.	130107044	RAJAT LOHIA
37.	130107045	RAVINDRA KHOJA
38.	130107047	SANGANI CHAITANYA
39.	130107049	SHAON SUTRADHAR
40.	130107052	SHREYAS GAJPAL
41.	130107053	SHUBHAM BHAURAO GAJBHE
42.	130107054	SHUBHAM SANGROLA
43.	130107055	SHUBHAM SHAKERGAYEN
44.	130107056	SIDDHANT SUNIL MAHESHA
45.	130107057	SIDDHARTH KHADIYA
46.	130107060	SONU KUMAR
47.	130107062	SUNIL KUMAR MEENA
48.	130107063	SUNIL SHANKHALA
49.	130107065	VARNIKA MENGHNANI
50.	130107066	VETAL VIVEK KAILAS
51.	130107067	VIKASH KUMAR CHOURASIA
52.	130107068	VIVEK
53.	09010724	KANKIPATI KIRAN KUMAR
54.	120107006	AMIT KUMAR
55.	120107038	PIYUSH DAYANI
56.	120107042	RAHUL KUMAR
57.	120107048	SAKHAMURI JAIKAR
58.	120107057	SHREYANSH SINGH
59.	120107059	SINGO BESRA

List of students who have fulfilled the requirements for award of B.Tech. degree in Electronics and Electrical Engineering

Sl. No	Roll No	Name
1.	130108001	PERUGU BHUVANNA CHAITANYA REDDY
2.	130108002	MUDIREDDY HRUDAY KUMAR REDDY
3.	130108003	TANUJ AGARWAL
4.	130108004	MANI RANJAN PANDEY
5.	130108005	DACHARAJU SAI DINESH
6.	130108006	MUNUGOTI SAI DILEEP
7.	130108008	GOYAL HEMANG RAJESHBHAI
8.	130108009	KESHAV KUMAR TAPARIA
9.	130108010	AMIREDDY MANOJREDDY
10.	130108012	PIYUSH RAI
11.	130108014	JAYANTHI SAI MURALIDHAR
12.	130108015	NEERAJ SHARMA
13.	130108016	GOGIREDDY MURALIDHAR REDDY
14.	130108018	YASH BAPNA
15.	130108019	LAVISH YADAV
16.	130108020	RISHI SREEDHAR
17.	130108021	ANKIT KUMAR
18.	130108022	SHANU KUMAR
19.	130108023	PERAVALI H V SRI SAI RAM
20.	130108024	PEDDAKOTA VIKASH
21.	130108025	VIVEK KUMAR PATIDAR
22.	130108026	ANKIT KUMAR WAGADRE
23.	130108027	CHOWDAM KALYAN
24.	130108028	RAVI RANJAN
25.	130108029	MOHAMMED SUHAIL
26.	130108030	NAMA PRANAY NARESH
27.	130108031	ASAD ALI
28.	130108032	VISHAL
29.	130108033	ABHISHEK CHOUHAN
30.	130108034	BHASME SNEHAL WALMIK
31.	130108037	GAJENDRA NAWAL
32.	130108038	MOHAN LAL
33.	130108041	UDDIPTA DEURI
34.	130108042	SAGAR KACHHAP
35.	130108043	MAYANK SINGAL
36.	130108044	SAGNIK MIDDYA
37.	130108045	MEGHA AGARWAL
38.	130108046	NISHU GUPTA
39.	130108047	ABHINANDAN KUMAR ARYA
40.	130108048	SANJEEV KUMAR SINGH
41.	130108049	CHANDRA PRAKASH SINGH
42.	11010814	GOKAMALLA SHILPA
43.	11010834	SOURABH KUMAR
44.	120108008	AMGOTH SAIRAMKOTI
45.	120108033	SHAILENDRA ANANT

List of students who have fulfilled the requirements for award of B.Tech. degree in Engineering Physics

Sl. No	Roll No	Name
1.	130121001	ABHISHEK MAJUMDAR

2.	130121002	AJAY MEHNDIRATTA
3.	130121006	ATULYA JAIN
4.	130121010	C M LOKESH
5.	130121015	JITENDRA MEENA
6.	130121016	MANVENDRA SINGH NARWAR
7.	130121017	MILIND SINGH
8.	130121018	MOHSIN KHAN
9.	130121019	NAKUL YADAV
10.	130121020	NAVIN KUMAR VERMA
11.	130121022	PIYUSH ANAND JEENA
12.	130121023	PRABAL DWEET KHANIKAR
13.	130121026	RAHUL
14.	130121027	RAVJOT SINGH KOHLI
15.	130121028	RISHABH JANGIR
16.	130121031	ROHIT YADAV
17.	130121033	SAURABH ISHWAR BORKAR
18.	130121034	SHANTANU KUSHAWAHA
19.	130121037	SRI MOUNICA KALIDASU
20.	130121039	TAHA BARWAHWALA
21.	130121040	THIRUNALVELI HARISH
22.	130121042	VARUN MAHENDRA CHATURMUTHA
23.	130121044	VIKAS GUPTA
24.	130121045	VIKRAM SINGH
25.	10012135	VEERAVALLI NAVEEN
26.	120121016	KANOJIA DIKSHANT DEEPAK
27.	120121034	SAMPREET KALITA

List of students who have fulfilled the requirements for award of B.Tech.degree in Chemical Science and Technology

Sl. No	Roll No	Name
1.	130122001	ABHAY KUMAR YADAV
2.	130122002	ABHIJEET ANAND
3.	130122003	ADITI GUPTA
4.	130122004	ADITYA
5.	130122005	AJAY KRISHNA R
6.	130122006	ANSHUL GUPTA
7.	130122007	ANURAG PAREEK
8.	130122009	ARVIND KUMAR GUPTA
9.	130122010	AWANISH JHA
10.	130122011	BANOTH KAMAL NAIK
11.	130122012	BANSHAJ
12.	130122015	DEVENDRA KUMAR PAREWA
13.	130122016	DINESH GODARA
14.	130122017	DULTON GHOSH
15.	130122018	GAURAV KUMAR SINGH
16.	130122019	GIRISH PRATAP SINGH
17.	130122020	HARSH JASANI
18.	130122021	HIMAKSHI BARSIWAL
19.	130122022	HIMANSHU SEHGAL
20.	130122023	HIMANSHU SINGH
21.	130122024	KALLURU HARSHAVARDHAN REDDY
22.	130122025	KUMAR SNEHIT
23.	130122027	KUSHAL ARORA
24.	130122029	MADIBOYINA PREM CHAND YADAV

25.	130122030	NIRMAL KUMAR
26.	130122031	NISHANT CHAUDHARY
27.	130122032	POOJA KUMARI
28.	130122033	PRADEEP NAGAR
29.	130122034	RAJAT RAUT
30.	130122036	RISHABH SHUKLA
31.	130122039	SANKHO ROY
32.	130122041	SHIVAM DUBEY
33.	130122042	SISODIYA ADITYA AJAYSINGH
34.	130122043	SRIJAN SHARMA
35.	130122044	V PRATHEEK
36.	130122045	VISHAL KUMAR PATEL
37.	130122046	W CHINGMEI WANGSA KONYAK
38.	11012226	ROHIT RAJ JALHERIA
39.	11012236	SUNIT KAKATI
40.	120122007	ATHIRALA VAMSI KRISHNA
41.	120122008	ATIF AYUB
42.	120122013	GAURAV MEENA
43.	120122016	JESON FLOURISH E
44.	120122017	KADAM AMAR SANJAY
45.	120122034	SANTRAM MEENA

List of students who have fulfilled the requirements for award of B.Tech. degree in Mathematics and Computing

Sl. No	Roll No	Name
1.	130123003	ADITYA SHARMA
2.	130123005	AKSHIT JAIN
3.	130123006	ANSHUL JUNEJA
4.	130123007	ANURAG SHAILENDRA KHANDAGLE
5.	130123008	APOORV NANDAN
6.	130123009	ARPIT PADWEKAR
7.	130123010	ATUL KUMAR
8.	130123011	BHATTAD MADHUR GOVIND
9.	130123012	CHADARAM SURYA SAI SNEHIT
10.	130123013	CHAWARE MUKUL DILIP
11.	130123014	DEEPANSH SONI
12.	130123016	GAURAV JAIN
13.	130123017	GUNTAKA RAVITEJA REDDY
14.	130123018	HARIKRISHNAN M
15.	130123023	NIMMAGADDA SITHAL
16.	130123025	PARULEKAR ATHARVA MAHENDRA
17.	130123026	PIYUSH PARITOSH
18.	130123027	PRIYANSHU CHANDRA
19.	130123028	RACHIT JAIN
20.	130123029	RAGHAV SOMANI
21.	130123032	RISHI KUMAR
22.	130123033	ROHIT BHARTI
23.	130123034	SAUMIL HARIYANI
24.	130123035	SAURABH AGRAWAL
25.	130123036	SIDDHARTH ANAND
26.	130123037	THIMMASANI DINESH REDDY
27.	130123038	TUSHAR SIRCAR
28.	130123039	BHUVNESH GARG
29.	130123040	UTKARSH GUPTA
30.	130123043	VISHAL KUMAR

31.	130123044	RISHABH JOSHI
32.	130123045	SILVI PANDEY
33.	130123046	SHANTANU AGARWAL
34.	130123047	PRAKHAR SHUKLA
35.	130123048	ADITYA PRABHU
36.	130123049	RAJAT TAYA
37.	130123050	SHIVAM SACHDEVA
38.	130123051	ADITYA GUPTA
39.	07012321	SUBHASH ATAL
40.	10012305	AKHILESH CHANDRA PANDEY
41.	11012316	JALLY RAJENDRA PRASAD
42.	120123005	AMAN ROONWAL
43.	120123017	HARSH ABHISHEK
44.	120123018	HARSH DEEP
45.	120123020	JAISAL SINGH
46.	120123023	KUNAL KUMAR
47.	120123031	RAKESH KUMAR
48.	120123032	RAVI KANT THAKUR
49.	120123034	SHREYANSH SHARMA
50.	120123041	SOURAV SARKAR

List of students who have fulfilled the requirements for award of B.Des.degree in Design

Sl. No	Roll No	Name
1.	130205002	ADITYA KAUSHAL
2.	130205003	AKASH RAJ
3.	130205004	AKSHAT JAIN
4.	130205005	ALOK RATAN
5.	130205006	AMARVAJ LIKHITH
6.	130205007	ANUPAM RATHORE
7.	130205008	BANDILA SANDEEP
8.	130205009	CHARMIE KAPOOR
9.	130205010	CHINMAY ANAND
10.	130205011	DUPPANAGURTHY VENU GOPAL
11.	130205013	GAURAV AGARWAL
12.	130205014	HARISH VISHNOI
13.	130205015	HARMEET SINGH
14.	130205016	INJARAPU PRAVALHIKA
15.	130205017	JAGARAPU CHAKRI
16.	130205018	JAYANT JAIN
17.	130205019	JITHIN KRISHNA C T
18.	130205020	KARALE AJINKYA ASHOK
19.	130205021	KATRE KUNAL CHANDRASHEKHAR
20.	130205022	KOHLI AKKASH PAVANKUMAR
21.	130205023	KUSHAGRA KHANDELWAL
22.	130205025	PAWAN KUMAR
23.	130205026	PRANJAL SUTRADHAR
24.	130205028	RACHIT CHOPRA
25.	130205029	RAJAT KUMAR
26.	130205031	RANUJ KUMAR MILI
27.	130205032	RAUNAK BARANWAL
28.	130205033	ROOPAL GUPTA
29.	130205034	SAGAR MALIK
30.	130205035	SANYAM GOYAL
31.	130205039	SUNNY KUMAR

32.	130205040	SUPRABHO DHENKI
33.	130205041	TARANG AGARWALLA
34.	130205042	VIKRAM ADITYA
35.	10020530	NONGMAITHEM JYOTI DEVI
36.	120205002	ABHISHEK SHARMA

List of students who have fulfilled the requirements for award of M.Sc.degree in Physics

Sl.No	Roll No	Name
1.	152121001	ABHISHEK CHAKRABORTY
2.	152121002	ADITYA JAISWAL
3.	152121003	ANKIT KUMAR
4.	152121004	ARINDAM BISWAS
5.	152121007	ARYA DATTA
6.	152121008	ASHISH JAIN
7.	152121009	BHAGWAT SINGH CHOUHAN
8.	152121010	BIBHABASU DE
9.	152121011	CHIRANJIT KARMAKAR
10.	152121012	DEBASISH MONDAL
11.	152121013	DHANANJOY DAS
12.	152121014	DINESH SUBBA
13.	152121015	GAURAV SINGH
14.	152121018	KOUSHIK NASKAR
15.	152121020	MANASH BASAK
16.	152121022	MITHUN GHOSH
17.	152121024	NAVIN CHAURASIYA
18.	152121025	NISHANT BIRDI
19.	152121027	PARTHA DAS
20.	152121028	PAWAN KUMAR KULDEEP
21.	152121029	PAYEL SARKAR
22.	152121030	PRADIP NANDI
23.	152121031	PRAGJYOTISH BHUYAN GOGOI
24.	152121032	PRAGNA DAS
25.	152121033	PRASUN DAS
26.	152121034	PRAVEEN KUMAR
27.	152121036	RITESH GHOSH
28.	152121037	SAHEL DEY
29.	152121038	SAPTARSHI SAHA
30.	152121040	SATYABRATA BERA
31.	152121043	SUBHADIP JANA
32.	152121044	SUDHAKANTHA GIRMOSHANTA
33.	152121045	SUJAN MAITY
34.	152121046	SUMAN DOLUI
35.	152121047	SURAJ KR. SAHA MONDAL
36.	152121048	TARIT KUMAR MANDAL
37.	142121026	LUMLANG LYNGKHOI
38.	142121029	NEWLIFE RUNLEL
39.	142121031	PHLEGON SYNDAL

List of students who have fulfilled the requirements for award of M.Sc.degree in Chemistry

Sl.No	Roll No	Name
1.	152122001	ABHIK MANNA
2.	152122002	AHAD HOSSAIN

3.	152122003	AJEET KUMAR
4.	152122004	ANIRBAN BHATTACHARJEE
5.	152122005	ARUNAVA GHOSH
6.	152122006	BISWAJIT HUDAIT
7.	152122007	CHANDRIMA MAITRA
8.	152122008	DEBASHIS BARIK
9.	152122010	ENA SHARMA
10.	152122011	GAYATREE DOLEY
11.	152122012	HARENDER
12.	152122013	INDRANIL SETUA
13.	152122015	JUIN SAHA
14.	152122016	JYOTI GAHTORI
15.	152122018	KOMAL JAIN
16.	152122019	MITALI BORAH
17.	152122020	MRINAL BORO
18.	152122021	MUKTI BHUSAN DEY
19.	152122022	NIHAR RANJAN ROY
20.	152122026	PRIYA DAS
21.	152122027	PRIYANKA CHAUHAN
22.	152122028	RAJESH KUMAR
23.	152122029	RAJU KUMAR SINGH
24.	152122032	RESHMI DANI
25.	152122033	SABIR ALI MOLLA
26.	152122034	SAMPRIYA DAS
27.	152122035	SANTU RUIDAS
28.	152122036	SHEELBHADRA CHATTERJEE
29.	152122037	SOURAV SAIKIA
30.	152122038	SOURIK DAS
31.	152122039	SOUVIK RAY
32.	152122040	SUBHAYAN DAS
33.	152122041	SUBRATA PATRA
34.	152122042	SURAJIT DAS
35.	152122043	SURYA PRATAP VERMA
36.	152122045	TATHAGATA DATTA
37.	152122046	UMANG AGARWAL
38.	152122048	VINITA
39.	152122049	YOGESH KUMAR

List of students who have fulfilled the requirements for award of M.Sc.degree in Mathematics and Computing

Sl. No	Roll No	Name
1.	152123001	AJAY KUMAR PATEL
2.	152123002	AJIT SINGH
3.	152123004	ANUJ PAL
4.	152123005	ARVIND
5.	152123006	ASTHA
6.	152123007	BABULAL TUDU
7.	152123008	BIBHUTI DAS
8.	152123009	BIKSHAN CHAKRABORTY
9.	152123010	BIPLAB PRAMANICK
10.	152123011	BISWAS PRITISH AMAL
11.	152123012	DAFFI CHELSEA MAJAW
12.	152123013	GULAB PATEL

13.	152123017	KAMLESH KUMAR SAINI
14.	152123018	KOUSHIK KANTI BARMAN
15.	152123019	KUNAL VERMA
16.	152123020	KUWARI MAHANTA
17.	152123021	MALAY MANDAL
18.	152123023	MOLECULE MUKHERJEE
19.	152123024	MONU KADYAN
20.	152123025	MRITYUNJOY BARMAN
21.	152123029	PALAK ARORA
22.	152123031	PRATIBHA GUPTA
23.	152123032	PRIYANKA SEN
24.	152123033	RAJAT KUMAR PATEL
25.	152123034	RAVI PRAKASH TRIPATHI
26.	152123035	RICHA ARYA
27.	152123036	SAMADRITA BERA
28.	152123037	SANTANU DATTA
29.	152123040	SHIVAM KUMAR
30.	152123041	SHUBHAM JAIN
31.	152123042	SOHAN GHOSH
32.	152123043	SONAL JAIN
33.	152123044	SUBHAJIT PRAMANICK
34.	152123045	SUBHENDU BHANDARY
35.	152123046	SUVAJIT SANGIRI
36.	152123048	VINIT KUMAR
37.	142123011	GAGANDEEP NAIK
38.	142123015	JYOTISH KUMAR MECH
39.	142123019	MD MOTASIM BILLAH
40.	142123040	SOURAV SARKAR
41.	142123049	NIRANJAN KUMAR

List of students who have fulfilled the requirements for award of M.A.degree in Development Studies

Sl. No	Roll No	Name
1.	152241001	ADARSH KUMAR
2.	152241005	ANNA ELIAS
3.	152241007	BALLABI MANJUL
4.	152241011	FUNGKHA BASUMATARY
5.	152241012	HIMALAYA BORA
6.	152241014	JEMIMAH BASUMATARY
7.	152241016	KABITA HAZARIKA
8.	152241017	KABYASREE BARMAN
9.	152241018	KASHMIR LAHARI
10.	152241020	LIJA MERY RABHA
11.	152241022	MAYURI BHARALI
12.	152241023	MRIGAKHI RABHA
13.	152241024	PABITRA BASUMATARI
14.	152241026	PRAYASHI BORA
15.	152241028	RUSSELL MARKUS K SHALLAM
16.	152241029	SANJIVIR SINKU
17.	152241030	SARUP SINHA
18.	152241031	SHRADDHA BHATIA
19.	152241032	SMRITI REKHA SINGHA
20.	152241033	VARSHALI BRAHMA

List of students who have fulfilled the requirements for award of M.Tech. degree in Computer Science and Engineering

Sl. No	Roll No	Name	Project Title
1.	144101004	SAURABH GUPTA	Analysis of Network Traffic Matrix Using Motif Discovery
2.	144101009	SHIVAGUNDE SAROJ SNEHAL	Learning the Base Sets of Kernels in Multiple Kernel Learning
3.	144101010	VADGAMA VIBHUTI DINESHKUMAR	Spatio-Temporal Analysis of Network Traffic Flows using CCA
4.	144101011	AMIT KHANNA	Mechanism Design and Preference Aggregation over the Max Flow Problems
5.	144101026	RANJAN SARMAH	Event Detection from Multi-modal Multi-streams
6.	144101027	DIPIKA DEB	A Cost Effective Adaptive Routing Model for 2D Mesh NoC using onchip Transmission Lines
7.	144101028	SUMIT KUMAR	Energy Efficient Scheduling for Real Time Tasks on Multi Processors
8.	144101029	YASH KUMAR DEWANGAN	Dynamic selection of sink to increase the lifetime of WSN
9.	144101030	G V AKHIL	A routing mechanism in DTN using social metrics
10.	144101034	SALAMA U	Retrofitting Word Vectors to Semantic Lexicons in Biomedical Domain
11.	144101036	SHUBHANSHU SHARMA	Disambiguating Sentence Semantics using Word2Vec Model
12.	144101039	AMIT VERMA	Mechanism Design and Preference Aggregation over the Max Flow Problems
13.	144101040	RIJIL T R	A comparative evaluation of neural network models on event trigger detection
14.	144101041	LOITONGBAM GYANENDRO SINGH	Sentiment Lexicon Generation for Manipuri Language
15.	144101042	RAJLAKSHMI SAIKIA	Language Identification from Spoken Speech
16.	144101043	ARCHANA SHOKEEN	Minimization of Payment in Mechanism Design
17.	144101044	MADHUSUDAN MALIK	Constraint aware scheduling for application variants
18.	144101046	ABHIJIT GHARAMI	Reinforcement Learning Framework for DTN
19.	144101047	ABHAY V JOGEKAR	Automation of Academic Section of Indian Institute of Technology Guwahati
20.	144101048	KOKANE YOGESHWARI SUDHIR	3D Image Saliency using Convolutional Neural Network
21.	144101051	DAME LAPYNSAN LYN-GDOH	Automation of Academic Section of Indian Institute of Technology Guwahati
22.	144101053	DEVARAKONDA GOPAYYA	Fault Tolerant Logic Based Distribution Routing for NOCs
23.	144101058	MANDEEP SINGH RAI	Detection and Mitigation of Identity Spoofing Attacks and Denial of Service Attack in 802.11e Wireless Networks
24.	144101061	RAJASHREE KONWAR	A two layer hierarchy for peer-to-peer live video
25.	144101063	LENIN LALITONJAM	Understanding the Characteristics of Manipuri Language from Text Mining Perspective
26.	144101068	DHRUV GAUR	Multimodal Sentiment Analysis using Acoustic and Textual Features
27.	144101069	SREEJITH K P	Improved Bound for Unpopularity in Roommates Problem
28.	144101075	BILIYAN KUMAR PUJARI JEE	Computing Maximum Weighted Matching with Uncertainty
29.	144101078	SALKA MOSES DEBBARMA	Re-enforced On-Demand Intrusion Detection System
30.	154101006	HEMANT JOSHI	Comparative Study of Entity Role Detection Using HMM, CRF and LSTM
31.	154101007	SHRIDHAR RAVINDRA KULKARNI	Detection and Prevention of Overlapping Fragmentation Attack in 6LoWPAN

Sl. No	Roll No	Name	Project Title
32.	154101008	PRAKRITI MARWAHA	Single Image Super Resolution using Residual Learning
33.	154101009	AISHWARY JOSHI	Meeting Data Domain Diarization Using Multiple Feature Streams
34.	154101011	RAHUL SHIVNARAYAN MISHRA	A Distributed Epigenetic Shape Formation and Regeneration Algorithm for a Swarm of Robots
35.	154101013	OMKAR PRADEEP SALVI	Payment Function and Selection Rule for Max Flow Problem using r-out-of-k Set System
36.	154101015	MIHIR UTTAMKUMAR NANA-VATI	Political Landscape Analysis on Twitter
37.	154101017	VINAYAK KERBA JADHAV	WayOut: An Educational Game
38.	154101018	HEMANT PARASHAR	Cost of Incentive Compatibility in Path and Spanning Tree Auctions
39.	154101019	SAHIL MANCHANDA	Representation Learning of Drug and Disease Terms for Drug Repositioning
40.	154101020	RAHUL V S S PATCHIGOLLA	Biomedical event extraction using deep learning techniques
41.	154101021	SAWINDER KAUR	Energy Efficient Scheduling of Real -Time Tasks in Cloud
42.	154101022	MANASI SHRINIVAS SANT	Accent Recognition of Speakers Using I-vector Representation
43.	154101026	PARTHA PRITAM MAHANTA	A Control Path Based Resource Evaluation Strategy for Malware Detection in Embedded Systems
44.	154101029	SUPREETI KATIYAR	Stuck-pipe Problem Detection in Oil-Drilling Operations using Artificial Intelligence Techniques
45.	154101032	NITU GANGWAR	CARE: An IoT based System for Passenger Service and Comfort
46.	154101034	PRASHANT KUMAR	Estimation of Porosity from Seismic Data and Well Logs using Deep Learning
47.	154101035	KAVISH NARESHCHANDRA DAHEKAR	Large Scale Analysis of English Song Lyrics
48.	154101036	JAINENDRA KUMAR	Energy Efficient Migration Aware Proportional Fair Scheduling on Multiprocessors
49.	154101041	NIRAJ NAGLE	Real Time Transportation Mode Detection using Smart Phone Sensor's Data
50.	154101042	ALOK RANJAN KUMAR	Structure learning of gene regulatory network from large scale(high -dimensional) time-series gene expression data
51.	154101046	SANJAY MUJALDA	Single Image Super Resolution using CNN
52.	154101047	ALANKAR V UMDEKAR	Controlling Chip Temperature Using Task Migration in Conjunction with Frequency Scaling
53.	154101048	ADIT BHATIA	Implementation of Optimised Massive Terrain Rendering System for Military Applications
54.	154101049	ADISH WAMBURKAR	Social Media Mining for Army
55.	154101050	SUKANYA BHATTACHARJEE	Fault Tolerant Additive Weighted Geodesic Spanners
56.	154101058	PEDDAGUTTA TRINATH REDDY	2D PCA Stability and Choice of Dimensionality
57.	154101059	PRATYUSH VERMA	Energy Efficient Resource Provisioning Approaches for Scientific Workflow Executions in Cloud Environment
58.	154101061	SAURABH RAJENDRA KHATAVKAR	Mechanism Design and Frugality over Graph Optimisation Problems
59.	154101062	YEDULAPURAM TEJASRI	Modeling RTI Query Log data

List of students who have fulfilled the requirements for award of M.Tech. degree in Theoretical Computer Science

Sl. No	Roll No	Name	Project Title
1.	154101104	PROTYAI GHOSAL	Proof of a non-trivial lower bound in bit probe Model
2.	154101105	VIDYA SAGAR SHARMA	Proof of a non-trivial lower bound in bit probe Model
3.	154101107	DEVENDRA KUMAR BHARTI	Proof of a non-trivial lower bound in bit probe Model

List of students who have fulfilled the requirements for award of M.Tech. degree in Electronics and Electrical Engineering with Specialization in Signal Processing

Sl. No	Roll No	Name	Project Title
1.	144102012	VEERA PRASAD REDDY M	Identification of Medicinal Plants of Assam using Shape, Texture and Colour Features
2.	144102017	BISHSHOY DAS	Graph-based depth estimation of a single object in a monocular image using constrained 3D wire-frame models
3.	144102021	SANTOSHKUMAR GEDELA	Presentation Format Discovery in News Broadcast Videos
4.	144102023	ANKAMREDDY NARAYANA MURTHY	Illuminant colour based image forensics using Gamut Mapping
5.	144102024	YELLAPU SIVA KUMAR SWAMY	Program Genre Classification in News Broadcast Videos
6.	144102025	CHALLA RAMU	EYE GAZE ESTIMATION FOR VEHICULAR DRIVERS
7.	144102026	DANDI DURGA PRASAD	Video Segment Categorization in TV News Broadcasts using Ensemble of Classifiers
8.	144102061	ARAVINDH R	Speech Enhancement And Stress Analysis For Combat Field Environments
9.	144102062	CHANDRU M	Fusing Multiple copy-move Image Forensics using Dempster
10.	144102067	RUCHIKA	Cancer Classification of Histopathological Images
11.	154102030	PARUL UMESH TIPRI	System for Interactive Learning and Automated Diagnosis of ECG Signal

List of students who have fulfilled the requirements for award of M.Tech. degree in Electronics and Electrical Engineering with Specialization in VLSI

Sl. No	Roll No	Name	Project Title
1.	144102001	VADLAMUDI SINDHURA	Low Power Reconfigurable Filter Array for LTE Mobile Communication
2.	144102003	PATEL HARSH SHAILESHBHAI	Approximate Architecture for Error-resilient DSP Applications
3.	144102005	POKURI RAJYALAKSHMI	High Throughput VLSI Architecture for Deblocking Filter in HEVC
4.	144102007	DHARMENDRA KUMAR	An N-path BPF with Parametric Gain Boosting
5.	144102009	NAMATHOTI SIVA	Application specific multi-core processor design for real time applications
6.	144102010	ANUPAM BORO	Designing a System-on-Chip(SoC) for generating parameters for weather forecasting
7.	144102014	DIPANKAR BORA	Processor design for monitoring and prediction of seismic activities
8.	144102043	MANDEEP SINGH	Study of Electrical and transport properties of 2D materials
9.	144102068	SUSHANTA BORDOLOI	Study of MOSFET devices at ultra-low temperature
10.	144102069	SHIVA PURI GOSWAMI	SELF HEATING IN FINFET
11.	144102072	SAURAV ROY	Analytical Modeling of vertical Super-Thin Body Field Effect Transistor
12.	154102005	ANUSHREE ADHIKARI	Efficient VLSI Architecture of Reconfigurable FIR filter for Software Defined radio

List of students who have fulfilled the requirements for award of M.Tech. degree in Electronics and Electrical Engineering with Specialization in Communication Engineering

Sl. No	Roll No	Name	Project Title
1.	144102018	SHARUKH HASSAN	SECURE DELIVERY IN HIERARCHICAL CODED CACHING
2.	144102030	FORBILITY KHARMYNDAL	ON THE SOLVABILITY OF 5s/3t SUM-NETWORKS
3.	144102032	JANGA MANIKANTESWARA REDDY	Design of Antenna Elements and Arrays for Communication in Millimeter wave band
4.	144102035	RAVI SINGH	Download Cost of Private Information Retrieval
5.	144102036	ARJUN SINGH KHARAI	Coded Caching in Star Cache Network
6.	144102040	EEDUPALLI PUJITHA VENKATA SARANYA	Antenna Array Beamforming For Wireless Communication In Millimeter Wave Band
7.	144102044	POONAM CHANDRAKAR	Automatic Recognition of different digitally modulated signals
8.	144102047	ALAPU PREM DIWAKAR	Construction of codes for Distributed Storage System
9.	144102050	AJMEERA RAJU	Locally Repairable Codes Over Small Fields
10.	144102091	VINOD KUSHWAH	Differential quadrature phase shift keying using surface acoustic wave(SAW) devices
11.	154102038	SUSHMITHA REDDY G	Adaptive Distributed Storage Systems
12.	154102061	CHUNDURI VENKATA DHEERAJ KUMAR	Some results on linear network coding for extended M-networks
13.	154102076	ABHINANDAN DAS	Real Time Motion Tracking And Person

List of students who have fulfilled the requirements for award of M.Tech. degree in Electronics and Electrical Engineering with Specialization in Power and Control

Sl. No	Roll No	Name	Project Title
1.	144102051	JOSHI VIVEK VARDHAN	Integration of Solar PV and AC supply from renewable energy sources
2.	144102052	KUMAR GOVINDAM	Designing Sliding Mode Controller for Lateral Stability Improvement of Vehicles
3.	144102056	PRAMIT NANDI	Non-linear and Constant Switching frequency current control of grid connected voltage source inverter for Solar PV application
4.	144102057	DEEPANKAR KUMAR	Design and control of grid connected inverter
5.	144102064	KUMAR ABHINAV	Grid Integration of Wind Energy Conversion System with Unbalanced PCC voltages
6.	144102065	RAMYANI CHAKRABARTY	Predictive Current Control of Cascaded Multilevel Inverter based DSTATCOM
7.	144102066	AFREEN ISLAM	Controller Design for Flood Regulation
8.	144102071	RAJDIP DEY	Power Electronic Converters For Wind Energy Conversion Systems
9.	154102082	SAMI AL ISSA	Moving Object Tracking using a camera mounted on a 2-DOF Rabotee Platform

List of students who have fulfilled the requirements for award of M.Tech. degree in Mechanical Engineering with Specialization in Machine Design

Sl. No	Roll No	Name	Project Title
1.	144103001	RAJIDI SHASHIDHAR REDDY	An energy-based formulation for effective dynamic properties of piezoviscoelastic composites
2.	144103003	DEEPAK SABNANI	Finite Element Solid Modeling and Dynamic Analysis of Simple Rotor Systems With Experimental Validation

Sl. No	Roll No	Name	Project Title
3.	144103004	RISHABH SHARMA	Design of a Training Simulator for fall protection
4.	144103005	TARIGOPULA PRAVEEN KUMAR	Dynamic Analysis of Magneto Rheological Elastomer Cored sandwich plate using FEM
5.	144103007	ANJANI SHARMA	Balancing of a Flexible Rotor Levitated on Active Magnetic Bearings by Influence Coefficient Method
6.	144103010	AJAY RAJ K	Nonlinear Dynamic Analysis of Energy Harvester using Flow induced vibration
7.	144103013	MOHAMMAD SUHEL KHAN	Design and Development of Single DOF Manipulator using Antagonistic Shape Memory Alloy Wire Actuators
8.	144103015	CHAVAN ARUN TANAJI	Dynamic analysis of cracked functionally graded rotors
9.	144103017	MADHURJYA DEV CHOUDHURY	Design Methodology and Electromagnetic Modelling of a Bearingless Switched Reluctance Motor
10.	144103019	VIVEK CHAUDHARY	Implementation of Cavitation Boundary Condition for both Plain and Textured Bearing
11.	144103020	ANUP KUMAR	Manufacturing And Characterization Of Epoxy Based Composite Utilizing Waste Metal Chips And Bamboo
12.	144103022	E KIRAN KUMAR	Thermo-Mechanical Analysis of Shape Memory Alloy using Finite Element Method
13.	144103027	CHINMAY KUMAR TARAI	Online Estimation of Stress and Temperature of Shape Memory Alloy Wire Actuator using Extended Kalman Filter
14.	144103029	ASHISH JAT	Multi-Objective Optimization of Spherical Roller Bearings Using NSGAII Algorithm
15.	144103030	AMIT KUMAR	Three Dimensional FEM Analysis on Friction Stir Welding of Mild Steel Plates with Preheating
16.	144103031	TINKU SAIKIA	Thermo-mechanical analysis in micro plasma arc welding of thin sheet maraging steel
17.	144103056	KAVULURI YASWANTH	Development of expressions for optimal gage locations for various isotropic and orthotropic plates
18.	144103058	KARANDE AVINASH BAYAJI	Study of Smoothed Finite Element method for Analysis of two Dimensional Problems
19.	144103059	SOMNATH SINGROUL	Analysis of Elastohydrodynamic Journal Bearings
20.	144103068	AMAN KUMAR SHAKYA	Analysis Of Arbitrary Supported Piezoelectric Plate Using Extended Kantorovich Method
21.	144103074	MADAVI PRASHANT KESHAO	Finite Element Analysis of Rough Surface Contact
22.	144103105	RAJPAL SINGH	Experimental Investigation and Numerical Simulation of a Stress Wave Force Balance System
23.	144103107	AVILASH SAHOO	Design and development of a Remotely Operated Under water Vehicle
24.	144103109	SAURAV SUMAN	Prediction of welding Distortion in a large weld Structure
25.	144103110	PRABHAT KUMAR	Study of Enriched Contact Finite Elements for Dynamic Adhesive Contact Problems
26.	144103113	SHAIENDRA BOHARE	Rolling And Sliding Contact Behaviour Of Polyamide Composite
27.	154103002	REDEKAR RAHUL VIJAY-KUMAR	Force Estimation In Electromagnetic System Using Augmented Kalman Filter
28.	154103018	PRABHAKAR	Extended Kantorovich method for 2D Piezoelectricity solution of hybrid beam for energy harvesting purpose
29.	154103027	SUDHIR SABHARWAL	A Thermo-Hydrodynamic Analysis of Gas Foil Bearings
30.	154103028	WILSON PRASAD GUPTA	Implementation of Finite Element Solver on Graphics processing Units

Sl. No	Roll No	Name	Project Title
31.	154103118	TEDROS WELDEMICAEL TESFAY	Development of an Active Magnetic Bearing for High Speed Applications

List of students who have fulfilled the requirements for award of M.Tech. degree in Mechanical Engineering with Specialization in Fluids and Thermal Engineering

Sl. No	Roll No	Name	Project Title
1.	144103036	HARSHAL SRIVASTAVA	Stability analysis of entry flow in plane channel with viscous heating
2.	144103039	GURU PRASAD JENA	Prediction of trajectories and forces in low Reynolds number flows using immersed boundary method
3.	144103040	KULKARNI AMOL CHANDRAKANTRAO	Development of axisymmetric interfacial flow solver over an unstructured hybrid grid
4.	144103042	GOPAL KUMAR VERMA	Experimental Investigation on Cogasification of coal with biomass waste
5.	144103046	ARNAB LAHIRI	Numerical Study of Microscale Conduction Heat Transfer with or without Collimated Laser Irradiation
6.	144103047	NIRMAL M S	Numerical and experimental analysis of oxygen enriched combustion in Porous radiant burner
7.	144103048	KRISHNA KANT	Parallelization of Unstructured Grid CFD Solver
8.	144103049	AMIT KUMAR NAIK	Implementation of Isotropic Eddy Viscosity Turbulent Models over Hybrid Unstructured Grid
9.	144103051	DIKHSITA CHOUDHARY	Numerical Solution of Laminar Confined Mixing Process of Gaseous Species in a Wavy Channel
10.	144103052	SAYANTAN JANA	Influence of geometric configuration on performance of compressor driven metal hydride based cooling system
11.	144103054	BOROLE CHETAN TULSHIDAS	Computational Code Development for Simulation of Particle Sedimentation using Lattice Boltzmann Method
12.	144103057	MANISH SONKAR	Thermal sensors for short duration measurements
13.	144103060	BHOOPENDRA CHOUDHARY	Development and application of finite volume method based solver for double diffusion convection systems
14.	144103061	J SUNKU PRASAD	Performance Investigations of High Temperature cascade Thermal Energy Storage System
15.	144103066	VIPUL BABU MESH- RAM	A CFD analysis of mixed convection heat transfer in shear driven flows
16.	144103067	VIKASH KUMAR CHOUDHARY	Experimental and Analytical Analysis of Cross & Counter Flow Cooling Tower
17.	144103069	GAIKWAD HARSHAD SANJAY	Some Aspects of Microscale Thermofluidic Transport
18.	144103072	ANIL KUMAR HALVI	Parametric study of a bubbling fluidized bed tar cracking unit
19.	144103073	RANVEER SINGH	Design of a mixing chamber for a four stroke spark ignition engine running with biogas
20.	144103077	PABITRA GHORAI	Numerical simulation of bulb turbine using two equation turbulence model
21.	144103078	AYUSH AGRAWAL	Slotted-blade mechanism on the performance of Darrieus rotor
22.	144103082	ANISH GAUSH	Analysis of Combined mode Heat Transfer in a 1-D and 2-D Participating Media Using Lattice Boltzmann Method
23.	144103085	SANJEEV KUMAR VISHWAKARMA	Studies on Sensible Heat Thermal Energy Storage Systems
24.	144103086	SUJEET KUMAR	Experimental Investigation and Numerical Simulation of Electro-chemical Micromachining

Sl. No	Roll No	Name	Project Title
25.	144103087	IMDAD UDDIN CHOWDHURY	Numerical simulation of gasdroplet flows with evaporation over un-structured grids using EulerianEulerian approach
26.	144103099	JYOTHIS A	Numerical study of convectivediffusive problems inheat transfer and porous media
27.	144103101	DHANJITA MEDHI	Performance Investigation of a Vertical-axis Helical-bladed Hydroturbine through Numerical Simulation
28.	144103102	RATI RAM HANSDA	Numerical Simulation of Transilents in Nuclear Reactors and Natural Circulation Boiling Systems
29.	144103106	SUKANTA DAS	Performance evaluation of bubbling fluidized bed dryer with heterogeneous particles
30.	144103108	MD. NUR ALOM	Aerodynamic Design Optimization of Vent-augmented Elliptical-bladed Savonius Rotor through Numerical Simulation
31.	144103111	WASIM AKRAM	Development of Finite Volume Bases Flow Solver on a 2D Body Fitted Collocated Grid AND Study of Heat Transfer in Wavy Walled Channel
32.	144103112	DEEPAK KUMAR	Analysis of Fourier and Non-Fourier Heat Conduction with Radiation in a Planar Medium using the Lattice Boltzmann Method
33.	154103033	HARSHAD DN-YANDEO KUNJIR	Numerical simulation of multiple droplet impact on a thin liquid
34.	154103036	TUKARAM SHANKAR-RAO SARKATE	Three-dimensional numerical analysis of heat transfrer in a channel with discrete surface – mounted heaters
35.	154103039	SOMESHWAR PAND-HARINATH KALE	Modelling and Experimental Validation of Simulink Model for Spark Ignition Engine
36.	154103044	BHUVNESH KUMAR	PERFORMANCE ANALYSIS OF HIGH TEMPERATURE LATENT HEAT STORAGE SYSTEMS
37.	154103046	ANURAG KUMAR MISHRA	Some Aspects of Microscale Thermo- Fluidic Transport
38.	154103102	ANG TASHI SHERPA	Heat transfer analysis using ultrashort pulse laser heating

List of students who have fulfilled the requirements for award of M.Tech. degree in Mechanical Engineering with Specialization in Computer Assisted Manufacturing

Sl. No	Roll No	Name	Project Title
1.	144103075	DADHANIA RAJKUMAR PRAVINBHAI	Designing Of A Nature Inspired Robotic/Manipulator/Mechanism
2.	144103076	PAWAR SAGAR HANAMANT	Feasibility Studies On Electromagnetic Forming And Perforation Of Tubes And Characterisation Of Magnetic Pulse Welds
3.	144103083	NILKAMAL KALITA	Design and Fabrication of Hybrid Cold Storage for Rural Area
4.	144103097	MYLAVARAPU DEEPAK	Experimental and numerical simulation of Self Piercing Riveting process
5.	144103104	NAVJOT SINGH SANGHU	Impact behavior investigations of GFRP laminate composites
6.	144103116	NIKHIL P VASUDEVAN	Experimental Investigation of Bobbin Tool Friction Stir Welding
7.	154103082	DEEPIYOTI BARUAH	Selection of Welding Processes and Optimisation of Process Parameters For Fabricating Tailor Welded Blanks
8.	154103119	DANIEL KEBEDE TASISA	Thermomechanical analysis of laser welded titanium alloy
9.	154103124	AYAN ISLAM	Finite Element Analysis of Cycloidal Gears

List of students who have fulfilled the requirements for award of M.Tech. degree in Mechanical Engineering with Specialization in Computational Mechanics

Sl. No	Roll No	Name	Project Title
1.	144103095	GINTO DEVASSYKUTTY	Solution to Linear Time Periodic Dynamical System with Application to Biomechanics
2.	144103100	T. N. DEEPU KUMAR	Nano Surface Roughees Modelling and Simulation of Macro to Micro holes using ABRASIVE FLOW FINISHING process
3.	144103135	PRANAB JYOTI CHOUDHURY	Thermo-Mechanical Finite Element Analysis On Generation Of Compound Curved Surfaces By Line Heating Process

List of students who have fulfilled the requirements for award of M.Tech. degree in Mechanical Engineering with Specialization in Aerodynamics and Propulsion

Sl. No	Roll No	Name	Project Title
1.	154103111	MITHLESH PARKER	Study on effect of rotation of vortex shedding in a flow over cylinder
2.	154103116	MERON MEKONEN REDA	Experimental investigations into thin-wall machining of aerospace alloy Al-2024
3.	154103120	KETEMA BOBE BONSA	Experimental Investigations on Chemical Assisted Laser Finishing of Silicon Carbide for Aerospace Applications
4.	154103141	SANJEET KUMAR	A study on aerodynamic characteristics of flow over high speed trains

List of students who have fulfilled the requirements for award of M.Tech. degree in Civil Engineering with Specialization in Structural Engineering

Sl. No	Roll No	Name	Project Title
1.	144104001	MINESH MAHESHWARI	Non-linear analysis of frames using mixed method
2.	144104002	SAROJ KUMAR SAHU	Analysis of shear-critical reinforced concrete beam
3.	144104004	SK SAHABUDDIN	Influence of Simplified SoilStructure interaction on Nonlinear Static Behaviour of Integral Abutment Bridge with Pile Foundation
4.	144104005	SURAJIT KALITA	Study of axial impact on thin walled circular stainless steel tubes
5.	144104007	PASUPULETI NAGA MOHAN	Fatigue Life Analysis of Railway Track incorporating effect of load sequence
6.	144104008	VIPIN KUMAR TIWARI	Vibration based damage detection in simply supported and continuous beams
7.	144104009	LAXMIPRIYA MAHAPATRA	Investigation of Damage States for Fragility Analysis of RC Frame with Structural Wall
8.	144104010	HRISHIKESH DEV SARMA	Low velocity impact analysis of honeycomb sandwich structure subjected to conical impactor
9.	144104011	RAKESH KUMAR	Design of Horizontal Axis wind turbine Blade: A case study
10.	144104012	JONNALAGADDA CHINTIAH SUNIL	Seismic risk assessment of an integral abutment bridge
11.	144104013	BISWAJIT PAL	Bridge vehicle model for high speed railways
12.	144104014	ASWANTH P	Incremental Dynamic Analysis For Fragility Assessment Of RC Structures
13.	144104015	ANKUSH SATISHRAO ZALKE	Analysis Of Rc Column Under Slow Cycle Fatigue Loading Considering Influence Of Axial Load
14.	144104016	ANKAM LAKSHMINARAYANA	Seismic Vulnerability Reduction Of Rc Buildings With Soft First Storey Using Buckling Restarined Braces

Sl. No	Roll No	Name	Project Title
15.	144104017	ANJANI KK	Probabilistic Deformation Capacity Model for RC Slab subject to Blast loading
16.	144104020	BHRAMHANAPALLI BHARATH	Comparison & Analysis of Punching Shear Test of IRIS 2010-2012 NEA Benchmark Problem
17.	144104022	SOYAM PRASANTH KUMAR	Performance evaluation of RCA in SCC beam-column connections under cyclic loadings
18.	144104026	SAPTARSHI SARKAR	Semi-Active Vibration Control Of Hawt Tower Using Mr-Tlcd
19.	144104099	SUMAN KUMAR	Development Of Bhism For Performance Based Blast Resistant Design Of Reinforced Concrete (Rc) Structures
20.	144104100	RICKY LALTHAZUALA	Experimental & Numerical investigations on hollow circular stainless steel stub & slender columns with circular perforations under axial compression
21.	144104101	SANASAM VIPEJ DEVI	Investigation of Hollow Square Stainless Steel Stub Column with Circular perforation under axial compression
22.	144104102	PRATIK PATRA	Influence Of Rooftop Telecommunication Towers On Rc Buildings Under Seismic Loads
23.	144104104	ROZAMPUJA	"Effect of cement type and corrosion inhibitors on rebar corrosion in concrete exposed to chloride environment"
24.	154104001	MANU KRISHNAN	Real Time Damage Detection In Structural Systems Using Full And Partial Sensor Information

List of students who have fulfilled the requirements for award of M.Tech. degree in Civil Engineering with Specialization in Water Resources Engineering and Management

Sl. No	Roll No	Name	Project Title
1.	144104056	SOMNATH MONDAL	Comparative study of different soft computing techniques in sediment dynamics
2.	144104058	MRUNALINI NANDKISHOR PATIL	Mapping of direct flooding from Brahmaputra river using remote sensing techniques
3.	144104059	SHANTANABA MAJUMDER	Effect of seepage on Dynamic characteristics of Beafsms in alluvial channel
4.	144104060	NIKHIL AGRAWAL	Hybrid River training structures for braided river using 3D River Model
5.	144104061	ANGSHUMAN M SAHARIA	Future Climate change impact evaluation on hydrologic processes in the Bharalu and Basistha Basin using SWAT model and Transport of engineered silver nanoparticle in saturated sand
6.	144104062	SOURAV MUKHERJEE	Stochastic Simulation of Transient Transport of Solids in Streams
7.	144104064	SINCHAN ROY CHOWDHURY	NUMERICAL MODELING OF HEAP LEACHING OF CALICHE MINERALS
8.	144104065	APARIMITA PRIYADARSHINI NAIK	Estimating soil hydraulic properties from experimental and numerical inversion using disc infiltrometers
9.	144104066	SHAYAN SHAFIQ	Ground Water And Arsenic Transport Modeling In A Part Of The Brahmaputra Floodplains
10.	144104067	CHANDAN PRADHAN	Impact Assessment of River Interventions Alluvial Channel Morphology
11.	144104068	RISHI D S	Laboratory scale study and Numerical Modeling of Contaminant Transport in Coastal Aquifers
12.	144104069	AMRUTHA SURESH	Urban flooding modeling considering climate change
13.	144104070	BARSHA RANI PAGADA	Turbulent characteristics around bridge pier

Sl. No	Roll No	Name	Project Title
14.	144104071	BRISTI KUMAR MUDAI	Lab-Scale Study On The Effect Of Sub-Surface Barrier, Pumping & Recharge On Saline Intrusion
15.	144104072	DENGKHW BRAHMA	Flow over fixed bedform
16.	154104057	VENKATESH KISHOR PAN-CHARIYA	Application of a GIS –Energy approach in regional sustainable development by evaluating renewable natural resources flow and net primary productivity
17.	154104063	KANNEGANTI BHARGAV KUMAR	Multivariate analysis of hydrologic variables using Copula and blind source separation techniques
18.	154104069	KARIVELLA PAVAN KUMAR	Determination of Infiltration characteristics using flux based and head based approaches
19.	154104109	SHAMBEL YIDEG AREGA	Hydrologic Modeling of Omo Gibe River Basin of Ethiopia Using Arc SWAT Model

List of students who have fulfilled the requirements for award of M.Tech. degree in Civil Engineering with Specialization in Geotechnical Engineering

Sl. No	Roll No	Name	Project Title
1.	144104025	SARVADEVABHATLA SATHWIK KASHYAP	Study on Multichannel Analysis of Surface waves method for Near Surface Characterization
2.	144104029	KAVYAJEET BORA	Study On Conventional Piled Raft And Disconnected Piled Raft Systems In Sandy Soils
3.	144104030	SURAJ BISWAL	Impact of climate change on the long –term performance of multilayered cover system
4.	144104031	GEETANJALI DAS	Study on the Volumetric Shrinkage behavior of highly plastic clays
5.	144104034	SAI KIRAN CHUKKA	Finite Element Modelling Of Embankments Resting On Pvd Impeoved Soft Soils
6.	144104035	APRATIM DAS	DETERMINATION OF GROUND REACTION CURVE FOR JOINTED ROCK MASS
7.	144104036	RAKESH KUMAR SAHU	Prediction of compressibility characteristics of clays of different plasticity
8.	144104037	PRASUN HALDER	Numerical Study On Pile- Supported And Basal Reinforced Embankments
9.	144104038	ABHISEKH SAHA	Determination of air entry value for low to medium plastic soils
10.	144104039	JOY KUMAR MONDAL	Forward & inverse equivalent linear ground response analysis: Understanding & application
11.	144104046	CHITTA SAI SANDEEP	Study on Bearing capacity evaluation of Rocks
12.	144104047	DEVDEEP BASU	1D Nonlinear Effective Stress Ground Response Analysis and Liquefaction Potential Evaluation of IIT Guwahati
13.	144104098	RUBI CHAKRABORTY	Numerical Investigation Of Hill Slope Instability Induced By Hydraulic Abn Seismic Scenarios
14.	144104105	SOHAM BANERJEE	Medium Characterization of selective Indian regions adjacent to the western Himalayas, based on Seismic wave attenuation
15.	144104108	BHARAT SOLANKI	Study on the unsaturated flow behavior in compacted clay-sand layered system
16.	154104025	AMALESH JANA	Stability Analysis of Jointed Rock Slope using Finite Element Explicit Joint Model
17.	154104027	ATMA PRAKASH	Probabilistic analysis of water retention characteristic curve of fly ash

Sl. No	Roll No	Name	Project Title
18.	154104040	KRISHAN DEV	Seepage assessment of multilayered cover system under various climatic scenarios
19.	154104072	GAURAV KUMAR DAS	Probabilistic analysis of stability of vegetated slope considering correlation of hydrological and mechanical parameters

List of students who have fulfilled the requirements for award of M.Tech. degree in Civil Engineering with Specialization in Environmental Engineering

Sl. No	Roll No	Name	Project Title
1.	144104080	UTPAL GHOSH	Bioavailability, chemical speciation of heavy metals and maturity assessment during composting of paper mill sludge
2.	144104081	VIMAL RAJ	Environmental Evaluation Of Brahmaputra River Sediments Near Guwahati And Amendments Of Properties For Selective Applications
3.	144104082	ANIL SWAIN	Evaluation Of Water Treatment Facilities For Ensuring Dependable And Sustainable Performance
4.	144104083	JOSHI VINOD VENKATRAO	Determination Of Heavy Metals In Roadside Dust Using Higher Plant Leaves As Biomonitor
5.	144104084	SAGAR RAVASO PATIL	Enhancing organics and Nitrogen. Removal Performance of Horizontal Subsurface flow Constructed Wetland by Step feeding and intermittent Aeration Strategy
6.	144104085	SAGARIKA PANIGRAHI	Biosorption of Cr(VI) through dry bacterial biomass <i>Bacillus badius</i> AK
7.	144104087	VISHAL VERMA	Numerical Simulation Of Effects Of Natural Ventilation On Indoor Air Pollution Of Buildings Next To A Street Canyon
8.	144104088	ABHISEK MONDAL	Performance and Morphological Changes in Aerobic Sludge Stressed by Metal, Pesticide and Antibiotic in Feed
9.	144104090	ANNADANAM SAI KUMAR	Development of Emmission Inventory for Greenhouse Gases and Criteria Pollutants from Railway Locomotives in North East India
10.	144104093	KRUTI JARURIYA	Role Of Arsenate Reducing Bacteria In Transforming Arsenic Species In Flood Plain Aquifers
11.	144104094	GOLLAPALLI MURALIDHAR	Assessment Of Greenhouse Gases Emissions From A Municipal Solid Waste Landfill In Guwahati, India
12.	144104095	NARUTTAM DAS	Pb(II) Removal By Adsorbent Prepared From Pineapple Crown Leaves
13.	144104115	RAMKISHOR JAIKRAM KASHYAP	Studies on Low pH Sulfate Bearing Wastewater Treatment
14.	144104116	SAJAL RUDRA PAUL	Treatment of synthetic petroleum refinery effluent by a combination of Fenton's oxidation process and aerobic moving bed reactors
15.	144104119	VIVIAN KHARSHIING	Life cycle assessment of municipal solid waste management system for Shillong city

List of students who have fulfilled the requirements for award of M.Tech. degree in Civil Engineering with Specialization in Transportation Systems Engineering

Sl. No	Roll No	Name	Project Title
1.	144104033	OM PRAKASH	A laboratory Investigation on Type II Microsurfacing and with Fiber
2.	144104041	BIBHUTI BHUSHAN BHARDWAJ	Effect Of Air Void Content And Binder Stiffness On Properties Of Wma Mixes

Sl. No	Roll No	Name	Project Title
3.	144104043	RIDIP DUTTA	Evaluation Of Frictional Characteristics Of Bituminous Mixes
4.	144104044	SUBHADIP TO PODDAR	Study of Lateral Placement of Vehicle in Heterogeneous Traffic Stream
5.	144104045	SOLASE DINESH AJIT	A Laboratory Investigation on Type III Micro-surfacing with different fillers
6.	144104048	ANIVESH YADAV	Characterization of Cold Bituminous Emulsion Mixes
7.	144104051	MURKUTE KISHORI DAGADU	Use Of Waste Pet In Asphalt Concrete Mixes
8.	144104053	NILANJAN ADHIKARY	Study of lateral and longitudinal interaction of vehicles under mixed traffic condition
9.	144104054	VISHAL KUMAR	Simulation of pedestrian movement using Viswalk
10.	144104055	K VANLALREMRUATA	To develop a method for repairing low and moderate severity pothole using major aggregate with the help of Microsurfacing
11.	154104049	NISHANT BHARGAVA	Evaluation of moisture and influence on behavior of Warm Mix Asphalt

List of students who have fulfilled the requirements for award of M.Tech. degree in Civil Engineering with Specialization in Infrastructure Engineering and Management

Sl. No	Roll No	Name	Project Title
1.	144104075	BHABESH MAHANTA	Participatory Irrigation Management for Improving Sustainability of Irrigation System
2.	144104078	VINAY KUMAR TANDON	"Effect of mix parameters and admixed chlorine on properties of high-volume fly ash concrete
3.	144104111	AMAN KUMAR JAIN	Application Of Particle Packing Theory For Concrete Mix Proportioning And A Comparison With Conventional Method
4.	154104074	ANKIT AGWEKAR	A Framework for Implementation of Building Information Modeling for PP Projects in India
5.	154104075	SAURAV GARG	Studies on density, strength, sorptivity and analysis of microstructure of foam concrete produced with synthetic surfactant
6.	154104077	AMIT KUMAR	Studies on and an additive behavior of foam suitability and its use in foam for concrete production
7.	154104100	FREZGI ASSEFA MEKONNEN	Performance evaluation of corrosion inhibitors against reinforcing steel corrosion in concrete subjected to internal and external chloride exposure conditions
8.	154104101	HAILE KIDANE GEBRETINSAE	A study on workability , compressive strength and corrosion of steel reinforcement in chloride contaminated highvolume fly ash concrete

List of students who have fulfilled the requirements for the award of the M.Tech. degree in Biotechnology

SL. No	Roll No	Name	Project Title
1.	154106001	AMIT SHARMA	Understanding the transcriptional regulation of THY1
2.	154106004	PRACHI BHALLA	Synthesis of new oxabicyclic derivatives and its evaluation as antileishmanial
3.	154106005	HETA JIGAR PANCHAL	In-Situ Pressure Monitoring using Cardiac Implantable Electronic Devices
4.	154106006	DEBADRITA BASU	Molecular Dynamics Simulations of Protein-RNA interactions
5.	154106007	ANKIT NARULA	Analysis of stem cell and related patents, patenting laws and clinical trial regulations in India and other Asian countries
6.	154106008	SHUBHANK SHEREKAR	Random Mutagenesis of Streptococcus Sp. For Hyaluronic Acid Production from Renewable Feedstocks

SL. No	Roll No	Name	Project Title
7.	154106012	SARBAJEET DUTTA	Regulation of ADAMTS19 by estrogen in MCF-7 breast cancer cells
8.	154106022	ASWITHA V	(E)-labda-8(17), 12-diene-15, 16dial from seeds of <i>Alpinia nigra</i> : its hemolytic activity and efficacy against representative human pathogens
9.	154106025	KOKKONDA VENKATANARA -YANACHARY	" UNDERSTANDING CARBON FLUX DISTRIBUTION IN <i>Clostridium acetobutylicum</i> THROUGH DYNAMIC FLUX BALANCE ANALYSIS"
10.	154106027	J DHARANIDARAN	Bioprocessing of Recombinant L-asparaginase from Bacillus Cell Factories
11.	154106031	MAYUR MAHINDRA KEDARE	Exploiting metagenome for industrially important enzymes
12.	154106033	SERENA NGIIMEI D	Cellular role of a zinc transporter in <i>Neurospora crassa</i>
13.	144106008	ANIRBAN JANA	Exploring the role of cation-TT interactions in peptide selfassembly
14.	144106014	ARNAB ROY	Prospecting CRISPR/Cas9 Adaptive Immune System for Genome Editing Application
15.	144106016	ANJALI SINGH	Investigation on variable effects of electrostatic interaction profiles in peptide based anti-bacterials
16.	144106021	AMIT KUMAR	Elucidating the therapeutic potential of a novel labdare type diterpene for head and neck cancer
17.	144106024	NAVODIT KUMAR SINGH	Photoautotrophic cultivation of microalgae in bubble column reactor under natural sunlight
18.	144106034	INES LOBO BRANDAO TEIXEIRA ANTUNES	Cloning, expression and characterization of a xylanase of family 10 glycoside hydrolase (GH10) from <i>Pedobacter saltans</i> DSM12145
19.	154106009	TABASSUM SAHAREEN	Probing Macromolecular Interaction with a Fluorogenic Pyridine Amphiphile
20.	154106010	VISHNU KUMAR	Molecular characterization of Erns protein of classical swine fever virus
21.	154106014	GARIMA CHHABRA	Investigating The Effect Of Osmolytes On Human Lysozyme Aggregation
22.	154106016	RONIKA DE	To predict the interactive studies of two protein complexes ASAP & EJC
23.	154106017	TUSHARIKA GUPTA	Designing a novel fungal vector using NCL11 promoter from <i>Metarhizium anisopliae</i> with inducible gene expression
24.	154106020	TARINI DEVI SAHU	Molecular and computational characterization of PH1078 from <i>Pyrococcus horikoshii</i>
25.	154106023	LALITHA GAVYA S	Functional Characterizations of a Hybrid Glutathione- S-Transferase and Lactate Dehydrogenase Enzyme
26.	154106029	SHIVANSHI KUMAR	Production and Purification of Urokinase using HT-1080 cells on Silk Based Scaffolds: A lab scale study
27.	154106030	ANIL KUMAR	Sensing Bilirubin from its interaction with Pristine Single Walled Carbon Nanotubes
28.	154106032	VIJAY DAHARIYA	Nucleotide substitution analysis of mitochondrial protein coding genes in selected dipteran species

List of students who have fulfilled the requirements for award of M.Tech. degree in Chemical Engineering with Specialization in Petroleum Science and Technology

Sl. No	Roll No	Name	Project Title
1.	144107001	AMIT KUMAR PANDEY	Molecular Dynamics Simulation Study of Biodegradable Polymers/ Cellulose Nanocrystals based Nanocomposites

Sl. No	Roll No	Name	Project Title
2.	144107003	HEMANTA KALITA	Synthesis and Characterization of Chitosan Mixed Matrix Membrane for the Separation of CO ₂ from gaseous mixtures
3.	144107004	TRILOKPATI TRIBEDI	Insights of Circulating Fluidized Bed: Laboratory and Pilot Plant Scale
4.	144107005	UPASANA MAHANTA	Molecular Dynamic Studies on the Extraction of 1-Butanol from Aqueous Phase using Imidazolium based Ionic Liquids
5.	144107007	VIBHU SHARMA	Removal of Fluoroquinolone Antibiotic from Aqueous Solution Using a Hybrid Process of Adsorption-Membrane Filtration
6.	144107010	VARUN P	Yin-Yang-Pair Optimization: Novel lightweight optimization algorithms for single and multi-objective problems
7.	144107011	SNIGDHA SAHA	"Electrochemical Sensing of Hydrogen Peroxide on Biosynthesized AgNPs-Graphene Electrode"
8.	144107012	SUSHOBHAN PRADHAN	Microbial Production of Polyhydroxybutyrate with Ultrasound assisted extraction
9.	144107013	SURABHI PATEL	Evaluation Of Gas Hydrate Kinetics By A Modified Isochoric And Isothermic Model
10.	144107014	OM KUMAR AGNIHOTRI	Cfd Modelling Of Oil – Water Flow In Stratified Flow Regime In Pipelines
11.	144107016	MUHAMMAD ASLAM	Fluid Flow And Pattern Formation In Evaporating Suspension Droplets
12.	144107017	PRIYANKA SHARMA	Synthesis of Ordered Mesoporous Silica by Acidic Route for CO ₂ Capture
13.	144107018	MD IMARAN	Stokesian Dynamics Simulation Of Shear Thinning And Shear Thickening Suspensions In Bounded Shear Flow
14.	144107019	OM PRAKASH	Optimization based technoeconomic analysis of micro-grid integrated low gas producing wells for localized power generation
15.	144107020	DUNNA SHYAM	Preparation of Bio-diesel from Waste Cooking Oil (WCO) using Alkaline Catalyst on Carbon Support Impregnated Ceramic Membrane
16.	144107022	PRIYANKA SHRIVASTAVA	Experimental Investigation of Underground Coal Gasification
17.	144107023	YOGENDRA KUMAR	Synthesis and Characterization of Ni/r – Al ₂ O ₃ catalyst by strong electrostatic adsorption (SEA) method
18.	144107024	JITU DAS	Sonochemical Synthesis And Characterization Of Zirconium Ferrite (ZrFe ₂ O ₃)
19.	144107025	NIRMAL MALLICK	Studies on coal bed methane (CBM) integrated with underground coal gasification (UCG)
20.	144107026	YASHWANT	Hydrogen storage on doped grapheme and templated carbon
21.	144107027	VARDHE PANKAJ NIDHAN	Study of self assembly behavior of branched polymer chains using Monte Carlo Simulation
22.	144107028	ANAND VIBHORE	Modified electroless deposition technique for preparation of supported palladium catalysts using hydrazine
23.	144107029	DHIREN BARO	Stability, Volume Fraction and Fine Particles Recovery Potentials of Ionic Microbubble
24.	144107030	KANISKA MURMU	Dynamics of water droplet on structured surface
25.	144107033	D. MADHURIMA REDDY	Modeling and Simulations of Biodiesel Synthesis Processes in Tubular Reactors
26.	154107001	ANKITA JAIN	Removal of Organic Pollutants from Water by Ozone Micro-bubbles
27.	154107012	ALLU NANI	Scale-up study on microalgae biofuel feedstock production and Techno-economic analysis of commercial-scale microalgae biofuel plant

Sl. No	Roll No	Name	Project Title
28.	154107046	HARSH VARDHAN	Preparation and characterization of metal doped heterogeneous catalyst from bio-waste for production of biodiesel
29.	154107066	FEKADU MOSISA WAKO	Thermal and Catalytic cracking of waste cooking oil for biofuel production

List of students who have fulfilled the requirements for award of M.Tech. degree in Chemical Engineering with Specialization in Materials Science and Technology

Sl. No	Roll No	Name	Project Title
1.	144107034	SHASHANK SHEKHAR SRINET	Separation of anionic surfactant from aqueous solution using foam fractionation
2.	144107035	PAYEL SEN	Processing and Characterization of Multifunctional Polystyrene (PS) Nanocomposites Containing MWCNT and Ni-Al LDH: Role of Dual Nanofillers
3.	144107037	ANUSHREE GHOSH	Prediction of Kinetic Model for Heterogenous Transesterification of Mustard oil and preparation of ceramic membrane for microfiltration of Carrot Juice
4.	144107038	PIYALI GHOSH	"Biomediated Synthesis and Applications of Mono-Metal and Bi-Metal Doped Nanoparticles"
5.	144107043	PILLI RAJASEKHAR REDDY	Measurement Of Gas Adsorption Properties Of An Al-Based Metal Organic Framework (MIL-91)
6.	144107046	RAHUL SHRIRAM MISAL	Double Diffusive convection in a solar thermal collection and storage unit: A numerical Study
7.	144107047	SYAM U A	Design of supported bi-metallic catalysts using modified electroless deposition methods
8.	144107051	SOORYA PRADEEP	Mixing Characteristic of Solids in Liquid-Solids Cylindrical and Rectangular Fluidized Bed through Time Series Analysis of Lagrangian Data
9.	144107052	VENKATESH T	Grey Water Treatment and Surfactant Recovery Using UF/ RO Process
10.	144107055	SUTAPA DAS	Development of efficient Bioleaching process for the Metal removal from Spent catalysts
11.	144107056	RAVULA RAJASEKHAR	Low energy transportation through microfluidic device
12.	144107058	RIJUMONI BORO	Treatment of Tea Factory Wastewater: Experimental and Response Surface Optimization
13.	144107059	DUMBI BOIPAI	Biodiesel Synthesis: Mathematical modeling and simulation
14.	144107062	GAURAB SARKAR	Thermodynamic Insights of Functionality on the Structural, Dynamical and Optical Properties of Thiol-ene-acrylate 'Click' Monomers: A Molecular Dynamics Study
15.	144107070	CHIPPADA SWAMY SUMANTH RAJU	Lithium ion dynamics in an ionic liquid of high electrochemical window value
16.	154107039	ANIRUDDHA DEB	Experimenting Studies on Micro Patterning of thin polymer films
17.	154107061	MEDHANIE GEBREMEDHIN GEBRU	Microalgae based wastewater treatment coupled with biodiesel production
18.	154107079	SYAM K V	Formulation and characterization of Curcumin Oral disintegrating film

List of students who have fulfilled the requirements for award of M.Des. degree in Design

Sl. No	Roll No	Name	Project Title
1.	154205001	PAKSHIT GAJANANRAO DESHMUKH	Tashi : Video Game As A Tool For Early Detection Of Dementia
2.	154205002	ABHIJEET PATHAK	The Verge : Visualisation Of UI Patterns Of Future Inspired From Dashavatar

Sl. No	Roll No	Name	Project Title
3.	154205003	KRIKA AGGARWAL	F030 Coexists Concepts- Automobile Interior Design Solution Dedicated For Urban Car- Sharing
4.	154205004	AJINKYA VIJAYKUMAR NAIK	Exterior Design Of An Electric Crossover For Volvo
5.	154205005	DARPAN BAJAJ	Maharajin : A Biographical Exploration Of Gulab Tiwari
6.	154205006	KSHIPRA SHARMA	Pragati- A Mobile Based Virtual Reality (Vr) Platform To Train And Educate Rural Community Health Workers
7.	154205007	SARATH P	Internet Of Things : Rituals In Indian Kitchen : Design Implications For Building Intelligence In Household Objects
8.	154205008	SHYAM KRISHNAN THOTTINGAL	Aid For Facilitating Creative Problems Solving In Product Design
9.	154205009	NIHARIKA DAS	Sociocurry : Exploration In Travel And Decentralization
10.	154205010	LOIZING SANA SINGHA	A Learning Product To Enhance Attention Span For Educational Activities In Children With Mild Autism
11.	154205011	UZAIR IQBAL MIR	Design Intervention For Improving School Education In Kashmir
12.	154205012	MOHAMMED FARIS P K	Incredible: Explorations On Forms And Eating Experiences
13.	154205013	JONI MAZUMDER	Online Visual Research Tool For Creating Design Brief & Ideation
14.	154205014	MUKESH T.K.	Hydroponic Systems Design
15.	154205015	NADIRNOORY K V	Aloet : Bamboo Joinery System Design
16.	154205016	MOHAMED TARIQ HASSAN	Equipment Concept Design : Paramedicals
17.	154205017	SOLOMON	Ergonomic Evaluations And Design Interventions Of Industrial Shop-floors Dealing With Surface Treatment Processes
18.	154205018	MRINMOY NATH	Neo Speech : Video Game For The Speech Therapy Of Cleft Lip And Palate
19.	154205019	PHANEENDRA BANDARU	Awakening Of Senses
20.	154205020	RIJAS MP	Shape Shift
21.	154205021	ARJUN PRAKASH	Exterior & Interior Design Of An Ultra Luxury Electric Car For Porsche
22.	154205022	ABIJIT TA	Aesthetics Of Smell ; An Exploration On Olfaction
23.	154205023	MANAS DAS	Awareness Among The Rural Women About The Nutritional Requirements During Pregnancy
24.	154205024	SHISTHA SINGH	Design Intervention For Beverages Of North East India
25.	154205025	SHILPI MUNDA	Educational Game Design For Language(Hindi And Mundari)
26.	154205026	ATUL CHANDAN	Cutlery Design For Creating Michelin Experience By Plating Of Indian Food
27.	154205027	BENSON KAGO MATHIANE	Cultural Branding Applied To Design

List of students who have fulfilled the requirements for award of Master of Science by Research degree in Centre for Energy

Sl. No	Roll No	Name
1.	154351005	SHASHANK SATISH KULKARNI
2.	154351007	RUPAM BHADURI
3.	154351008	NISHCHAL
4.	154351009	RAHUL JAIN
5.	154351012	RISHIRAJ PURKAYASTHA

List of students who have fulfilled the requirements for award of Ph.D. degree in Computer Science and Engineering

Sl. No	Roll No	Name	Thesis Title
1.	09610102	NILADRI SETT	Exploiting Tie-strength and Structure Towards Link Prediction in Social Networks
2.	09610111	ASHOK KUMAR A.R.	4-4, 1-4: A novel architecture for data center networks and its performance study
3.	10610105	SHASHI SHEKHAR JHA	On Mobile Agents for Learning & Coordination in a Networked Robotics Milieu
4.	10610109	MAYANK AGARWAL	Intrusion Detection System for Attacks in Wi-Fi Networks: A Discrete Event System Approach

List of students who have fulfilled the requirements for award of Ph.D. degree in Electronics and Electrical Engineering

Sl. No	Roll No	Name	Thesis Title
1.	09610201	SAI KRISHNA SANTOSH G.	Surface Acoustic Wave Devices on Silicon Substrate using Patterned and Thin Film ZnO
2.	09610207	MALAYA KUMAR NATH	Multiscale Analysis of Diagnostic Features from Color Fundus Images
3.	09610210	RAJIB JANA	Analysis And Design Of Matched Feeds For Offset Parabolic Reflector Antennas Using Analytical And Numerical Techniques
4.	09610212	GAURAV JYOTI PHUKAN	Performance Improvement Of Blind Classification Of Digital Modulations
5.	09610218	SURYA PRAKASH MATCHA	High Performance Architectures For Adaptive Equalizers Using Distributed Arithmetic
6.	10610204	K. T. DEEPAK	Foreground Speech Segmentation and Enhancement
7.	10610206	MADHULIKA DAS	Design of Optimal Sliding Mode Controller for Uncertain Systems
8.	10610209	SYED SHAHNAWAZUDDIN	Improving Children's Mismatched Asr Through Adaptive Pitch Compensation
9.	10610213	VINAYA M.M.	Performance Improvement of Low Power LNA using Novel PVT Compensation Circuit and CurrentReuse Technique
10.	10610223	MALATHI T.	Estimation Of Disparity Map From Stereo Image Pairs In Presence Of Occlusion
11.	11610209	BISWAJIT DEV SARMA	Vowel-Like Region Based Acoustic-Phonetic Analysis For Phone Recognition
12.	11610210	NEERAJ KUMAR	A few algorithms for inverse problems in image processing
13.	11610215	ABHISHEK RAMNATH VAHADANE	A Few Algorithms for Histopathological Images in Computational Pathology
14.	11610216	SIKANDAR KUMAR	Performance Analysis Of Multiantenna And Cooperative Cognitive Radio Under Spatial Correlation
15.	11610219	SAROJ MONDAL	Micro-Scale Power Management Interface Circuits For Iot Node
16.	11610230	ANURAG SINGH	Compressed Sensing Framework For Multi-Channel Ecg Signals
17.	11610235	NAGARAJ ADIGA	Glottal Activity Region based Processing for Speech Synthesis
18.	11610236	SIBASANKAR PADHY	Multilead Ecg Data Analysis Using Svd And Higher-Order Svd
19.	11610238	SOMEN BHATTACHARJEE	Analysis Of Printed Monopole Antennas
20.	136102010	RAJESH KUMAR TRIPATHY	New Diagnostic Features from Multilead ECG Signal for Detection of Cardiac Ailments

List of students who have fulfilled the requirements for award of Ph.D. degree in Mechanical Engineering

Sl. No	Roll No	Name	Thesis Title
1.	07610305	SUSHEN KIRTANIA	Finite Element Analysis of Carbon Nanotube(CNT)-Reinforced Composites having a Broken CNT
2.	09610312	SIMON PETER	Dynamics of the wake behind an oscillating and rotating sphere in uniform flow
3.	10610331	GAJANAN NAMDE-ORAO SHELKE	PARAMETRIC STUDIES OF DOWNDRAFT GASIFIER ALONG WITH TAR CRACKING
4.	11610307	DEBALEENA CHAKRABORTY	Strain Gage Based Determination of Stress Intensity Factors in Cracked Orthotropic Materials
5.	11610311	MAYURI BARUAH	Experimental investigation and numerical modeling of plasma and laser microwelding processes
6.	11610316	DEEPAK KUMAR YADUWANSHI	Plasma assisted hybrid friction stir welding of similar and dissimilar materials
7.	11610334	PRAKASH KUMAR SAHU	Enhancement Of Weld Qualities In Friction Stir Welding
8.	11610339	VINOD YADAV	Inverse Estimation Of Material Parameters, Convective Heat Transfer Coefficients And Friction In Warm Flat Rolling
9.	126103004	SEIKH MUSTAFA KAMAL	A Theoretical And Experimental Study Of Thermal Autofrettage Process
10.	126103013	SHRUTIDHARA SARMA	Thin Film Heat Transfer Gauges For Short Duration Transient Measurements
11.	126103014	JOHNNY MERTENS	Performance Of Injection-Moulded Carbon Nano-Tube Polypropylene Asymmetric Gears
12.	126103034	VIJAY KUMAR MISHRA	Estimation Of Parameters In Conduction-Radiation Heat Transfer In Porous Media
13.	126103038	AZD ZAYOUD	Circulating Fluidized Bed Combustor Towards Third Generation Of Oxy-Fuel Combustion

List of students who have fulfilled the requirements for award of Ph.D. degree in Civil Engineering

Sl. No	Roll No	Name	Thesis Title
1.	09610412	PATIL RAVINDRA JAYSING	Batch and Column Studies for Metal Removal/Uptake under Uncontrolled/ Controlled pH Conditions by Granular Activated Alumina from Mono, Binary- and Ternary-Metal Ion Systems of Cu(II), Pb(II) and Cr(III) at Fixed Total Initial Concentrations
2.	10610425	AMIT KUMAR DUBEY	Dynamics of Braided River Morphology Using Advanced Geospatial Technology and Modeling Techniques
3.	10610426	SWAPNALI BARMAN	Change in Snow Cover Area and Flow Scenario of the Brahmaputra and Subansiri Basins Due to Climate Change
4.	11610407	SONU J.K	Shear Behaviour of Lean Duplex Stainless Steel (LDSS) Rectangular Hollow Beams – a Finite Element Study
5.	11610410	SYED HUMAYUN BASHA	Shear Behavior Of Columns In Masonry Infilled RC Frames Under Lateral Loads
6.	11610420	SRIKANTH VADLAMUDI	Engineering Behaviour Of SandBentonite Mixtures And The Influence Of Particle Size Of Sand
7.	11610429	K. DHAMODHARAN	Effects Of Various Inoculum And F/M Ratio During Batch And Continuous Anaerobic Digestion Of Food Waste
8.	11610430	ARTI CHOUDHARY	Impacts Of Urban Traffic Interruption And Congestion On Vehicular Exhaust Emissions
9.	126104013	THOKCHOM BEBINA DEVI	Hydrodynamics Of Vegetative Channel With Downward Seepage
10.	126104028	PALASH DEY	Response Surface Function For Detecting Crack Parameters In Thin Walled Beams

Sl. No	Roll No	Name	Thesis Title
11.	126104033	NONGTHOMBAM PRE-MANANDA SINGH	A Prediction Method for Estimating Exposure of Sedentary Workers to Carbon Monoxide along an Urban Traffic Corridor
12.	136104031	NGO VAN THUYET	Seismic Performance Evaluation Of Prototype Un-Bonded Fibre Reinforced Elastomeric Isolators

List of students who have fulfilled the requirements for award of Ph.D. degree in Design

SL. No	Roll No	Name	Thesis Title
1.	11610506	SHRIKANT SALVE	Data Entry Errors in Rural Context: Evaluation and Design of Efficient Error Limiting Intelligent Interface for Rural and Semi-urban Indian Data Entry Operators

List of students who have fulfilled the requirements for award of Ph.D. degree in Biosciences and Bioengineering

Sl. No	Roll No	Name	Thesis Title
1.	10610609	RAJAT PANDEY	Microbial cell factories for the production of recombinant human Interferon gamma
2.	10610610	ANKANA KAKOTI	Development And Characterization Of Dna Aptamer And Microfluidic Paper Based Platform For Detection Of Heart Type Fatty Acid Binding Protein
3.	10610613	ARGHYA SETT	Aptamers For Breast Cancer Protein Markers
4.	10610616	ANKITA PUNETHA	Investigations On The Maturation Of Crispr Rna In Type I-C Crispr-Cas System
5.	10610619	DEBAMITRA CHAKRAVORTY	Attaining Protein Thermostability – A Rationalised Approach
6.	10610620	RADHIKA R.	Media Optimization, Batch Kinetics And Production Of Bioactive Alkylamides In In Vitro Cell Lines Of <i>Spilanthes paniculata</i> Wall. Ex. Dc
7.	10610623	SAUMYA PRASAD	The Role of Charged Amino Acids in the Origin of UV-Visible Electronic Absorption in Proteins
8.	11610602	VIBHA SINHA	Chromium Removal by <i>Tradescantia pallida</i> (Rose) D.R. Hunt: Batch and Continuous Studies
9.	11610603	ATUL KUMAR	Study on Microenvironment Mediated Chemoresistance in Chronic Myeloid Leukemia
10.	11610605	BASAVARAJ PALABHANVI	Development of a cost effective process for biodiesel production through model guided high cell density cultivation of <i>Chlorella</i> sp. FC2 IITG
11.	11610607	ARCHITA GHOSHAL	Recombinant sFRPs in Wnt/ β -Catenin Signaling Targeted Cancer Therapy
12.	11610611	SUMAN JYOTI DEKA	Identification, screening and exploring potentials of PKC directed molecules in anti-cancer drug development
13.	11610614	VIJYA LAXMI	Understanding Calcium Signaling Pathway Mediated By Calmodulin And Related Proteins In <i>Neurospora crassa</i>
14.	11610615	NIVEDITA SINGH	Xanthine Based Inhibitors For Therapeutics Targeting Phosphodiesterase 9A
15.	11610616	SANTHOSH M	Human serum albumin-stabilized gold nanoclusters and their applications for detection of bilirubin in serum samples
16.	11610618	N SHARMILA	Functional Characterizations of Plant Uracil Phosphoribosyltransferase and Phytaspase for their Potential in Cancer Therapy
17.	11610619	MADHAVI SINGH	Photoinactivation of <i>Escherichia coli</i> and <i>Enterococcus hirae</i> in aqueous solution

Sl. No	Roll No	Name	Thesis Title
18.	126106002	RUCHIKA BHARDWAJ	Studies on identification and <i>in vivo</i> function of novel drug target enzymes of <i>Leishmania donovani</i> using biomolecular approaches
19.	126106029	BALAJI S N	Investigation of Methemoglobin Contribution in Host Pathology and Drug Toxicity During Malaria
20.	126106031	GADEWAR MANOJ MAN- IKRAO	Antidiabetic Evaluation of Medicinal Plants <i>Dillenia indica</i> , <i>Solanum indicum</i> and <i>Solanum torvum</i> from North East Region of India
21.	126106036	MR. RITESH KUMAR	Exploring the role of methionine aminopeptidase 2 and other noncaspase proteases in programmed cell death of <i>Leishmania donovani</i>

List of students who have fulfilled the requirements for award of Ph.D. degree in Chemical Engineering

Sl. No	Roll No	Name	Thesis Title
1.	10610703	ARIJIT DAS	Studies on Extraction and Purification of Rebaudioside-A and Dehydration of Aloe Vera Gel
2.	10610712	S. YADAV	Numerical Simulation of Particle Migration of Concentrated Suspension in Symmetric Bifurcation Channels
3.	10610713	MANISH KUMAR	Fabrication and Characterization of Poly(methyl methacrylate) (PMMA) Nanocomposites with Organically Modified Montmorillonite (MMT) and Layered Double Hydroxides (LDHs)
4.	11610708	NEELIMA TRIPATHI	Studies on Poly(Lactic Acid) and Polysaccharide Gum based Bionanocomposites for Adhesive and Gas Barrier Film Applications
5.	126107004	KANCHAGOPU SURESH	Development and Characterization of Fly ash Based Ceramic Membranes for the Separation of Oil-in-Water Emulsions
6.	126107013	PREMKUMAR K	Investigation Of Gas – Solid Circulating Fluidized Bed At Two Scales Using Experimental And Numerical Techniques
7.	126107020	NILAY SHARMA	Preparation and Characterization of Hydrophilic Polysulfone Ultrafiltration Membranes
8.	126107026	MR. HIMADRI SAHU	Preparation of Bio-waste derived Heterogeneous Catalysts for Methanolysis and Peroxidation Reactions
9.	136107022	VINOTH KUMAR R	Novel Low Cost Ceramic and Zeolite Ceramic Composite Tubular Membranes for Liquid Phase Separation Applications
10.	136107031	MR. KIBROM ALEBEL GEBRU	Preparation, Functionalization, and Characterization of Electro-spun and Phase-inverted Cellulose acetate Membranes for Advanced Wastewater Treatment Applications

List of students who have fulfilled the requirements for award of Ph.D. degree in Physics

Sl. No	Roll No	Name	Thesis Title
1.	09612124	INDRAJEET KUMAR	Pulsed Laser Deposition and Characterization of Diamond-like Carbon and Graphitic Thin Films and Graphene
2.	09612131	LALHRIATZUALA	Growth and Studies of II-VI Binary and Ternary Compounds: Nanostructures and Thin Films
3.	10612104	RAJITHA K V	Coherent control of optical pulse propagation through multi-level atomic media
4.	10612110	RAMESH GHOSH	Tunable Photoluminescence and Visible light Photocatalysis by Mesoporous Si Nanowires Array and its Heterostructures
5.	10612111	SK. MD. OBAID-ULLA	Growth Dynamics, Fabrication and Operational Stability of Organic Field Effect Transistors Based on SnCl ₂ Pc, VOPc and CuPc Molecules
6.	11612102	KARTIK SAU	Molecular Dynamics Investigation of Fast Ion Transport in Oxide Frameworks

Sl. No	Roll No	Name	Thesis Title
7.	11612105	TAPAS SINGHA	Renormalized Statistical Cumulants in Stochastic Surface Growth and Fluid Turbulence
8.	11612106	P. MAHESH	Preparation and characterization of lead free ($K_{0.5}Na_{0.5}$)NbO ₃ ferroelectric bulk and thin films
9.	11612110	SAMIT KUMAR GUPTA	Exploring parity-time (PT)-symmetry in Nonlinear Optics
10.	11612119	KHWAIRAKPAM SHANTAKUMAR SINGH	Spectroscopic studies on laser-induced plasma and surface characterization of copper in an externally applied static magnetic field at atmospheric pressure
11.	126121022	ANIL KUMAR C	Dielectric studies on Ba ₃ Nb ₄ O ₁₅ -BaWO ₄ bulk and thin films

List of students who have fulfilled the requirements for award of Ph.D. degree in Chemistry

Sl. No	Roll No	Name	Thesis Title
1.	09612204	ABHIK CHOUDHURY	Regioselective Bromination of Substituted 2'-Hydroxy Chalcones and Synthesis of Fused Nitrogen Heterocycles
2.	10612206	RAJESH C M	Studies on reactivity of amino acid Schiff bases and formation of multinuclear Cu(II) complexes
3.	10612222	KANNAN M.	Studies Towards Copper-Catalyzed Asymmetric Nitroaldol and IronCatalyzed Thia-Michael/Aldol Cascade Reactions
4.	10612234	ARINDAM GHOSH	Exploration of β -Oxodithioesters Toward Facile Access to Heterocycles & Synthesis of 2-Oxypyrrole and Fused Pyrazolo-pyridine involving MCRs Strategy
5.	10612235	SATAVISHA SARKAR	Synthesis of Nitrogen Containing Heterocycles & Anthranilate Esters Utilizing Multicomponent Reaction (MCR) Strategy
6.	10612236	G. MURUGAVEL	Copper-Catalyzed Multi-Component Synthesis and Biological Properties of Coumarin Derivatives
7.	10612238	TRIDIP RANJAN CHETIA	Design and Development of ZnO Morphologies for Enhanced Photovoltaic Characteristics: Synthesis, Characterization and Fabrication of Photoanodes for Semiconductor Quantum Dot/Dye Sensitized Solar Cells
8.	10612242	M. SENGODEN	Studies Towards C-N, C-O, C-S and C-Se Bonds Formations for the Construction of Five Membered Heterocycles
9.	11612201	DINABANDHU SAR	Studies Toward the Reactivity of Hydrazones for the Synthesis of Functionalized Pyrazoles and Nitromethyl Sulfones and the Application of Pyrazoles Thereof
10.	11612203	SUBHASHIS JANA	Design And Synthesis Of Fluorescent Unnatural Triazolyl Amino Acids And Constrained Molecular Scaffold And Their Applications In Peptidomimetics
11.	11612205	SOURAV KUMAR SANTRA	Transition Metal Catalyzed C-H Functionalization: Construction of C-C, C-O and C-X Bonds
12.	11612207	SANTOSH KUMAR BEHERA	Dual Fluorescence of a Few Organic Molecules: Intramolecular Charge Transfer and Intramolecular Proton Transfer
13.	11612208	HEMANTA DEKA	Nitric oxide reactivity of Cu(II) and Co(II) complexes with N-donor ligands
14.	11612209	PRADEEP SADHU	Studies Toward Chelation Assisted <i>Ortho</i> -Selective C-H Bond Functionalization of Arenes
15.	11612210	SOMNATH GHOSH	NO _x ($x=1,2$) reactivity of Co(II) and Ni(II) complexes with N-donor and O-donor ligands
16.	11612212	SAUGATA SAHU	Proton Transfer and Molecular Logic Functions of a Few Azole Derivatives
17.	11612214	BHARATHIRAJA G	Studies Toward 1,3-Enyne Cyclization for the Synthesis of Functionalized Pyrroles, Pyrazoles and Thiophenes

Sl. No	Roll No	Name	Thesis Title
18.	11612215	KOBIRUL ISLAM	Synthesis of Nitrogenous Heterocycles <i>via</i> Multicomponent Reaction and Exploration of Naphthalen-2-ol Sulfides to Access Benzylic Ethers & Naphthofurans
19.	11612218	SUCHANDRA BHATTACHARJEE	Exploration of Multicomponent Reactions for the Construction of Chromenes and Highly Substituted Benzene Derivatives
20.	11612220	DEBASISH KONER	Scattering Studies of Proton Transfer Reactions between Rare Gas Atoms
21.	11612221	HARIKRISHNA SAHU	<i>In-silico</i> investigation of optical and electronic properties of heterocyclic conjugated polymers
22.	11612222	BHANITA SHARMA	Computer Simulation Studies of the Association of Caffeine Molecules in Aqueous Solution and Its Role as an Inhibitor on Amyloid Aggregation
23.	11612224	PRIYA GHOSH	Lewis and Bronsted Acid Mediated Synthesis of Nitrogen and Oxygen Heterocycles
24.	11612225	NITHI PHUKAN	Supramolecular Chemistry of Thiazole Based Urea/Thiourea and Imine/Amine Derivatives: Polymorphism, Molecular/ion recognition
25.	11612227	SUJIT MAHATO	Direct C(sp ³)-H Functionalization of Aliphatic Amines
26.	11612229	SURAJ KUMAR PATHAK	Synthesis and Characterization of Nonconventional Liquid Crystals
27.	11612231	RITUPARNA BORAH	C1 Domain: Investigation of Diacylglycerol/Phorbol Ester Binding Properties and Development of Ligands
28.	11612234	GARGI BORGHAIN	Effect of Confinement on Protein Conformation in Presence of Osmolytes Urea and Trimethylamine N-Oxide: Replica Exchange Molecular Dynamics Simulation Study
29.	11612235	SAMEER HUSSAIN	Design and Development of Fluorescent Probes based on Poly(<i>p</i> -phenylene) for Sensing Applications
30.	11612237	PRASENJIT BARMAN	Influence of the Ligand Architecture on Reactivity of High-Valent Non-Heme Metal Intermediates
31.	11612239	NIRMALI PRABHA DAS	Dynamics of Spiral and Scroll Waves: An Experimental and Numerical Study
32.	11612240	DHARM DEV	Development of <i>ortho</i> -NosylOXY as a Novel Coupling Reagent for Peptide Synthesis and Related Organic Transformations
33.	11612241	SURESH VASIMALLA	Design and Synthesis of Perylenediimide, Naphthalenediimide Based n-Type Organic Semiconducting Polymers, Small molecules: Fabrication of High Performance Organic Field-Effect Transistors
34.	126122004	MANAS KUMAR MONDAL	Synthesis, Characterization and Spectroscopic Studies of Transition Metal Complexes with Chalcogen (O, S, Se and Te) Bridged Non-innocent Ligands
35.	126122031	SOHAM SAMANTA	A Progressive Endeavor to Develop Efficient Organic Chromogenic and Fluorogenic Sensing Probes for Ionic and Neutral Guests

List of students who have fulfilled the requirements for award of Ph.D. degree in Mathematics

Sl. No	Roll No	Name	Thesis Title
1.	09612312	CHITRALEKHA SARKAR	Higher order compact schemes and their applications to problems with complex geometries
2.	09612315	HIMADRI NAYAK	On the Multiset of Factors of a String
3.	10612301	SHIBSANKAR DAS	On Approximate Parameterized String Matching and Related Problems
4.	10612306	DISHARI CHAUDHURI	On Units in Group Algebras

Sl. No	Roll No	Name	Thesis Title
5.	10612309	KALYAN MANNA	Dynamics And Analysis Of Models For Chronic Hepatitis B Virus Infection
6.	10612310	KUMARI SALONI	The Hilbert-Samuel polynomial and its, coefficients
7.	11612306	SWARUP KUMAR PANDA	On the Inverse of Bipartite Graphs with Unique Perfect Matchings and Reciprocal Eigenvalue Properties
8.	11612308	DEBOPAM CHAKRABORTY	A Study of Class Number of Real Quadratic and Cubic Fields
9.	11612310	MD. NASIM AKHTAR	Fractal Dimensions and Approximations of α -Fractal Interpolation Functions
10.	11612315	MANJANNA B	Algorithms for Geometric Covering Problems

List of students who have fulfilled the requirements for award of Ph.D. degree in Humanities and Social Sciences

Sl. No	Roll No	Name	Thesis Title
1.	08614101	MADHURI SAIKIA	Colonial Heritage, Urban Development in Guwahati city: a Study in Heritage Resource Management
2.	09614103	SUGANDHA KAUR	Lexical Representation and Processing in Bodo – Assamese Bilinguals
3.	09614113	PAYEL CHAKRABARTI	A Study of Media Representation with Reference to Reporting of Violence in Assam
4.	09614114	RUTH LALSIEWSANG BUONGPUI	Women And Legal Pluralism: A Study Among Hmars Of Manipur
5.	10614107	RUPAN BORO	A Study of Horizontal Education Inequalities in Bodoland Territorial Area Districts of Assam
6.	10614111	NIRMALA DEVI	Status of Health among Rural Households of Assam: A Study in Reference to Public Health Sector
7.	10614115	ROSY SAIKIA	Representing the Visual: A study of Aesthetics in Rainer Maria Rilke's Selected Works
8.	10614117	MINAKSHI DAS	An Exploration of Subjectivity in the Phenomenology of Edmund Husserl: From Epistemic Subject to Ethical Person
9.	11614101	KULADHAR SAIKIA	The Economics Of Crime: Analysis Of Trend, Pattern And Determinants Of Criminal Behaviour In The Districts Of Assam
10.	11614104	SUPARANA KATYAINI	Science-Policy Interface to Mitigate Water Scarcity In India: An Assessment of Virtual Water Flows
11.	11614106	AMALESH GOPE	The Phonetics And Phonology Of Sylheti Tonogenesis
12.	11614108	BANDANA KHATANIAR	An Empirical Analysis Of Environmental Consequences Of Economic Growth In Asia
13.	11614117	MADHULIKA KUMARI	Science, Agriculture And Public Policy: A Study Of Government-Academia Industry Networking In India

List of students who have fulfilled the requirements for award of Ph.D. degree in Centre for Energy

Sl. No	Roll No	Name	Thesis Title
1.	11615102	VIKRAM KUMAR	Development of sustainable bioprocess for biodiesel production from novel freshwater microalga <i>Chlorella sorokiniana</i> FC6 IITG
2.	11615104	DEVENDRA KUMAR MARAVI	Overexpression of <i>AtDGAT1</i> and metabolome analysis of <i>Jatropha curcas</i> L. for enhanced oil in seeds and leaves
3.	126151007	JNYANA RANJAN PATI	Drying Of Granular Materials In Rotating Fluidized Bed In A Static Geometry (RfbSg)

List of students who have fulfilled the requirements for award of Ph.D. degree in Centre for the Environment

Sl. No	Roll No	Name	Thesis Title
1.	09615205	BHASKAR DAS	Microalgae as candidate for phenol bioremediation and biofuel production

List of students who have fulfilled the requirements for award of Ph.D. degree in Centre for Nanotechnology

Sl. No	Roll No	Name	Thesis Title
1.	11615301	SAILAPU SUNIL KUMAR	Engineering Devices with Functional Nanomaterials

PROGRESS IN CONSTRUCTION WORKS

Sl. No.	Works	Cost of works (₹ in lakhs)	Physical progress		Total progress upto 31.03.18		This year
			Upto 31.03.17	During 2017-2018	Physical	Financial (₹ in lakhs)	
	Hostel Building						
1.	Boys' Hostel 10 (956 capacity with 31050 sqm floor area)	8228.00	95%	5%	100%	6761.33	The whole hostel including Dining and Kitchen area: Kitchen, Dining along with food court at 1 st floor, Central common Facilities: All common facilities including games rooms, security, Warden and care taker's Office etc are complete and handed over for use.
2.	Boys' Hostel 11 1152 capacity with 34785 sqm floor area)	9665.03	45%	20%	65%	4968.26	Superstructure works and electrical works in Block A are in progress. Foundation works in Block B and C is complete. About 500 rooms are expected to be completed by 31.10.2018. The building including the dining hall is expected to be completed by March 2019.
3.	Extension of Academic Complex						
a)	(Phase-IV & Classroom)						
	Department of Chemistry, EEE & ME Class room (9875 sqm floor area)	6094.68	85%			6832.27	<i>Phase-IV</i> The expansion work of Chemistry, EEE and Mechanical Department has been completed and is in use. <i>Class Room Complex:</i> Civil, HVAC and electrical works for 18 nos. 120 capacity halls has been completed. Finishing works for 6 nos. 200 capacity halls is in progress. The work is expected to be completed within July 2018.
b)	Research Building Complex (1850 sqm per floor)	5675.00	65%	25%	90%	5488.18	Works upto G+3 level has been completed in March 2018. At present finishing work in 4 th and 5 th floor is in progress. The work is expected to be completed within June 2018.

Sl. No.	Works	Cost of works (₹ in lakhs)	Physical progress		Total progress upto 31.03.18		This year
			Upto 31.03.17	During 2017-2018	Physical	Financial (₹ in lakhs)	
c)	(Phase – V) DoD, CSE, Physics, Chemical Engg, HSS, Mathematics, And Centre for Nano Technology. (19045 sqm floor area)	6944.74	80%	10%	90%	3518.56	Work was allotted in March 2015. <i>DoD, CSE, Physics, Chemical, HSS and Math:</i> All major works are complete and handing over is in phase manner is in progress. <i>Nano-Centre:</i> All piling works are done and pile caps are completed & about 85% work is complete except in clean Room area.
4.	Residential Building						
	Prefabricated residential quarters (1440 sqm)	470.10	25%	70%	95%	326.99	Construction work of the building has been completed on March 2018 and all the 12 quarters are under occupation. Car parking work is in progress and is likely to be completed in June 2018.
	Other Works						
5.	Guest House 2 (15090 sqm floor area)	4059.00	80%	15%	95%	3851.00	As on date around 95% works have been completed. Out of 165 room, 88 nos. rooms were completed till date and another 50 nos rooms are about to complete. The balance 27 nos room will be completed by the end of July'18 and it is expected to complete the whole work in all respect within August'18.
6.	Dormitory for Security (2875 sqm floor area)	808.00	70%	20%	90%	592.11	Work of One dormitory building has been completed in March 2018. Though the other dormitory building was nearly completed, but due to severe crisis for accommodation of newly joined faculties the Institute had decided to convert the building as transit accommodation for faculties. Accordingly, the plan of the building has been modified to create 12 residential units in the dormitory building. Modification work in the building are in progress and the work is expected to be completed by June 2018.
7.	Maintenance of Internal Road phase-II (8.5Km)	1809.68 (revised)	50%	884.78	70%	884.77	The APWD (NH) has taken up the work from November 2016 and almost 70% of work has been completed so far after further extension of the work for a value of Rs. 884.77 Lakhs. The work is under progress and hope to be completed within November 2018.

Sl. No.	Works	Cost of works (₹ in lakhs)	Physical progress		Total progress upto 31.03.18		This year
			Upto 31.03.17	During 2017-2018	Physical	Financial (₹ in lakhs)	
8.	Pre-Primary School Building and Daycare Centre. (2500 sqm floor area)	835.58	45%	55%	100%	753.58	The work has been completed & inaugurated by Prof. Gautam Biswas, Director, IIT Guwahati on 19 th April. The building is under use.
9.	Estate Office (3000 sqm floor area)	1011.51	15%	15%	30%	281.14	The foundation work is complete and structural work including walls and plastering works are in progress. The work of First floor is expected to be completed by 31.10.2018. The whole building is expected to be completed by March 2019.
10.	Boundary wall Phase-V (3.9 Km)	1849.00	2%	35%	37%	346.49	Out of the total length of 3900.00 m in this phase, 1750.00 mtrs is already completed. The piling work in low lying marshy area is almost 50% completed and wall work is also under progress. The work is completed within October 2018.
11.	Parking area including open hut, cycle repairing, bike repairing and external toilet in Market Complex	112.06	85%	15%	100%	112.06	The work is completed and in use.
12.	Dormitory for Guest House (2155 sqm floor area)	488.86	20%	30%	50%	154.00	The 70% of structural work has been completed till date. Masonry and other works are in progress.
13.	Electrical & AC Infrastructure	87.22	100%	100%		87.22	25 Kwp solar plant has been installed and operational.
14.	NEW WORK IF ANY						

Appendix-V

EQUAL OPPORTUNITY CUM SPECIAL RESERVATION

As Liaison Officer (ST/SC Cell), ensured with Administration Section for compliance of Govt orders for reservation in service including OBC & PWDs.

Taken steps to collect data from concerned officials/ sections to understand representation of women, SC, ST, OBC and PWDs students/ employees in admissions/ jobs.

Hosted smoothly for the first time in IITG, 22nd Co-ordination committee meeting of Federation of "All IITs SC/ ST Employee Association" during 13th to 15th November 2017, in association with "IITG SC/ST employees Sangha", employees from older IITs took part in this Co-ordination committee meeting.

Lecture

A lecture on "Dr. B.R Ambedkar's vision for social inclusion and social justice" was held on 05th January 2018. The speaker was Ms. Dona Biswas from Ambedkar University, Delhi. A large number of students and employees actively participated.

Office Automation

Initiated office automation in coordination with Computer & Communication Centre/HoC to send email to all SC/ST students (with various options like batch wise/ department wise, only SC or ST, PWDs, OBC etc.) and to create on line data base related to benefits received like book allowance, IITG scholarships, assistantship to PhD students, Laptops etc., the process is under progress.

A link in IITG website for online Complaints Registration Prevention of Caste Based Discrimination was activated.

Annual Returns SC/ST Reports I & II

As per directive of the MHRD, the Liaison Officer has ensured with the Administration to submit Annual Returns SC/ST Reports I & II. (Statistics of Employees: Teaching Non-Teaching, representation of SC/ST, Male /Female and PWDs Employees).

Implementation of Scheduled Castes Sub Plan (SCSP) and Tribal Sub Plan (TSP) in IIT Guwahati

Learning Equipment:

This year 140 new laptops as an important learning equipment were distributed to the July batch 2017

undergraduate, MSc & MA (Development Studies) SC/ ST students under Scheduled Castes Sub Plan (SCSP) and Tribal Sub Plan (TSP) programme.

Book Allowances

This year 171 undergraduate, MSc & MA (Development Studies) SC/ST students have benefited under "Book Allowances" scheme.

Assistantship and their Extension

"Assistantship and their Extension" under this programme assistantship was provided to such regular SC/ST PhD students who could not complete their PhD programme as per IITG, norms but continuing the same. This year total 23 regular SC/ ST PhD students have benefited this assistantship.

Central Sector Scholarship

SC/ST students were guided to apply online for Central Sector Scholarship 2017

Orientation Meeting

Orientation meeting was held for fresher SC/ST/PWDs students on 26th July, 2017 both for UG & PG.

Internal Transport

The Nodal Officer in respect of SC, ST, OBC (non-creamy layer), PWD & Minorities (MHRD) has taken steps especially for the PWDs students based on their requirement to arrange transport for smooth movement in campus.

For smooth movement PWDs students in the Academic Complex and Administrative Building six (6) folding wheel chairs were purchased in the month of July and kept readily available with the Security counters.

Access-Audit for Barrier Free Campus

A committee has been constituted to conduct accessibility audit in campus and later recommend suitable restructuring to make campus user- friendly to PWDs. Subsequently, the Ghorajan River Bridge was renovated to make it user-friendly to PWDs students/ wheel chair user and ramps, signage etc were provided in many buildings/places and coordinated

with Academic Affairs to allocate class room/s suitably for tutorial classes to 1st year PWDs B.Tech students.

Proposal was sent to Dean (SA) to give time slot in the swimming pool for PWDs students and guided students to obtain railway concession forms.

Facility of Screen Reader /User-Friendly IITG website

For employees of concerned Depts./ Sections handling their webpages a “briefing on webpage develop or maintain & control” was held on 17.11.2017 in coordination with Computer & Communication Centre/HoC. The objective of this briefing was to guide them to make concerned webpages user-friendly to PWDs through “**Screen Reader Access**”; the process is under progress.

Advocacy for Proactive Inclusiveness of PWDs

Due to advocacy of this office our students on 26th January 2018, organised Marathon for PWDs students and for the first time in the history of inter IIT sports meet to be hosted by IITG in 2018 some events have been included especially for PWDs students.

Coordinated with Hostel Affairs Board for hostel room allotment to PWDs students and guided their parents from time to time on various issues.

In November 2017 nominated our PwDs students for National Convention for Youth with Disabilities hosted by National Centre for Promotion of Employment for Disabled People (NCPEDP) Delhi.

Guidance and Counselling

Provided guidance and counselling to students with respect to academic, financial, social and other matters and to enhance the diversity within campus and also helped to avoid stress and other problems. Motivated students to take up project/assignment concerning issues of PWDs or contemporary needs of our society.

Outgoing students were given guidance and counseling with regard to higher studies/ job/self-employment / tap financial resources for entrepreneurship etc.

Implementation of RTI Act, 2005

The Public Information Officer, IITG attended to all RTI applications in terms of collection of information/ record from Dept./Section and send response within stipulated period to applicants, transfer of RTI applications to other public authority, submission of quarterly/annual reports to MHRD/CIC and periodical update of our RTI website etc. As per directive of DoPT initiated suo motu disclosure under Section 4 of RTI Act, 2005 and designation of deemed public information officers (DPIOs) from all Depts/ Sections to operate online RTI- MIS Portal.

For smooth operation of online RTI-MIS portal training was held on 16th March 2018 for all Deemed Public Information Officers (DPIOs). In this regard an experienced trainer/ resource person was invited from RTI- Project Monitoring Unit (DoPT).

Appendix-VI

SUMMARY OF INSTITUTE ACCOUNTS

Balance Sheet as on 31 March 2018

Sources of Funds	Current Year	Previous Year
CORPUS/CAPITAL FUND	12,23,15,01,605	11,62,82,05,282
DESIGNATED/ EARMARKED / ENDOWMENT FUNDS	1,59,22,44,808	66,78,51,623
CURRENT LIABILITIES & PROVISIONS	5,55,86,10,211	3,42,96,24,472
TOTAL	19,38,21,56,624	15,72,56,81,377

Application of Funds	Current Year	Previous Year
FIXED ASSETS		
Tangible Assets	9,49,52,55,740	8,95,96,01,506
Intangible Assets	5,51,76,734	59,803,877
Capital Works-In-Progress	3,70,52,01,774	3,149,022,313
INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS		
Long Term	1,34,36,32,501	54,02,55,306
Short Term	-	-
INVESTMENTS - OTHERS	32,76,58,837	32,17,13,396
CURRENT ASSETS	1,85,15,16,460	2,05,00,25,334
LOANS, ADVANCES & DEPOSITS	2,60,37,14,578	64,52,59,644
TOTAL	19,38,21,56,624	15,72,56,81,377

Income and Expenditure Account for the year ended on 31 March 2018

Particulars	Current Year	Previous Year
INCOME		
Academic Receipts	28,77,60,758	277,050,771
Grants / Subsidies	2,43,00,00,000	1,50,00,00,000
Income from investments	2,70,67,763	-
Interest earned	7,11,660	16,21,825
Other Income	6,84,34,231	4,52,80,256
Prior Period Income	7,37,735	7,35,023
TOTAL (A)	2,81,47,12,147	1,82,46,87,875
EXPENDITURE		
Staff Payments & Benefits (Establishment expenses)	1,78,08,66,831	1,31,59,37,258
Academic Expenses	76,98,20,846	74,39,29,312
Administrative and General Expenses	23,74,44,982	22,24,17,620
Transportation Expenses	2,26,37,191	2,47,61,934
Repairs & Maintenance	43,01,60,274	32,02,13,948
Finance costs	1,64,250	1,04,625
Depreciation	53,85,98,014	48,08,62,239
Other Expenses	-	-
Prior Period Expenses	6,69,69,642	7,37,116
TOTAL (B)	3,84,66,62,029	3,10,89,64,052
Balance being excess of Income over Expenditure (A-B)	(1,03,19,49,883)	(1,28,42,76,177)
Transfer to / from Designated Fund		
Building fund		
Others (specify)		
Balance Being Surplus / (Deficit) Carried to Capital Fund	(1,03,19,49,883)	(1,28,42,76,177)

Receipt and Payment Account for the Period Ended on 31 March 2018

	RECEIPTS	Current Year	Previous Year		PAYMENTS	Current Year	Previous Year
I.	Opening Balance			I.	Expenses		
	a) Cash Balances	2,54,000	2,32,000		a) Establishment Expenses	1,19,52,25,071	1,05,89,37,276
	b) Bank Balance				b) Academic Expenses	61,64,02,244	62,04,35,287
	i. In Current accounts	53,92,16,461	22,18,03,694		c) Administrative Expenses	19,55,48,309	12,06,33,411
	ii. In Savings accounts	1,40,02,88,540	1,02,85,66,846		d) Transportation Expenses	9,06,497	7,84,546
	iii. Deposit accounts	-	-		e) Repairs & Maintenance	6,84,276	1,37,522
II.	Grants Received				f) Prior period expenses	-	1,76,683
	a) From Government of India	2,49,42,00,000	3,42,00,00,000		g) Finance Cost	1,64,250	1,04,625
	b) From State Government	-	-	II.	Payments against Earmarked/ Endowment Funds	55,00,94,896	10,48,42,524
	c) From others	-	-	III.	Payments against Sponsored Projects/Schemes	69,49,00,271	40,71,73,757
	d) Grants in aid receivable for 17- 18 received during the year	18,04,41,207	54,65,00,000	IV.	Payments against Sponsored Fellowships/Scholarships	1,83,91,549	2,21,70,695
				V.	Investments and Deposits made	1,18,95,00,000	
III.	Academic Receipts	46,71,44,933	43,69,42,025		a) Out of Earmarked/Endowments funds	2,85,53,544	14,00,00,000
IV.	Receipts against Earmarked/ Endowment Funds	1,41,76,48,520	16,07,89,045		b) Out of own funds (Investments- Others}	1,17,54,450	20,00,00,000
V.	Receipts against Sponsored Projects/Schemes	91,89,55,268	69,23,02,426	VI.	Term Deposits with Scheduled Banks	11,04,08,431	11,08,69,228
VI.	Receipts against sponsored Fellowships and Scholarships	2,74,17,226	1,93,85,815	VII.	Expenditure on Fixed Assets and Capital Works - in- Progress	-	
VII.	Income on Investments from		-		a) Fixed Assets	7,33,63,537	16,80,22,402
	a) Earmarked/Endowment funds	11,99,224			b) Capital Works- in- Progress	-	2,40,48,893
	b) Other investments	27,54,450		VIII.	Other Payments including statutory payments	37,25,90,376	56,80,14,115
VIII.	Interest received on						
	a) Bank Deposits	5,34,96,814	88,51,893	IX.	Refunds of Grants	-	74,62,954
	b) Loans and Advances	7,87,806	-	X.	Deposits and Advances	52,04,38,585	2,62,20,58,919
	c) Savings Bank Accounts	2,50,20,605	1,07,60,964	XI.	Other Payments	2,34,71,39,283	2,20,400
IX.	Investments encashed	48,55,64,075	28,93,44,466	XII.	Closing balances		

	RECEIPTS	Current Year	Previous Year		PAYMENTS	Current Year	Previous Year
X.	Term Deposits with Scheduled Banks encashed	7,39,59,763	15,57,74,565		a) Cash in hand	2,61,000	2,54,000
XI.	Other income (including Prior Period Income)	4,95,76,146	3,56,36,178		b) Bank balances		
XII.	Deposits and Advances	19,32,92,227	70,37,51,045		In Current Accounts	13,66,55,110	53,92,16,461
XIII.	Miscellaneous Receipts including Statutory Receipts	78,68,50,908	36,58,29,234		In Savings Accounts	1,27,57,60,189	1,40,02,88,540
XIV	Any Other Receipts - Fixed Assets/ Direct-Indirect expenses	22,06,73,695	1,93,82,044		In Deposit Accounts	-	-
	TOTAL	9,33,87,41,868	8,11,58,52,238		TOTAL	9,33,87,41,868	8,11,58,52,238