भारतीय प्रौद्योगिकी संस्थान गुवाहाटी

INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI

www.iitg.ac.in

ANNUAL REPORT

2024-2025

ANNUAL REPORT

2024-2025

Indian Institute of Technology Guwahati

Guwahati 781039, INDIA

Indian Institute of Technology Guwahati was established in the year 1994 and has completed 25 years of glorious existence. IIT Guwahati is the only academic institution in India that occupied a place among the top 100 world universities – under 50 years of age – published by London based Times Higher Education (THE) in the year 2014 and continues to do this even today in various International Rankings. In the recently announced QS Ranking 2024 IIT Guwahati has secured 32nd rank globally (37th in 2023) in the 'Research Citations per Faculty' category. The Institute has gained rank =364 in World University Ranking globally. IIT Guwahati was ranked 6th globally in 'Affordable and Clean Energy' in the THE Impact Ranking 2023. IIT Guwahati has retained the 7th rank among the best engineering institutions of the country in the 'India Rankings 2023', also achieved the rank of 9th in the 'Overall' category and 9th position in 'Research Institutions' category in this year (2023) declared by National Institutional Ranking Framework (NIRF) of the Union ministry of Human Resource Development (HRD). IIT Guwahati also ranked 3rd in the category of 'Residential University - AICTE' in the third edition of annual 'Swachh Campus Ranking 2019' for higher educational institutions organised by MoE. IIT Guwahati has one of the most beautiful educational campuses in the country that provides an ideal setting for learning and research. It is strongly believed that IIT Guwahati has been able to fulfill the aspirations of people of the North East region to a larger extent, since its birth was through Assam Accord signed in 1985. The institute is fully residential for the students, enriched with world-class facilities and is empowered with a young and dynamic faculty and staff. The vision of IITG is to become a preferred destination of seeking best science, engineering and technology education and to be recognized internationally for excellence in research, pursuit for developmental activities and deep concern for students' care. An important feature of academic excellence is the continuous replenishment of ideas and creation of new areas of research and innovation, attracting organizations seeking collaboration in education, research and development as well as product development. In a fast changing world, keeping pace with the ever-increasing number of areas of research and application poses a major challenge to this Institute. IIT Guwahati is trying to augment the research initiatives in all the areas of Sciences and Technology in general and in Nano-science & technology, Bioengineering and Data sciences in particular. Initiation of research in some of the cutting edge areas of Biological sciences namely Genomics, Developmental Biology, Health Care and Bioinformatics, Flexible Electronics, Advanced Functional Materials, Sustainable Polymers, Water Resources and Management is a testament to the aspiration of IIT Guwahati to excel in research. The Scope of Environmental Science and Data science is inherently interdisciplinary and expanding rapidly. Recognizing the challenges for environmentally sustainable development, IIT Guwahati emphasizes an interdisciplinary research paradigm in Energy and Environment. There is a pressing need to integrate environmental engineering and sciences across various disciplines to solve problems that have important societal impact. It is indeed a challenging task to match the ever-increasing need for funds and providing infrastructure for these emerging and futuristic research areas, and IIT Guwahati has resolutely taken this challenge in its stride.

Further, IIT Guwahati has set goals to be recognized as one of the world's top 150 Institutes/Universities within the next five years. This will include attracting external grants and research funding at the level of internationally well ranked Institutes, to furnish state-of-the-art facilities for all programs, attract International faculty and students to spend time at IIT Guwahati, enhance the perception globally, fostering academic excellence and freedom while maintaining rigorous academic standards and to become a preferred destination for transformative educational experience.

Particulars	2023-24	2024-25
Student Strength	8405	8288
Faculty Strength	445	464
R &D Funds Received (In crores)	235.13	150.13
Total Research Publications	2385	2296

Major R&D Project Received:

Sl. No.	Department/ Centre	Principal Investigator	Project Title	Funding Agency	Sanctioned Amount
01	Electronics and Electrical Engineering	Debabrata Sikdar	Dedicated RF devices based on advanced physical principles and metamaterials for enhanced MRI performance	DST	1,13,89,487
02	School of Agro and Rural Technology	Siddhartha Singha	Establishment of Trees Outside Forests (TOF)-based Enterprise Incubation Centres (TBEICs) in State of Assam	USAID	1,04,20,000
03	Centre for Nanotechnology	Tanmay Dutta	Interlayer exchange coupling based non-volatile, low-complexity and scalable PUF hardware	Ministry of Education	90,00,000
04	Civil Engineering	Budhaditya Hazra	Development of Flexible Ultrasonic Piezo Sensors For Structural Health Monitoring-Achieving Goal Towards Smart Infrastructure	Ministry of Education	74,04,000

05	Biosciences & Bioengineering	Rajkumar Parshottambhai Thummer	Development of clinical grade off-the-shelf human induced pluripotent stem cell (hiPSC) derived granulocytes for multidrug resistant microbial sepsis	ICMR	62,39,313
06	Electronics & Electrical Engineering	Mahima Arrawatia	Proposal for Development of Proximity Sensor (FMCW Radar + Antenna) for 30 MM Naval Fuze	HBL	60,00,000
07	Civil Engineering	Anjan Kumar Siddagangaiah	Performance Evaluation of PMGSY Roads Constructed Using New Technology Full Depth Reclamation (FDR) with Cement and Additive	NRRDA	53,46,000
08	School of Agro and Rural Technology	Sudip Mitra	Assessment of Bioavailability of Microplastics in Soils and their Remediation through Biochar Prepared from Locally Available Agro-horti Refuse	SERB	48,12,000
09	Civil Engineering	Santu Kar	Enhancing Construction Safety, Sustainability, and Project Performance Using Cutting-Edge Technologies	NBCC (India) Limited	40,18,272
10	School of Energy Sciences and Engineering	R Anandalakshmi	Transforming Energy Efficiency in Industries: Comprehensive Analysis and Innovative Solutions	IIT Madras	30,00,000
11	Chemical Engineering	Vimal Katiyar	Establishment of 'North Eastern Science and Technology Cluster for promoting Research,	DoNER Ministry	9,98,00,000

			Innovation and Skill Development (NE-S & T Cluster)		

MAJOR NATIONAL AND INTERNATIONAL CONFERENCES ORGANIZED

Sl. No.	Name Of Conference / Seminar/Workshop	Department/ Centre	Date
01	Indo-Japan Bilateral Symposium (IJBS-2023) on Technologies for Bio Economic Development of NER".	Bioscience & Bioengineering	March 03-04, 2023
02	North East Research Conclave (NERC)-2022; Sustainable Science and Technology	Chemistry	May 20-22, 2022
03	Spring School 2023 Ministry of Education, Culture, Sports, Science and Technology, Japan	Chemical	March 03-04, 2023
04	International Workshop on Scaling Blockchains: From Bitcoin to the Lightning Network	Computer Science	August 23, 2022
05	Research Workshop on 'Problem based Learning' At ICoRD'23	Design	January 11, 2023
06	National Conference on Communications 2023	EEE	February 23-26, 2023
07	ISS Young Researchers' Workshop	Humanities	December 18-19, 2022
08	Annual Foundation School -III (AFS-III)	Maths	June 20-July 16, 2022
09	International Conference on Biomaterials, Regenerative Medicine and Devices (BIO-Remedi 2022).	Mechanical	Dec 15, 2022 -Dec 18, 2022
10	Structured Light and Spin-Orbit Photonics 2022	Physics	November 29 - December 02, 2022

Annual Report 2024-25: A Quick Look

Department/Centre/School	
Academic Department	**11**
Academic Centre	**09**
Schools	**05**
Extramural Centre	**05**

Students Admitted	
Preparatory	08
BTech/BDes	978
MTech/MDes	636
MSc/MA	224
PhD	424
MS (R)	13
Dual Degree	10
Total	**2293**

Student Strength	
Preparatory	10
BTech/BDes	3968
MTech/MDes	1233
MSc/MA	448
PhD	2504
MS (R)	31
Dual Degree	41
Total	**8235**

Number of degree awarded in 27th Convocation	
BTech/BDes	941/64
MTech/MDes	499/57
MSc	172
MA	51
MS (R)	18
MBA	21
PhD/Duel Degree	270
Total	**2093**

Staff Strength	
Academic Staff/ Faculty	464
Technical Staff (Group A)	70
Administrative Staff (Group A)	32
Technical & Administrative Staff (Group B&C)	464
Total	**1030**

Research Papers	
Research Publications	2296
Total	**2296**

Grants (In Crores)	
Revenue	513,42,00,000
Capital	100,00,00,000
Total	**613,42,00,000**

Consultancy Projects	
New Projects	338
Total	**338**

Sponsored Research Projects	
New Projects	100
Total	**100**

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Organisation
IIT Council
Board of Governors
Senate
Finance Committee
Building & Works Committee
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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 Disaster Management and Research
Centre for Drone Technology
Centre for the Environment
Centre for Indian Knowledge Systems
Centre for Intelligent Cyber Physical Systems
Centre for Linguistic Science and Technology
Centre for Nanotechnology
Centre for Sustainable Polymers
Centre for Sustainable Water Research
Manekshaw Centre of Excellence for National Security Studies and Research

EXTRAMURAL CENTRES

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

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SCHOOLS

School of Agro and Rural Technology
School of Business
Mehta Family School of Data Science and Artificial Intelligence
School of Energy Science and Engineering
School of Health Science and Technology

PART III

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PART I

Organisation

IIT Council

Board of Governors

Senate

Finance Committee

Building & Works Committee

Executive Summary

ORGANISATION

Chairman, Council of IITs
Union Minister for Ministry of Education

Chairman, Board of Governors
Dr. Rajiv I. Modi

Officiating Director
Prof Rajeev Ahuja (Officiating)(upto 14.05.2024)
Prof. Devendra Jalihal (from 15.05.2024)

Dean, Administration
Prof. Sukumar Nandi (from 14.09.2024)

Dean, Academic Affairs
Prof. Kanduru V. Krishna

Dean, Academic Research
Prof. Gopal Das (from 25.03.2025)

Dean, Faculty Affairs
Prof. S. Ravi (upto 30.01.2025)
Prof. Debabrata Chakraborty (from 31.01.2025)

Dean, Research & Development
Prof. Vimal Katiyar (upto 13.11.2024)
Prof. Rohit Sinha (from 14.11.2024)

Dean, Students' Affairs
Prof. A. Perumal

Dean, Infrastructure Planning & Management
Prof. M. K. Bhuyan (upto 23.02.2025)
Prof. Anjan Dutta (from 24.02.2025)

Dean, Alumni and External Relations
Prof. Sumana Dutta (from 05.03.2024)

Dean, Outreach Education Programme
Prof. A. S. Achalkumar (04.03.2024)
Prof. Anupam Saikia (from 05.03.2025)

Registrar (In-charge)
Prof. Diganta Goswami, Registrar (In-charge) (upto 20.02.2025)
Mr. K K Tiwari (from 21.02.2025)

Librarian
Dr. Tamal Kumar Guha

Head, Department of Biosciences and Bioengineering
Prof. Rakhi Chaturvedi (upto 26.12.2024)
Prof. Utpal Bora (from 27.12.2024)

Head, Department of Chemical Engineering
Prof. Kaustubha Mohanty (upto 10.04.2025)
Prof. Subrata Kumar Majumder (from 11.04.2025)

Head, Department of Chemistry
Prof. Aditya Narayan Panda (upto 13.05.2025)
Prof. Biplab Mondal (from 14.05.2025)

Head, Department of Civil Engineering
Prof. Rajib Kumar Bhattacharjya

Head, Computer Science & Engineering
Prof. T. Venkatesh

Head, Department of Design
Prof. Pratul Chandra Kalita

Head, Department of Electronics & Electrical Engineering
Prof. Harshal B. Nemade

Head, Department of Humanities & Social Sciences
Prof. Priyankoo Sarmah

Head, Department of Mathematics
Prof. Natesan Srinivasan

Head, Department of Mechanical Engineering
Prof. K.S.R.K. Murthy (upto 29.08.2024)
Prof. Shyamanta M. Hazarika (from 30.08.2024)

Head, Department of Physics
Prof. Bosanta R Boruah

Head, Computer and Communication Centre
Prof. Ratnajit Bhattacharjee (upto 16.02.2025)
Prof. Ashok Singh Sairam (from 17.02.2025)

Head, Centre for Disaster Management and Research
Prof. Arunasis Chakraborty (from 14.02.2024)

Head, Centre for Intelligent Cyber-Physical Systems
Prof. S. Kanagaraj (from 11.11.2024)
Prof. R. Ganesh Narayanan (from 12.11.2024)

Centre for Drone Technology
Prof. Pradip Kr. Das

Head, Centre for Central Instruments Facility
Prof. Gagan Kumar

Head, Centre for Environment
Prof. Animes Kr. Golder

Head, Centre for Educational Technology
Prof. T.V. Bharat

Head, Centre for Nanotechnology
Prof. Akshi Kumar A. S.

Head, Centre for Indian Knowledge System
Prof. Uday Shanker Dixit

Head, Centre for Linguistic Science and Technology
Prof. Sanasam Ranbir Singh

Head, Centre for Career Development
Dr. Lalit Mohan Pandey (upto 14.12.2024)
Dr. John Jose (from 15.12.2024)

Head, Centre for Sustainable Polymers
Dr. Amit Kumar

Head, Centre for Sustainable Water Research
Prof. Suresh A. Kartha

Head, School of Agro and Rural Technology

Prof. Ajay Kalamdhad (upto 30.04.2024)

Prof. Sudip Mitra (from 01.05.2024)

Head, School of Business

Prof. Sukhomay Pal (upto 13.05.2025)

Director, in-charge of SOB (from 14.05.2025)

Head, Mehta Family School of Data Science & AI

Prof. Ratnajit Bhattacharjee

Head, Jyoti and Bhupat Mehta School of Health Science & Technology

Prof. Dipankar Bandopadhyay (upto 06.10.2024)

Prof. Subramani Kanagaraj (from 07.10.2024)

Head, School of Energy Science and Engineering

Prof. Vaibhav V. Goud

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	**Member**
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

BOARD OF GOVERNORS

Dr. Rajiv I. Modi Chairman & Managing Director Cadila Pharmaceuticals Limited Cadila Corporation Campus, Sarkhej-Dholka Road, Bhat, Ahmedabad – 382 210, Gujarat	**Chairman**	
Prof. Devendra Jalihal (from 15.05.2024)	**Director**	**Member, ex-officio**
Prof Rajeev Ahuja (upto 14.05.2024)	**Officiating Director**	
Additional/ Joint Secretary (TE) Ministry of HRD, Shastri Bhawan New Delhi	**Member**	**Nominees of the IIT Council**
Dr. Prahlada Rama Rao Pro Chancellor S-VYASA, Director, Centre for Energy Research Former Distinguished Scientist & CC R&D DRDO Former Vice Chancellor, DIAT(DU), Pune. DRDO, Min of Defence Adjunct Faculty, Dept. of Management IISc and NIAS, Bengaluru. Member, IISc Court	**Member**	
Prof. S. K. Srivastav Vice Chancellor North Eastern Hill University Shillong – 793 022	**Member**	
Prof. Varadraj B. Bapat Faculty in Accounting and Finance SIM School of Management Indian Institute of Technology Bombay Powai, Mumbai – 400 076	**Member**	
Commissioner & Secretary to the Govt. of Assam	**Member**	**Nominee from Govt. of Assam**

Higher Education (Technical) Department
Dispur, Guwahati – 781 006

Shri Neel Prakash Chhetri Proprietor, SIBIN Group Gangtok, Sikkim-737 101	**Member**	**Nominee from North Eastern Region**
Prof. Bijoy Kr. Upadhayaya (from 08.08.2024) Principal, Tripura Institute of Technology	**Member**	
Prof. Chandan Mukherjee Department of Chemistry IIT Guwahati	**Member**	**Nominees of the Senate**
Prof. M. G. P. Prasad Dept of Mathematics IIT Guwahati	**Member**	
Mr. K. K. Tiwari (from 21.02.2025) Registrar, IIT Guwahati	**Secretary**	
Prof. Diganta Goswami (from 07.10.2024 to 20.02.2025) Registrar (I/C), IIT Guwahati	**Secretary**	
Prof. G. Krishnamoorthy (upto 07.10.2024) Registrar (I/C), IIT Guwahati	**Secretary**	

S E N A T E

Director	**Chairman (Ex-Officio)**
Deputy Director	**Member (Ex-Officio)**
All Professors of the Institute	**Member**
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 Sciences, Engineering and humanities	**Board Nominee**
Heads of the Academic Divisions (Dept., School, Centre)	**Member**
Librarian of the Institute	**Member**
Chairman, Hostel Affairs Board	**Member**
Workshop Superintendent	**Member**
Registrar	**Secretary**

FINANCE COMMITTEE

Dr. Rajiv I. Modi Chairman & Managing Director Cadila Pharmaceuticals Limited Cadila Corporation Campus Sarkhej-Dhokla Road, Bhat Ahmedabad – 382210 Gujarat	**Chairman** **(Ex-Officio)**
Prof. Devendra Jalihal Director, IIT Guwahati Guwahati-781039	**Member** (from 15.05.2024)
Prof. Rajeev Ahuja Officiating Director, IIT Guwahati Guwahati-781039	**Member** (upto 14.05.2024)
Director (IITs) Dept. of Higher Education, Ministry of Education Shastri Bhawan, New Delhi-110 115	**Nominee of the Central Govt.** **Member**
Director (FINANCE) Integrated Finance Division Dept. of Higher Education, Ministry of Education Shastri Bhawan, New Delhi-110 115	**Member**
Prof. Gautam Barua Former Director, IIT Guwahati	**Member**
Dr. Bhupati Kumar Das Former Managing Director, Numaligarh Refinery Limited	**Member** (from 23.12.2024)
Dr. Biren Das Former Registrar, Tezpur University	**Member**
Registrar IIT Guwahati Guwahati-781039	**Secretary**

BUILDING & WORKS COMMITTEE

Director IIT Guwahati	**Chairman**
Deputy Director IIT Guwahati	**Member**
Chief Engineer PWD (Building), Assam Member	**Member**
Er. Jayanta Prasad Choudhury Retd. CGM, APGCL	**Member**
Er. Tongbram Jagat Singh	**Member**
Dean, Infrastructure, Planning and Management IIT Guwahati Member	**Member**
Associate Deans (IPM) IIT Guwahati Special Invitee	**Special Invitee**
Registrar IIT Guwahati	**Member Secretary**

INTRODUCTION

The Institute takes pride in the achievements of its students and gladly announces that almost all the graduated 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, students 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 2024-25.

ACADEMIC ACTIVITIES

The Institute has 11 Academic Departments, 10 Inter-disciplinary Academic Centres, 5 Schools and 5 Extramural Centres. They 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)
Physics (PH)

Academic Centres

Centre for Disaster Management and Research
Centre for Drone Technology
Centre for the Environment
Centre for Indian Knowledge Systems
Centre for Intelligent Cyber Physical Systems
Centre for Linguistic Science and Technology
Centre for Nanotechnology
Centre for Sustainable Polymers
Centre for Sustainable Water Research
Manekshaw Centre of Excellence for National Security Studies and Research

INTRODUCTION

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Academic Centres

Centre for Disaster Management and Research
Centre for Drone Technology
Centre for the Environment
Centre for Indian Knowledge Systems
Centre for Intelligent Cyber Physical Systems
Centre for Linguistic Science and Technology
Centre for Nanotechnology
Centre for Sustainable Polymers
Centre for Sustainable Water Research
Manekshaw Centre of Excellence for National Security Studies and Research

Schools

School of Agro and Rural Technology
School of Business
Mehta Family School of Data Science and Artificial Intelligence
School of Energy Science and Engineering
School of Health Science & Technology

Extramural Centres

Computer and Communication Centre
Central Instruments facility
Centre for Educational Technology
Centre for Career Development
Lakshminath Bezbaroa Central Library

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

- Bachelor of Technology (BTech) Programmes in CSE, ECE, ME, CE, Biotechnology, CLE, EEE, EP, CST, MC
- Bachelor of Design (BDes) programme in Design (DD)
- Master of Technology (MTech) programmes in CSE, EEE, ME, CE, Biotechnology, Bioengineering, Chemical Engineering, Rural Technology, Robotics and Artificial Intelligence, Data Science, Food Science and Technology, Biomedical Science and Engineering
- Master of Design (MDes) programme in Design
- Master of Science by Research [MS(R)] programme in Energy Science and Engineering, Disaster Management and Risk Reduction, Polymer Science and Technology
- Master of Science (MSc) programmes in Physics, Chemistry, Mathematics and Computing
- Master of Arts (MA) programme in Development Studies, Liberal Arts
- Doctor of Philosophy (PhD) programmes in CSE, EEE, ME, CE, DES, BSBE, CLE, PHY, CHM, Mathematics, Energy Science & Engineering, ENV, HSS, ENV, NANO, Rural Technology, CLST, Disaster Management & Research, Business, Health Science & Technology, DS&AI, Indian Knowledge Systems, Linguistic Science & Technology, Sustainable Polymers, ICPS, Sustainable Water Research, Drone Technology
- Dual (MTech + PhD) programme in CSE, ME
- Dual [MS (Eng.) + PhD] programme in EEE
- Master of Business Administration

The academic session 2024-2025 commenced from July 2024. 2474 students were admitted in various programmes across all the Departments/Academic

Centres/Schools during the reporting year. The department/centre/school-wise details of new admissions, excluding the preparatory students, are given in the table below:

Department/Centre/School	BTech/ BDes	MSc/ MA	MTech/ MDes	MS(R)	PhD	Dual Degree	MBA
Biosciences and Bioengineering (BSBE)	77	-	52	-	35	-	-
Chemical Engineering (CL)	87	-	50	-	34	-	-
Chemistry (CH)	59 (CST)	60	-	-	76	-	-
Drone Technology (CDT)	-	-	-	-	4		
Civil Engineering (CE)	106	-	136	-	46	-	-
Computer Science and Engineering (CS)	125	-	69	-	15	3	-
Design (DD)	57	-	64	-	13	-	-
Electronics and Communication Engineering (EC)	186	-	-	-	-	-	-
Electronics and Electrical Engineering (EEE)	-	-	-	-	-	-	-
Humanities and Social Sciences (HS)	-	100	-	-	38	7	-
Mathematics & Computing (MC)	79	61	-	-	10	-	-
Mechanical Engineering (ME)	110	-	131	-	17	-	-
Engineering Physics (EP)	62	56	-	-	42	-	-
Energy Science and Engineering (EN)	18	-	-	11	15	-	-
Environment (EV)	-	-	-	-	8	-	-
Nanotechnology (NT)	-	-	-	-	7	-	-
Agro and Rural Technology (RT)	-	-	8	-	10	-	-
Linguistic Science and Technology (LST)	-	-	-	-	4	-	-
Data Science (DS)	46	-	22	-	13	-	-

Department/Centre/School	BTech/ BDes	MSc/ MA	MTech/ MDes	MS(R)	PhD	Dual Degree	MBA
Food Science and Technology (FST)	-	-	7	-	-	-	-
E-Mobility (EM)	-	-	-	-	-	-	-
Intelligent Cyber Physical Systems (ICPS)	-	-	32	-	8	-	-
Disaster Management and Research (CDMR)	-	-	-	3	3	-	-
Indian Knowledge System (IKS)	-	-	-	-	7	-	-
Health Science and Technology (HST)	-	-	40	-	10	-	-
Bioengineering (BE)	-	-	-	-	-	-	-
Sustainable Polymer (SP)	-	-	-	2	3	-	-
Sustainable Water Research (SWR)	-	-	-	-	6	-	-
School of Business (SB)	-	-	-	-	9	-	28
Total	1012	227	711	16	467	13	28

- **Preparatory: 8**

- B. Tech. in Electronics and Electrical Engineering: 186

Twenty Seventh Convocation

In the Twenty Seventh Convocation , a total number of 2093 students received their BTech, BDes, MA, MSc, MTech, MDes and PhD degrees as given below:

MS(R)	**18**
Energy Science & Engineering	11
E-Mobility	1
Sustainable Polymers	3

Course	2024-25
BTech and BDes	1005
MTech and MDes	556
MSc	172
MA	51
MS(R)	18
PhD	270
MBA	21
Total	**2093**

Programme	Nos.
BTech/BDes	1005
Biotechnology	70
Chemical Engineering	111
Chemical Science and Technology	54
Civil Engineering	98
Computer Science and Engineering	135
Design	64
Electronics and Communication Engineering	117
Electronics and Electrical Engineering	66
Engineering Physics	65
Data Science & Artificial Intelligence	22
Mathematics and Computing	91
Mechanical Engineering	112
Total	**1005**

MSc	172
Chemistry	56
Mathematics and Computing	91
Physics	56
Total	**172**
MA	51
Development Studies	51
Total	**51**

MoE-NIRF INDIA RANKINGS

IIT Guwahati has retained the 7th rank among the best engineering institutions of the country in the 'India Rankings 2024' and achieved rank of 9th in the Overall category this year (2024). In the Research Institution category IIT Guwahati achieved the 10th rank.

PhD**	**270**
Biotechnology	33
Chemical Engineering	24
Chemistry	38
Civil Engineering	23
Computer Science and Engineering	17+2^
Design	9
Electronics and Communication Engineering	19+3^
Humanities & Social Sciences	13
Physics	16
Mathematics and Computing	15
Mechanical Engineering	26
School of Energy Science & Engineering	12
Centre for the Environment	5
Centre for Nanotechnology	4
Centre for Linguistic Science & Technology	1
Agro and Rural Technology	10
Total	**270**
Master in Business Administration (MBA)	**21**

^ Dual Master + Phd

QS RANKING

In the recently announced QS Ranking 2026 IIT Guwahati has secured 42nd rank globally in the 'Research Citations per Faculty' category. The Institute has gained rank =334 in World University Ranking globally. This marks an improvement of 20 places by the IIT Guwahati, which was ranked 364 in the 2024 edition of the QS World University rankings.

TIMES HIGHER EDUCATION "THE" IMPACT GLOBAL RANKING 2024

=87

SDG 9 Industry, Innovation and Infrastructure

Top 101-200 Globally

SDG 6 Clean Water and Sanitation

SDG 7 Affordable & Clean Energy

Top 201-300 Globally

SDG 4 Quaity Education

Top 401-600 Globally

SDG 2 Zero Hunger

RESEARCH AND DEVELOPMENT

The main functions of the office include administrative and accounts support for fully/partially sponsored and industry funded projects and consultancy, short term courses and other programs for and from industry, projects and activities related to Entrepreneurship, Start-up company, etc., projects/programs with Honorarium/Chair-Professorship, MoU/MoA with industries and funding agencies, technology transfer, Intellectual Property Rights (IPR) cell, Institute affairs related to IIT Guwahati Research Park and other companies of the Institute and IIT Guwahati Technology Incubation Centre (TIC) and other societies of the Institute.

Transfer of Technology:
During the period under consideration, total 05 numbers of technology transfer has been registered.

Sl. No.	Department	Name of Technology	Principal Inventor
01	Centre for Sustainable Polymers	1. A chitosan based de-oiled green algae extract additivated edible packaging formulation 2. Process for preparing nanochitosan aided starch and guar gum biocomposites based edible packaging material	Prof. Vimal Katiyar
02	Chemical Engg.	Poct Device to detect Cervical Cancer Specific Biomarker	Prof. Dipankar Bandyopadhyay
03	Chemical Engg.	Process for Preparation of Activated Carbon by using waste Tea Leaves	Prof. M. K. Purkait
04	Chemical Engg.	Carbohydrates (such as cellulose, glucose, and fructose) conversion to specialty chemicals (such as 5-hydroxymethyalfurfural HMF, furfural, xylose, levulinic acid and its derivatives, formic acid, lactic acid and 2,5-furandicarboxilic acid	Prof. Nageswara Rao Peela
05	BSBE	Production of C-phycocyanin from cyanobacteria	Prof. Debasis Das

MAJOR R&D PROJECTS

Sl. No.	Title	PI Name	Department	Funding Agency	Amount (INR)
1	Dedicated RF devices based on advanced physical principles and metamaterials for enhanced MRI performance	Debabrata Sikdar	Electronics & Electrical Engineering	DST	1,13,89,487
2	Establishment of Trees Outside Forests (TOF)-based Enterprise Incubation Centres (TBEICs) in State of Assam	Siddhartha Singha	School of Agro and Rural Technology	USAID	1,04,20,000
3	Interlayer exchange coupling based non-volatile, low-complexity and scalable PUF hardware	Tanmay Dutta	Centre for Nanotechnology	Ministry of Education	90,00,000
4	Development of Flexible Ultrasonic Piezo Sensors For	Budhaditya Hazra	Civil Engineering	Ministry of Education	74,04,000

	Structural Health Monitoring- Achieving Goal Towards Smart Infrastructure				
5	Development of clinical grade off-the-shelf human induced pluripotent stem cell (hiPSC) derived granulocytes for multidrug resistant microbial sepsis	Rajkumar Parshottambhai Thummer	Biosciences & Bioengineering	ICMR	62,39,313
6	Proposal for Development of Proximity Sensor (FMCW Radar + Antenna) for 30 MM Naval Fuze	Mahima Arrawatia	Electronics & Electrical Engineering	HBL	60,00,000
7	Performance Evaluation of PMGSY Roads Constructed Using New Technology Full Depth Reclamation (FDR) with Cement and Additive	Anjan Kumar Siddagangaiah	Civil Engineering	NRRDA	53,46,000
8	Assessment of Bioavailability of Microplastics in Soils and their Remediation through Biochar Prepared from Locally Available Agro-horti Refuse	Sudip Mitra	School of Agro and Rural Technology	SERB	48,12,000
9	Enhancing Construction Safety, Sustainability, and Project Performance Using Cutting-Edge Technologies	Santu Kar	Civil Engineering	NBCC (India) Limited	40,18,272
10	Transforming Energy Efficiency in Industries: Comprehensive Analysis and Innovative Solutions	R Anandalakshmi	School of Energy Sciences and Engineering	IIT Madras	30,00,000
11	Establishment of 'North Eastern Science and	Vimal Katiyar	Chemical Engineering	DoNER Ministry	9.98 Cr

	Technology Cluster for promoting Research, Innovation and Skill Development (NE-S & T Cluster)				

Indian Patent (Granted):

Sl.No.	Application Number	PatentTitle	Application Date
1	202531002175	ENERGY EFFICIENT WATER DISTILLATION UNIT USING PIEZOELECTRIC AND PELTIER TECHNOLOGIES WITH UV-C INTEGRATED STERILITY AND VOLATILE ORGANIC CARBON REMOVAL CAPABILITIES	09-01-2025
2	202431070318	SYSTEM AND METHOD FOR REDUCING INDUCTOR CURRENT RIPPLE IN COUPLED INDUCTOR SINGLE-INPUT DUAL-OUTPUT DC-DC CONVERTERS.	17-09-2024
3	202431045821	A PROCESS FOR IPTG-FREE EXPRESSION OF RECOMBINANT HUMAN INSULIN IN PSEUDOMONAS FLUORESCENS	13-06-2024
4	202431042984	Power Connector Assembly, Automation System and Network	03-06-2024
5	202431035347	A SYSTEM FOR IMPEDANCE MEASUREMENT OF LITHIUM-ION CELLS	03-05-2024
6	202431030348	A CONFORMAL ULTRA-THIN BROADBAND BANDPASS FILTER SYSTEM FOR BEYOND 5G RADIO STRIPE NETWORKS	15-04-2024
7	202431029831	A SELF-ASSEMBLED SEMICONDUCTING ORGANIC COMPOUND AND A METHOD OF PREPARATION THEREOF	12-04-2024
8	202431027351	METHOD FOR SYNTHESIZING MOIRÉ SUPERLATTICES FROM CRYSTALS	02-04-2024

Indian Patent (Published)

Sl.No.	Application No.	Patent Title	Application Date
1	202541027037	Deep Learning Model for Classification of Organic and Non-organic Images	24-03-2025
2	202531026852	NOVEL HYDROXYQUINOLINE-DERIVED NAPTHALIMIDE DERIVATIVE FOR ALZHEIMER'S DISEASE DETECTION AND THERAPY	24-03-2025
3	202541018993	SMART AI-ENABLED CHILD MONITORING SYSTEM USING IOT	04-03-2025
4	202531018978	Autonomous Hybrid Device for Removing Marine Biofouling	04-03-2025

5	202531018328	PHOTOLUMINESCENT IRON NANOPARTICLES AND THEIR GREEN SYNTHESIS FOR HEAVY METAL ION SENSING AND DYE DEGRADATION	02-03-2025
6	202531017644	INTEGRATED SYSTEM WITH PHOTOCATALYTIC REACTOR FOR CONTINUOUS TREATMENT OF WASTEWATER	28-02-2025
7	202531014276	AN ONSITE DETECTION OF ANTIBIOTICS BY CONGENERS	19-02-2025
8	202531013632	A THREE-PHASE PERMANENT MAGNET SYNCHRONOUS MOTOR (PMSM) SYSTEM	18-02-2025
9	202531012119	Integrated hybrid device for optimized thermal control in energy storage system	13-02-2025
10	202531009770	MULTIFUNCTIONAL PHOTOACTIVABLE FLUORESCENT PROBE IN ALZHEIMER'S DISEASE THERANOSTICS	06-02-2025
11	202531007470	A STIRRED TANK PHOTO-BIOREACTOR	29-01-2025
12	202531003436	Platinum Embedded Conducting Polyaniline/Polyvinyl Alcohol Hydrogel for Enhanced Glucose Biomolecule Detection	15-01-2025
13	202531002175	ENERGY EFFICIENT WATER DISTILLATION UNIT USING PIEZOELECTRIC AND PELTIER TECHNOLOGIES WITH UV-C INTEGRATED STERILITY AND VOLATILE ORGANIC CARBON REMOVAL CAPABILITIES	09-01-2025
14	202531001227	Retrofit device for automating gear shifts using magneto rheological fluid	06-01-2025
15	202531000806	A WATER QUALITY MONITORING DEVICE AND A METHOD THEREOF	03-01-2025
16	202431103915	PHOTOCATALYTIC REACTOR FOR EFFICIENT REMOVAL OF PHARMACEUTICAL CONTAMINATION FROM WATER	27-12-2024
17	202431100100	METHOD AND SYSTEM FOR PRODUCTION OF N-ALKYLAMIDES FROM SPILANTHES SPECIES	17-12-2024
18	202431098003	PANI-PVA conductive hydrogel based chemiresistive gas sensor	11-12-2024
19	202431095839	Development of a Flexible pH Sensor Using ZnO and Ti3C2Tx MXene for Real-Time Plant Health Monitoring in Precision Agriculture.	04-12-2024
20	202431095718	Advanced Nanostructured Photoelectrodes and Membraneless Microfluidic Electrolyzer thereof suitable for Efficient H2 Production	04-12-2024
21	202431086616	BIOINSPIRED ISOTROPIC MULTI-LATTICES FOR BONE IMPLANTS	11-11-2024
22	202431084471	A TWO-TERMINAL DEVICE FOR SENSING A BIOMARKER TO DETECT A DISEASE	05-11-2024
23	202431080913	A FLEXIBLE HOODED WARM AND COOLING JACKET WITH CONVERTIBLE SLEEPING BAG	24-10-2024
24	202431080789	Enhanced Biosensing Capabilities of Graphitic Carbon Nitride-Based Organic Field Effect Transistors for Lipase Detection	23-10-2024
25	202431080617	A HYBRID ORGANIC ELECTROCHEMICAL TRANSISTOR (HYBRID OECT) BASED BIOSENSOR	23-10-2024

26	202431076260	High-Efficiency H2Production in a Microfluidic Electrolyzer with Pd Micromesh for Ethanol Oxidation	08-10-2024
27	202431074410	METHOD AND APPARATUS FOR ANALYZING PARTIAL DIS-CHARGES IN LIQUID INSULATION AND SOLID INSULATION	01-10-2024
28	202431072950	A multipurpose UV-C radiation, temperature and humidity controlled gadget for item sterilization, drying or storage of food	26-09-2024
29	202491070318	SYSTEM AND METHOD FOR REDUCING INDUCTOR CURRENT RIPPLE IN COUPLED INDUCTOR SINGLE-INPUT DUAL-OUTPUT DC-DC CONVERTERS.	17-09-2024
30	202431068196	MODULAR AND PREFABRICATED DWELLING UNIT	10-09-2024
31	202441066943	A SYSTEM FACILITATING UNDERWATER INSPECTION, AND METHOD THEREOF	04-09-2024
32	202431065241	AN ULTRA-BROADBAND ACTIVELY TUNABLE TERAHERTZ MODULATOR BASED ON MULTI-STACKED METAMATERIAL AND A METHOD OF PREPARATION	29-08-2024
33	202431047152	METHOD OF PRODUCING RECOMBINANT HUMAN XANTHINE OXIDASE USING PICHIA PASTORIS FOR BIOREMEDIATION OF AZO DYES	19-06-2024
34	202431045821	A PROCESS FOR IPTG-FREE EXPRESSION OF RECOMBINANT HUMAN INSULIN IN PSEUDOMONAS FLUORESCENS	13-06-2024
35	202431044741	DEVELOPMENT OF MULTI-PASS MULTI-LAYER MULTI-TRACK SINGLE-SIDED FRICTION STIR WELDING PROCESS FOR JOINING OF THICK-SECTION MATERIAL.	10-06-2024
36	202431042984	Power Connector Assembly, Automation System and Network	03-06-2024
37	202431042106	Enhancing Triboelectric Nanogenerator Performance through Sustainable Lignin-Based Nanofibers: Fabrication, Characterization, and Application	30-05-2024
38	202431038267	Ball milled nano Hydroxyapatite (nHAp) and a process for its manufacture	15-05-2024
39	202431035347	A SYSTEM FOR IMPEDANCE MEASUREMENT OF LITHIUM-ION CELLS	03-05-2024
40	202433034553	AN APPARATUS FOR ANALYSING BREAKDOWN AND PRE-BREAKDOWN PHENOMENA IN LIQUID-DIELECTRICS	01-05-2024
41	202431034491	Graphitic carbon nitride-based high-performance Organic Field Effect Transistor	01-05-2024
42	202431033891	A METHOD FOR MANUFACTURING AN ARRAY OF HIGH-ASPECT-RATIO POLYMERIC MICRONEEDLES.	29-04-2024
43	202431030348	A CONFORMAL ULTRA-THIN BROADBAND BANDPASS FILTER SYSTEM FOR BEYOND 5G RADIO STRIPE NETWORKS	15-04-2024
44	202431029861	NUCLEIC ACID APTAMER BINDING TO AG85B	12-04-2024
45	202431029831	A SELF-ASSEMBLED SEMICONDUCTING ORGANIC COMPOUND AND A METHOD OF PREPARATION THEREOF	12-04-2024

46	202431027351	METHOD FOR SYNTHESIZING MOIRÉ SUPERLATTICES FROM CRYSTALS	02-04-2024
47	202431027307	NOVEL HETEROCYCLIC COUPLING REAGENTS, APPLICATIONS, AND METHODS THEREOF	02-04-2024

PATENT PUBLICATION:
During the period under report a total of 47 patents were published.

IPR POLICY:
The Institute IPR policy guidelines were created. To create awareness and encourage the faculty members about IPR, workshops are organized from time to time. The Institute also provides financial support up to Rs.2,00,000/- per annum per faculty member as reimbursement towards patent filing charges.

CONSULTANCY:
During the period under report, the Institute registered 338 Consultancy projects with a sanctioned value of ₹47.56 crores (approx.).

SPONSORED RESEARCH:
22 numbers of new Sponsored Research projects were registered with R&D office during 2024-25.

MoU and MoA:
A total number of 32 MoU and MoA-s were signed during the year under report. The following table shows the detail of the signed MoU & MoA:

Sl. No.	Date	MoU / MoA details	Initiated By (Name / Dept.)
01	02.04.2024	Stryker Global Technology Center Pvt. Ltd.	Sajan Kapil
02	06.04.2024	Bio-Med Pvt. Ltd.	Sachin Kumar
03	30.04.2024	The Swiss Confederation, represented by the Swiss Federal Dept. of Foreign Affairs	Anamika Barua
04	30.04.2024	Invitreo Biosciences Pvt. Ltd.	S Kanagaraj
05	21.05.2024	North East Centre for Technology Application & Reach (NECTAR) and IITG	S K Kakoti
06	22.05.2024	Guwahati Smart City Pvt. Ltd.	Kuntal Deka
07	24.05.2024	Federation of Indian Chambers of Commerce and Industry	S. Subbiah
08	30.05.2024	Chief Engineer (Airforce), Shillong Zone	T L Ryntathiang
09	12.06.2024	Chief Engineer, Arunachal Rural Road Development Agency (APRRDA), Itanagar	Anjan Kumar S.
10	13.06.2024	Shangun Cares INC and IITG	S Kanagaraj
11	27.06.2024	Reliance Industries Ltd. (RIL)	Akshai Kumar Alape S

12	28.06.2024	Population Council Consulting Pvt. Ltd.	Anamika Barua
13	29.06.2024	IIT Alumni Centre Bengaluru (IITACB)	S. Subbiah
14	26.06.2024	L'Oreal India Pvt. Ltd.	Tamal Banerjee
15	17.07.2024	WM Global Technology Services India Pvt. Ltd.	Keyur Sorathia
16	17.07.2024	IEEE International LLC	Sukumar Nandi
17	23.07.2024	Centre for Nano and Soft Matter Sciences	Debabrata Sikadar
18	01.08.2024	Director (Training), Directorate General Resettlement, Ministry of Defence, Govt. of India	T V Bharat
19	02.08.2024	National Hydroelectric Power Corporation Ltd. (NHPC), Faridabad	Subashisa Dutta
20	24.09.2024	Western Railway, Churchgate, Mumbai	Amit B Shelke
21	06.11.2024	AI Assisted Legal Translation of Judgements from English to Assamese	S Ranbir Singh
22	18.11.2024	MAF Technologies Pvt. Ltd.	G Trivedi
23	26.11.2024	Assam Skill Development Mission (ASDM)	G Trivedi
24	08.12.2024	Flood Early Warning and Monitoring System for Himalayan Catchments	Subashisa Dutta
25	12.12.2024	Characterization of vaccine antigents and development of recombinant protein based diagnostics	Sachin Kumar
26	06.01.2025	Satluj Jal Vidyut Nigam (SJVN)	Rajib Kr. Bhattacharjya
27	10.01.2025	Research, Development and Testing of Biomedical Devices and Implants	S Kanagaraj
28	28.01.2025	Northeast Frontier Railway	Amit B Shelke
29	28.01.2025	NTPC Ltd. Bilaspur	Amit B Shelke
30	21.03.2025	Eastern Railways	Amit B Shelke
31	22.03.2025	India Hub e-commerce Pvt. Ltd., Bhalukmari Panchayat	Siddhartha Singha
32	25.03.2025	Council for Agricultural & Rural Development (CARD)	Siddhartha Singha

1. MAJOR EVENTS ORGANIZED BY INDUSTRIAL RESEARCH AND DEVELOPMENT SECTION

• The Japan-NER Bioeconomic Technology Cooperation Symposium 2024

The Japan-NER Bioeconomic Technology Cooperation Symposium 2024 was held at IIT Guwahati from March 3–5, 2024, bringing together leading academics, researchers, and industry representatives from India and Japan to discuss collaboration in areas such as sustainable technologies, disaster management, and food supply chain innovations. A key highlight was the formal signing of an MOU between IIT Guwahati and GIFU University, committing both institutions to joint research, faculty and student exchanges, and long-term academic partnership. The event featured plenary talks from distinguished experts, an active poster session, and the Third Spring School Program, contributing to knowledge sharing and promoting cross-cultural academic and industrial cooperation.

Chief Guest/ Dignitaries/Invited Speakers: Prof. Aya Okada, Dean Graduate School International Development, Nagoya University, Prof. Akio Ebihara, Gifu University, Prof. Shiro Suzuki, Gifu University, Prof. Hiroyuki Koyama, Department of Applied Biological Sciences, Gifu University, Prof. Shin-ichi Miwa, Gifu University

- **PAC Meeting 2024: 18-19 March, 2024**
- **Semiconductor Horizons Workshop**

The Semiconductor Horizons Workshop was held at IIT Guwahati on May 1, 2024, co-organized by Tata Electronics, Government of Assam, Ministry of Education, and other partners, aiming to bolster semiconductor innovation, education, and skill development in Assam and beyond. The workshop featured expert sessions on semiconductor technologies such as compound semiconductors, CMOS, VLSI, and packaging, with key speakers including Dr. Charan Gurumurthy (CEO, Tata Semiconductor Assembly and Test), government officials, and academic leaders. A significant highlight was the signing of an MOU between IIT Guwahati and IIT Ropar alongside ESSCI to promote semiconductor skill development, innovation, and startups. The event emphasized building a local semiconductor ecosystem through industry-academia collaboration and preparing a skilled workforce to support the semiconductor mission in the North East and India at large.

Chief Guest/ Dignitaries/Invited Speakers: Prof. Tomio Yabe, Prof. Akio Ebihara, Prof. Hiroyuki Koyama, Prof. Morihisa Fujita, Prof. Santoshi Ito, Prof. Shinichi Miwa, Prof. Takumi Nakane, Prof. Yoshiyuki Hatta, B.V. Manjula Rao, T. Rao, Yusaku Saeki, Tsuyoshi Takayama, Issei Matsuo, Haruka Maruyama, Len Ito, Kosuke Watanabe

- **Workshop on "Writing R&D Grant Proposals"**

The event was a full-day workshop on "Writing R&D Grant Proposals" scheduled for April 25, 2025, at IIT Guwahati, led by distinguished experts Dr. Rajiv K Tayal and Dr. D R Prasada Raju. It aimed to help young faculty develop skills and strategies to craft effective research grant proposals, with participants receiving direct mentorship and insights from seasoned professionals in research funding. The workshop was conducted in-person for a limited number of attendees, and interested faculty were encouraged to register promptly via the provided link

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Chief Guest/ Dignitaries/Invited Speakers: Dr. Rajiv K Tayal-former Executive Director of the Indo-US Science & Technology Forum and Secretary of the Science and Engineering Research Board (SERB), and currently associated with ANRF , Dr. D R Prasada Raju - former Scientist, Dept of Science & Technology R&D Adviser and Visiting Professor of IITs- Madras, Tirupati & Hyderabad

EVENTS ORGANIZED UNDER IIT GUWAHATI TECHNOLOGY INNOVATION HUB (TIH) / TECHNOLOGY INNOVATION AND DEVELOPMENT FOUNDATION

Sl. No.	Name of the Event/ Activity	Overview of the Event	Chief Guest/ Dignitaries
1	Solar Installation Technician Program	The Solar Installation Technician Program, conducted over three months starting from October 2023, trained 23 professionals in solar panel installation. Participants gained hands-on experience and theoretical knowledge in photovoltaic technology, system design, installation techniques, and safety protocols. The program aimed to cultivate a skilled workforce capable of deploying solar energy solutions effectively. Upon completion, graduates received certification as solar installation technicians, ready to contribute to the adoption of renewable energy and sustainable development.	Prof. S.K. Dwivedy (Project Director), Mr. N N Dutta (CEO)
2	International Conference RCRM 2024	The International Conference RCRM 2024 served as a dynamic platform merging conference proceedings with a comprehensive review meet. Our primary aim was to spotlight the latest product developments, burgeoning startups, funding initiatives, grants, and the current status of our ongoing projects. This event provided an invaluable opportunity for stakeholders to exchange insights, foster collaborations, and chart the course for future advancements in research, innovation, and entrepreneurship within our field.	Prof. S.K. Dwivedy (Project Director)
3	Collaboration with Indian Army	IITG-TIDF has successfully developed and delivered a groundbreaking product to the Indian Army in the presence of Brigadier (A.K. Singh), Colonel (V.S Parihar), and others. : The Vehicle Alignment System for Smooth Entraining of Military Vehicles. This cutting-edge technological solution promises to revolutionize the process of entraining military vehicles onto trains and CHTs	Brigadier (A.K. Singh), Colonel (V.S Parihar)

		(Container Handling Trailers), enhancing efficiency and safety in crucial military logistics operations.	
4	Advanced Program on Entrepreneurship for Women	In collaboration with the Embassy of Israel, TIH at IIT Guwahati organized a program to empower women entrepreneurs with skills for sustainable business practices, covering green business models and eco-friendly product development.	Naor Gilon (Ambassador of Israel to India)
5	Drone/Anti-Drone Workshop for Defense Personnel	The Drone/Anti-Drone Workshop for defense personnel, hosted by TIH at IIT Guwahati, focused on the strategic applications of drone technology in defense operations. Participants received training on utilizing drones for surveillance, reconnaissance, and security missions, as well as counter-drone strategies to neutralize potential threats. The workshop demonstrated the integration of advanced drone technologies in enhancing national security, emphasizing their role in environmental protection tasks such as forest surveillance and pollution monitoring, thereby showcasing their multifaceted benefits in defense and environmental conservation.	
6	5-Day 3D Printing Workshop for Students	Students learned about sustainable manufacturing using 3D printing, focusing on biodegradable materials and waste reduction. Projects included creating eco-friendly products to solve environmental challenges.	Prof. S.K. Dwivedy (Project Director)
7	International Workshop on Dam Safety 2024	This workshop addressed the environmental impact of dams, discussing sustainable water management and minimizing ecological disruption during dam construction and maintenance.	Prof. S.K. Dwivedy (Project Director), Mr. N N Dutta (CEO)
8	Outreach Program with YouthNET Nagaland	TIH recently collaborated with YouthNET Nagaland for an outreach program focused on empowering young minds. The event aimed to promote awareness about innovation and entrepreneurship in emerging technologies. YouthNET, known for its youth-centric development programs, provided a platform for the students to interact with industry leaders and researchers at TIH. The collaboration also emphasized capacity-building and career opportunities in tech-driven fields for the youth of Nagaland.	Nuneseno Chase, Director of YouthNet

9	Aquawars 2024	An innovative competition organized by TIH, has gained immense attention for its focus on underwater robotics and technologies. The event featured student teams and researchers showcasing their biomimetic robots and underwater exploration technologies. Scheduled during September 2024, Aquawars promised to advance solutions to critical challenges in underwater exploration and security. This competition also helped fostering interdisciplinary collaborations between engineering, marine biology, and robotics, further enhancing the scope of underwater technologies at TIH.	Prof. S.K. Dwivedy (Project Director), Mr. N N Dutta (CEO)
10	Tech Explorer; Discovering Innovation at TIH	As part of its ongoing initiatives to promote technology innovation, TIH organized the Tech Explorer program, inviting students from various schools and colleges to explore cutting-edge innovations. The program aimed to inspire the next generation of technologists by offering them a hands-on experience with some of the advanced projects developed at TIH. From AI-driven devices to biomimetic robots, the students had an opportunity to learn about diverse technological advancements that align with TIH's vision of interdisciplinary innovation. Students from various Kendriya Vidyalaya's, JNV's and LFS visited TIH and spent time immersing themselves in experiencing the technologies of the future.	Prof. S.K. Dwivedy (Project Director)
11	Outreach Program at TIH with Dr. L. Minaketan Singh, Director of Manipur Science & Technology Council (MASTEC)	TIH hosted a prestigious outreach session with Dr. L. Minaketan Singh, Director of MASTEC. The session focused on fostering collaborations between TIH and MASTEC to drive scientific innovation in the northeastern region of India. Dr. Singh highlighted the importance of science and technology in regional development and how partnerships with institutions like TIH can bridge gaps in research and innovation. The program further explored avenues for joint research projects, capacity-building workshops, and technology transfers.	Dr. L. Minaketan Singh, Director of Manipur Science & Technology Council (MASTEC)

12	Product Display at Research Conclave IIT Guwahati	TIH showcased several of its cutting-edge innovations during the Research Conclave at IIT Guwahati, a prestigious platform for interdisciplinary research. Products such as underwater biomimetic robots, AI-driven environmental monitoring systems, and sensor-based technologies garnered significant attention from the academic and research community. The conclave provided TIH with an opportunity to demonstrate its commitment to leveraging technology for solving real-world challenges, and it also helped establish new collaborative networks with researchers from across India.	
13	PHN Robotics CoE Launch	TIH has partnered with PHN Technology Pvt. Ltd. to establish a Center of Excellence (CoE) focused on Robotics, Artificial Intelligence (AI), and Machine Learning (ML). This strategic collaboration aims to foster innovation and research in cutting-edge technologies, providing a platform for advancements in these critical fields. The CoE will serve as a hub for developing state-of-the-art solutions and training talent, furthering TIH's mission to drive technological progress and contribute to the nation's innovation ecosystem.	Pradip Narayankar, CEO of PHN Technology
14	Advanced Entrepreneurship and Skill Development Program (E-SDP) on Entrepreneurship Promotion in the Areas of AI and Machine Learning Advancements in the Energy Sector	The Advanced Entrepreneurship and Skill Development Program (E-SDP) on "Entrepreneurship Promotion in the Areas of AI and Machine Learning Advancements in the Energy Sector" was a transformative initiative conducted by the Ministry of Micro, Small, and Medium Enterprises (MSME) in collaboration with the Technology Innovation Hub (TIH) at IIT Guwahati. This program aimed to empower budding entrepreneurs by focusing on the integration of AI and Machine Learning technologies within the energy sector. Through a blend of expert-led sessions, hands-on training, and networking opportunities, the event fostered innovative thinking and provided participants with the tools to develop impactful solutions, emphasizing the role of emerging technologies in shaping sustainable energy futures.	

15	International Workshop on Dam Safety 2025 (held at KIIT Odisha)	This workshop addressed the environmental impact of dams, discussing sustainable water management and minimizing ecological disruption during dam construction and maintenance.	Prof. S.K. Dwivedy (Project Director), Mr. N N Dutta (CEO)
16	Inspiring Young Minds: Navodaya Vidyalaya Students Visit TIH	As part of the Regional Children's Science Congress, a group of around 100 students from Navodaya Vidyalaya Samiti, Shillong, visited the Technology Innovation Hub (TIH) at IIT Guwahati. The visit provided an opportunity for the students to explore cutting-edge research in underwater exploration and robotics. They were given live demonstrations of various laboratory facilities and ongoing technological developments at TIH, sparking curiosity and interest in scientific innovation.	
17	Strategic Visit: Exploring Underwater Wireless Communication at TIH	TIH, IIT Guwahati, had the privilege of hosting a visit by a Retired Admiral of the Indian Navy and a Group Captain, who are currently working with L&T. Their visit focused on exploring advancements in underwater wireless communication technologies and potential training programs in this domain. The discussions highlighted TIH's expertise in underwater technologies and its commitment to fostering innovation in maritime and defense applications. This visit marks a step toward potential collaborations in developing cutting-edge solutions for underwater communication and training.	
18	Live Demonstration of LPKF ProtoLaser U4 at TIH	TIH, IIT Guwahati, hosted a live demonstration of the newly installed LPKF ProtoLaser U4, a state-of-the-art UV laser system for high-precision PCB prototyping, in Room No. 504 at 10:30 A.M. today. The system enables rapid and accurate circuit board fabrication, significantly enhancing in-house prototyping capabilities. This advanced addition strengthens TIH's commitment to fostering innovation in electronics and hardware development.	

19	Aquatech Innovation Hackathon: A Collaborative Initiative by TIH & TIC-IITG	TIH, IIT Guwahati, in collaboration with TIC-IITG, successfully organized the Aquatech Innovation Hackathon, a dynamic platform aimed at fostering technological advancements in water-based solutions. The hackathon brought together young innovators, researchers, and startups to develop cutting-edge technologies addressing challenges in underwater exploration, aquaculture, and sustainable water management. This initiative reflects TIH's commitment to nurturing innovation and entrepreneurship in the blue economy and advancing India's water-tech ecosystem.	Mr. N. N. Dutta (CEO, TIH)
20	Collaboration with Indian Army for EV Training & Technology Exchange	TIH, IIT Guwahati, has initiated a strategic collaboration with the Indian Army to facilitate training programs and technology exchange in the field of Electric Vehicles (EVs). This partnership aims to enhance technical expertise, deployment strategies, and innovation in EV technology for defense applications, reinforcing TIH's commitment to advancing sustainable and future-ready mobility solutions.	
21	Collaboration with Rudram Dynamics	The Technology Innovation and Development Foundation (TIH) at IIT Guwahati recently held an outreach and collaborative meeting with Rudram Dynamics, a pioneering company specializing in indigenous propulsion and aerospace systems. The discussion focused on exploring potential synergies in the areas of advanced materials, propulsion technologies, and deep-tech innovation. With a shared vision for strengthening India's self-reliance in defense and aerospace, the meeting opened avenues for joint research, technology development, and skill-building initiatives. Both TIH and Rudram Dynamics expressed strong interest in leveraging each other's strengths to foster innovation, support startups, and contribute to the nation's strategic technological capabilities.	Konark Rai, Founder (Rudram Dynamics)

22	Collaboration with Stramba Italy	TIH, IIT Guwahati recently engaged in a strategic outreach meeting with Mr. Vishal Phanse—former CEO of the Piramal Foundation—who now leads Stramba Italy, an innovation-driven R&D enterprise based in Riccione, Italy, dedicated to scientific research and sustainable technology development. Stramba's expertise lies in designing and prototyping advanced systems—such as their STR69 15-meter prototype—leveraging a blend of engineering, regenerative design, and sustainability principles. During the meeting, discussions centered on combining TIH's deep-tech research capabilities with Stramba's sustainable solutions. Key areas of potential collaboration included co-developing eco-conscious prototypes, circular-economy platforms, and scalable clean-tech innovations. This partnership aims to bridge technical excellence with environmental stewardship, setting the stage for impactful joint initiatives in green innovation.	Mr. Vishal Phanse, former CEO of the Piramal Foundation
23	Startup Talk	TIH, IIT Guwahati recently welcomed a visit from a distinguished angel investor, Ms. Purva K. with a strong interest in impact-driven innovations and sustainable development. During her visit, she engaged with faculty members and researchers working on grassroots technologies and expressed a keen interest in contributing to projects with social and environmental relevance. Notably, she will be collaborating on the Jal Jeevan Mission project in Assam, which focuses on ensuring safe and sustainable drinking water supply to rural communities. With the support of IIT Guwahati faculty and TIH's technology ecosystem, this partnership is expected to catalyze innovative solutions in water management, monitoring, and community empowerment—marking a significant step toward translating investment into measurable societal impact.	Ms. Purva K.

24	Drone Workshop for Defence Personnels	The workshop demonstrated the integration of advanced drone technologies in enhancing national security, emphasizing their role in environmental protection tasks such as forest surveillance and pollution monitoring, thereby showcasing their multifaceted benefits in defense and environmental conservation.	
25	Collaboration Axom Sahitya Sabha for Science and Education Fair	The exhibition is envisioned as a vibrant platform where students, researchers, innovators, and the general public can witness and engage with cutting-edge scientific developments. It aims to spark curiosity, inspire innovation, and build bridges between academia, industry, and society.	
26	Educational Tour from Assam Skill University	Students from the Electrical Department and Digital Manufacturing Technology Department explored our advanced laboratories, interacted with researchers, and gained first-hand exposure to innovations in underwater exploration, drone and anti-drone systems, additive manufacturing, AI applications, and other frontier technologies.	
27	Advanced Training Program on FPV Drones for Defence Forces	Currently ongoing	
28	3-Month Certificate Program on Drone Technology for Defence Forces with (CET) and (CICPS)	Currently ongoing	Prof. Devendra Jalihal, Director IITG

ALUMNI AND EXTERNAL RELATIONS (AER)

MEMORANDUM OF UNDERSTANDING (MOUs) & STRATEGIC PARTNERSHIP

The AER office currently handles MoUs for Academic and Research Collaborations with International academic institutions and organizations. During the period, 17+ Memoranda of Understanding (MoUs) were signed by IIT Guwahati, reflecting the institute's ongoing commitment to strengthening national and international collaborations in research, education, innovation, and societal impact.

Key Highlights:

- **Wheels Global Foundation (WGF):** Collaboration for sustainable development, student and faculty wellness, and donation drives in the U.S.
- **Danfoss Industries Pvt. Ltd.:** Industry-academia partnership for technology development.
- MoU between SDU and DTU of Denmark focussed on energy and power electronics
- **MoC between Netherlands and Indian Universities:** Focused on semiconductor research in coordination with **MeitY**.
- **Taipei Economic and Cultural Centre:** Agreement to establish a **Taiwan Education Centre** at IITG.
- **National Institute for Materials Science (NIMS), Japan:** Establishment of a **Centre of Excellence (CoE)**.
- Partnerships with leading global institutions:
    - **Universidad Politécnica de Madrid, Spain**
    - **Kyoto Institute of Technology, Japan**
    - **OWL University of Applied Sciences and Arts, Germany**
    - **GIFU University, Japan** *(Renewal)*
    - **Sherubtse College, Royal University of Bhutan**
    - **IHE Delft Institute for Water Education, Netherlands**
    - **Joint Institute for Nuclear Research, Dubna**
    - **UFA State Petroleum Technological University, Russia**
- **Homi Bhabha National Institute** and **CSIR-CDRI Lucknow** *(Renewal)*: For scientific research and academic collaboration.
- **National Institute of Technology (NIT) Agartala:** Strengthening inter-institutional academic ties within India.

  These partnerships collectively enhance IIT Guwahati's global visibility, research output, student and faculty mobility, and societal impact through joint initiatives.

ONGOING JOINT DEGREE PROGRAMME

IIT Guwahati, in collaboration with multiple international universities, is offering **Joint Master's, Joint PhD, and Dual Award Programs**. These programs are designed to prepare students with a **balanced and interdisciplinary expertise**, equipping them with a deep understanding of various aspects of science and engineering.

These joint degree programs provide exposure to diverse academic environments, foster global learning, and enhance research capabilities through international collaboration.

Some of the ongoing joint master's programs include:

1. **Joint M.Tech Program** in *Food Science and Technology* with **Gifu University, Japan**

2. **Joint PhD Program** with **Gifu University, Japan** in *Food Science and Technology* and *Integrated Mechanical Engineering*
3. **Joint PhD Program** in *Bioinformatics* with **Heidelberg University, Germany** (Department of Biosciences and Bioengineering – BSBE)
4. **Collaborative PhD Program** with **National Institute for Materials Science (NIMS), Japan**
5. **PhD under Dual Award Program** with **Western Sydney University, Australia**
6. **Joint PhD Program** under collaboration with **Dalhousie University, Canada**

These programs not only offer high-quality academic training but also foster meaningful international research collaborations and cultural exchange.

VISIT OF JAPANESE PARLIAMENTARY & INDUSTRY DELEGATION

May 4, 2025

A 45-member delegation led by Mr. Fukushiro Nukaga, Speaker of the House of Representatives, Japan, visited IIT Guwahati to strengthen Indo-Japan collaboration in technology, education, and sustainable development. The delegation toured the Centre for Nanotechnology and the Technology Incubation Centre, engaging with innovations in AI and healthcare. Discussions included potential partnerships for Assam's upcoming Tata Semiconductor Assembly and Test Facility, reinforcing shared democratic values and regional development goals.

THAI DELEGATION VISIT

SEPTEMBER 24, 2024

IIT GUWAHATI HOSTED A 32-MEMBER THAI DELEGATION LED BY MS. SASIRIT TANGULRAT, DIRECTOR GENERAL OF THE DEPARTMENT OF SOUTH ASIAN, MIDDLE EAST, AND AFRICAN AFFAIRS. THE DELEGATION INCLUDED DISTINGUISHED PROFESSORS AND SCHOLARS FROM OVER 13 LEADING UNIVERSITIES AND INSTITUTES IN THAILAND. THE VISIT AIMED TO FOSTER ACADEMIC COLLABORATION, RESEARCH PARTNERSHIPS, AND CULTURAL EXCHANGE BETWEEN INDIA AND THAILAND.

Visit of the British Deputy High Commission, Kolkata

May 13, 2025

A delegation from the British Deputy High Commission, Kolkata, visited IIT Guwahati on May 13, 2025. The team was led by **Ms. Brahmadatha**, Senior Technology and Innovation Adviser, and **Mr. Habib Raihan**, Senior Trade Advisor. The visit focused on exploring avenues for collaboration in technology, innovation, and academic partnerships between the UK and India

VISIT OF JAPANESE DELEGATION

January 2025

A Japanese delegation led by **Mr. Hideaki Kitajima**, Director General of the Industrial Department of Hamamatsu City, visited IIT Guwahati in January 2025. The visit focused on exploring collaboration opportunities in industrial innovation, technology exchange, and fostering academic-industry partnerships between Hamamatsu and IIT Guwahati.

Some Other Notable Visits

IIT Guwahati welcomed several high-level international delegations in the past year, fostering global academic and research collaborations:

- **U.S. Delegation** led by **Ms. Katherine Giles-Diaz**, Consul General – Kolkata, visited on **February 26, 2025**, to discuss strengthening Indo-U.S. academic and innovation partnerships.
- **Austrian Ambassador to India**, **Ms. Katharina Wieser**, visited on **February 25, 2025**, exploring opportunities for bilateral collaboration in education and research.
- A team from the **French Embassy** visited in **February 2025**, focusing on joint academic programs and student exchange.
- **Dr. Ashok Deysarkar, a distinguished alumnus of IIT Kharagpur and the owner of PfP Industries, Texas, USA** and his team visited in **December 2024**, engaging in discussions on research funding and institutional development.
- Shri Rahul Mehta, Head of the Mehta Family Foundations and his team visited us for the Bhumi Pujan of the Mehta Schools.
- A **German Delegation** visited in **May 2024**, emphasizing cooperation in science, engineering, and higher education.

These visits reflect IIT Guwahati's growing global engagement and its commitment to fostering meaningful international partnerships.

ALUMNI MATTERS

IITGAA MUMBAI CHAPTER ALUMNI MEET

January 2025

The IIT Guwahati Alumni Association (IITGAA) Mumbai Chapter hosted a vibrant alumni meet in January 2025, graced by **Prof. Devendra Jalihal**, Director, IIT Guwahati; **Prof. Sumana Dutta**, Dean of Alumni & External Relations; and **Mr. Prakash Sansare**, President of the Mumbai Chapter. Prof. Jalihal shared key updates on the institute's initiatives and collaborations with IITGAA. The event fostered professional networking and heartfelt connections, filled with nostalgia, lively discussions, and fond memories.

HONORARY FACULTY POSITIONS AT IIT GUWAHATI

As of today, **IIT Guwahati hosts 70+ faculty members in honorary positions**, contributing significantly to the institute's academic and research ecosystem. These distinguished individuals come from leading universities and institutions across **16 countries**.

Breakdown of Honorary Positions:

- **Professor of Practice (PoP):** 8
- **Visiting Faculty (VF):** 7
- **Adjunct Faculty (AF):** 6
- **Honorary Professors (HP):** 53
- **Distinguished Professors (DP):** 6

These honorary faculty members are actively engaged across departments, centres, and schools in:

- Collaborative research
- Joint international projects with IITG faculty
- Academic lectures, courses, and teaching
- Co-guidance of PhD/M.Tech students
- Various academic enrichment activities

Their involvement enhances IIT Guwahati's global academic linkages, interdisciplinary research, and international teaching standards.

ALUMNI AWARD 2025

The **Alumni Awards 2025** were conferred during the opening ceremony of **PIWOT 2025**, celebrating exceptional contributions by IIT Guwahati alumni. **Distinguished Alumni**

Award was presented to **Prof. Prateek Mittal**, Professor at Princeton University and recipient of the **Grace Murray Hopper Award (June 2024)**. He was recognized for his pioneering work in computer science, academic leadership, and mentorship. Prof. Mittal inspired the audience with his message on embracing failure as a step toward innovation.

Young Alumni Achiever Awards were awarded to:Ayush Thakur (B.Tech Civil, 2010), CEO & Co-founder of FR8relay and Co-founder of Connect Dynamics, for his entrepreneurial excellence and leadership.

Saurabh Nangia, Founder & CEO of Mesh.ai, and serial entrepreneur (DataMonk, TargetingMantra), honored for innovation and impact in tech-driven ventures.

These awards reflect the remarkable accomplishments of IITG alumni and their growing global influence.

ALUMNI CHAPTER MEETS (2024–2025)

In a continued effort to strengthen alumni engagement, multiple **IIT Guwahati Alumni Chapter Meets** were held across India and globally over the past year. These reunions offered vibrant platforms for networking, sharing updates, and celebrating the growing achievements of the IITG community.

- **Bengaluru, Pune, and Delhi NCR Chapters** held their meets in **August 2024**, fostering strong regional alumni networks.
- The **Guwahati Chapter Meet** in **October 2024** brought together alumni on campus for nostalgic and forward-looking conversations.
- The **Mumbai Chapter Meet** took place in **January 2025**, graced by institute leadership and featuring meaningful discussions and camaraderie.
- On the global front, the **Europe, Bay Area, and Tri-States Area Chapters** hosted their reunions in **May 2025**, showcasing the global footprint of IITG alumni.
- The **first-ever BSBE Alumni Meet** in **October 2024** marked a milestone for the department, uniting graduates for the first time in a dedicated event.

These gatherings reinforced the strong bond between the institute and its alumni, while paving the way for impactful collaborations and mentorship opportunities.

PanIIT World of Technology 2025 (PIWOT)

Visions for a Promising Tomorrow | January 21, 2025

PIWOT 2025 brought together policymakers, technologists, alumni, entrepreneurs, and social innovators to explore technology's role in building a *Viksit Bharat*. The event featured panel discussions on sustainable innovation, social entrepreneurship, and healthcare technology. Over 80 innovations were showcased across dedicated pavilions for research, students, startups, and visitors.

Key Impact Areas:

- Rural development through technology
- Improved access to healthcare
- Support for student and startup innovations
- Strengthened industry-academia partnerships

Attendees included Dr. Ravi Kota (Chief Secretary, Assam), leaders from Wheels Global Foundation, IvyCap Ventures, and senior IITG alumni, along with representatives from five universities, NGOs, and industry.

SILVER JUBILEE REUNION – CLASS OF 1999

August 2–4, 2024

IIT Guwahati hosted the Silver Jubilee Reunion of its first graduating batch, the Class of 1999. Over 25 alumni from across the globe returned to campus for a special three-day celebration. The event featured interactive sessions with the Director and Deans on enhancing student training and campus infrastructure. A student Open House and participation from both current and retired faculty and staff made the reunion truly memorable.

31ST FOUNDATION DAY – SEPTEMBER 1, 2024

IIT Guwahati celebrated its 31st Foundation Day with **Lt. Gen. Rana Pratap Kalita (Retd.)**, former GOC-in-Chief, Eastern Command, as the Chief Guest. His inspiring address captivated the audience. **Shri Bhaskar Jyoti Phukan**, MD of Numaligarh Refinery Limited and Guest of Honour, highlighted the importance of sustainable energy.

EXCHANGE STUDENTS International Academic Engagement (2024 –2025)

IIT Guwahati continues to strengthen its global academic footprint through dynamic student and faculty exchange programs. During the period, the institute welcomed **49 enrolled and 121 short-term inbound students**, while **92 students** participated in outbound exchange programs.

Key initiatives included: **Hanyang University Exchange Program, Gifu University Exchange Program**
Over the year, **faculty members from more than 40 international universities** visited IIT Guwahati, contributing to academic exchange and research partnerships.

With active collaborations involving **50+ global institutions**, IIT Guwahati is part of prominent academic networks and programs such as the **Heritage Network**, **CiC with University of Tsukuba and 13 partner institutions**, **Erasmus projects**, and **DAAD-Cospie initiatives**. These partnerships enable rich opportunities for **research collaboration, global learning, and cultural exchange**, reinforcing the institute's commitment to internationalization.

FULL-TIME INTERNATIONAL STUDENTS (ACADEMIC YEAR 2024)

IIT Guwahati welcomed several international students into its full-time academic programs for the year 2024. These students enrolled across postgraduate, doctoral, and undergraduate (exchange) programs, representing countries such as **Nepal, Bhutan, Bangladesh, Japan, Spain, and Ethiopia**, and joined departments including **Design, CSE, Mathematics, BSBE, Mechanical Engineering**, and the **School of Business**.

ARCHANA KUMARI	**NEPAL**	**M.Des**	**DESIGN**
RAJAN YADAV	**NEPAL**	**M.Tech**	**CSE**
SHIPON NANDY	**BANGLADESH**	**M.Tech**	**CSE**
PARASH SHARMA	**BHUTAN**	**M.Sc**	**MATHEMATICS**
BIKASH DARJEE	**BHUTAN**	**M.Sc**	**MATHEMATICS**
NIM DORJI	**BHUTAN**	**MBA**	**SCHOOL OF BUSINESS**
NGAWANG CHOEDA	**BHUTAN**	**M.Tech**	**CICPS**
SATYENDU NANDY	**BANGLADESH**	**Ph.D**	**BSBE**
TASUKU MIYACHI	**JAPAN**	**Joint PhD**	**BSBE**
JUAN MANUEL ABELLA LASA	**SPAIN**	**B.Tech**	**MECHANICAL**
KAMIL KERALA SHIKUR	**ETHIOPIA**	**PhD**	**DESIGN**

SEMESTER EXCHANGE / RESEARCH INTERNSHIPS WITH PARTNER UNIVERSITIES (OUTBOUND):

INFRASTRUCTURE DEVELOPMENT IN THE INSTITUTE

The following are ongoing and recently completed projects in the Campus**:**
The following are ongoing projects in the Campus**:**

1. Gaurang Hostel:

The Hostel is a G+3 storied building of area 11890 sqm consisting of 250 double seater room, Office, warden room, Visitors room, Dining Hall, Kitchen, pantry, Food Court, reading room, Games Room, Activity room etc. 134 rooms of the hostel were completed and allotted to students in July 2023. The hostel was completed on 31.05.2024

2. Academic Tower –I (previously known as the BSBE) Building:
The proposed Tower is a G+5 building planned to provide 12,500 sq m of useful floor space. The building will have of 25 Research Laboratories, 6 other Laboratories including office, store, DCIF, Autoclave room, High end equipment, conference room etc. The work was allotted after tendering. After completion of initial pile load test the work was started by the contractor in February 2023. The schedule date of completion of Phase -I work is September 2026. Revised project cost stands at ₹ 81.87 Crore.

3. Core Laboratory Building:
The work was allotted after tendering with scheduled time for completion of 18 months. It is a G+2 storied building with total built up area of 3630 sq m. The building provides 2 large rooms on each floor with space for faculty offices and storage. The sanctioned value of the HEFA loan is ₹ 15.00 crores.
Internal finishing works are in progress. The building will be ready for occupancy by end July 2025.

4. Transit Accommodation (previously known as the International Students' Hostel)

Total occupancy of the hostel is 91 studio-type apartments. The hostel includes, a multipurpose hall, a media/study room, office room, warden room and electrical room among other items. This is located behind the Guest House 2 and Hospital with access from the main road of the Serpentine Lake.

The scope for the work includes construction of G+2 storied RCC building with built-up area of 3310 sq m. The transit accommodation is meant for students, PDFs and visiting faculty who need short-term accommodation. The sanctioned HEFA loan for the project is ₹ 15.00 crores. Internal finishing works are in progress. The building will be ready for occupancy by end July 2025.

WORK IN PROGRESS

5. Mehta Family school of Data Science and Artificial Intelligence and Health Science

The US based Mehta Family Foundation is generously funding for the construction of Academic Building for Data Science & Artificial Intelligence and Health Science in IITG Campus. The built-up area of the building is 9244 sq m. The Bhumi Pujan of the building was done in December 2024 and is expected to be ready by 2027.

The work has been allotted to the contractor after tendering. Initial test piles have been installed at site. After load test on the piles, the construction work will be started. The scheduled time for completion of the project is 36 months. In the scope of work the building will be completed upto G+7 with external finish. The internal finish will be done upto G+4 level only.

6. Electrical infrastructure

At present the Institute has one 33 /11 KV substation with the capacity of 17.5 MVA, comprising of 1 X 7.5 MVA and 2 X 5 MVA transformers to provide for the growing needs of power to the Academic Complex, hostels, residential quarters including other Institute Buildings. This 33KV sub station is connected from 132KV Grid substation of APDCL near to the IITG Campus. The Institute has 11 numbers of 11KV distribution sub stations in various locations in the Campus through which the power supply is distributed to the entire Campus.

Considering the power requirement for various planned new buildings mentioned before, one new 11 KV distribution substation has been considered and the civil construction works of new substation building has already been completed. The electrical equipment like transformer, HT switchgear and other accessories expected to reach the campus soon. Simultaneously up gradation of existing 33/11 KV substation in the campus are under progress.

Due to rapid growth of the Institute the power requirement. the Institute has already exceeded the sanctioned quota of 6.3 MW. To cater to the additional electrical load, about 2 MW roof top solar Power Plant has also been installed in the campus.

In addition to the above, the Institute has recently been sanctioned by APDCL an additional load of 2.14 MW.

Over and above, process has been initiated for installation of another 1 MW capacity roof top solar in the campus.

7. AC infrastructure

Due to the rapid expansion IIT Guwahati academic complex augmentation of air conditioning system become essential. Work on enhancing the installed capacity is going on. Today IIT Guwahati have two HVAC plants having a total 3000 TR capacity provide air-conditioning facility to most areas like whole academic complex, lecture hall complex auditorium, CCC, conference center, lecture hall complex, and library building etc.

In addition to this, other types of air-conditioning like VRV air conditioning system (1800 TR capacity) is an energy efficient AC system installed in buildings like NEW SAC, new guest house, Research building, Research Park, estate office building and class rooms of Core –I, II, III and IV and core laboratory.

Moreover, there are another 1200 TR capacity of allied AC systems comprising of window splits, Ductable ACs are also installed in Admin. Building, Central Workshop, D type community hall, Technology complex, GuestHouse 1 and some labs in Academic complex.

In view of the growing Academic expansion, HVAC infrastructure facility is also considered for up-gradation from time to time.
Considering future demand, we have decided in first phase to upgrade the HVAC central plant with a 600 TR centrifugal water-cooled chiller to cater to the AC load in the campus. Installation and commissioning of 600 TR water cooled chiller was completed on 31.01.2025. In addition, second phase augmentation of second HVAC plant with two of 300 TR screw air cooled chillers has been approved by the competent authority. Accordingly, tender for the work has been invited through e-tendering as per the new guidelines.

The tender has been awarded and work is in progress.

Upcoming projects

8. G+9 storied 2000-seater double occupancy Boys' Hostel

Presently there are 11 Boys' hostel with capacity of 6500. Due to shortage of rooms, 3000 students are sharing single seater accommodation in the hostels. This is likely to increase to get worse in near future.

For proper accommodation a 2000-seater hostel with double occupancy has been proposed to be constructed by availing a HEFA loan.

Architect empanelment for the project has been completed. Conceptual drawings and plinth area estimate have been received from the Architect. Total build up area of the building is 55,551 sq m. There will be 1026 twin sharing rooms, 2 dining halls, 2 kitchens, 2 common rooms, sports facilities and food court facilities in the building. Estimated project cost stands at ₹ 207.11 crores.

Tender will be floated after approval of the estimate by the competent authority of the Institute.

FACULTY AND STAFF

The regular faculty strength at the end of March 2025 was 464, with strength of Visiting/ Honorary faculty being 70+. The number of non-teaching staff at the end of March 2024 was 516.

INSTITUTE EXPENDITURE

The details of expenditure including utilization of unspent balance & Internal Resources on Capital Account during the year 2023-24 (provisional) are as follow (in crores):

Revenue expenditure : 502.33
Capital expenditure : 88.77
R&D(Revenue Expenditure): 147.52
R&D(Revenue Expenditure): 18.76
II&SI (Revenue Expenditure): 74.06
II&SI (Revenue Expenditure): 6.70
Total Expenditure : 838.14 (In Crores)

CAMPUS PLACEMENT

The placement scenario of IIT Guwahati for the year 2023-24 has been impressive. More than 448 companies/organizations 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, Educational, etc.) participated in the recruitment process. It includes a total of 12 PSUs.

The total number of registered students for campus placement in the year 2023-24 is 1654 and 1084 nos. of students already got placed so far. A total of 219 numbers of students received PPOs this year. It is worth mentioning that a total of 102 students got package of 50 LPA.

A total of 841 number of B.Tech students registered for placement in 2023-24. Among this, 622 (74%) students have been placed so far. Overall, more than 40% students have been placed in the respective core sectors.

Students' internship record has been pretty good this year. More than 115 companies registered for internship in 2023-24 and 426 nos. of students received internship offers so far. There was 100% internship offers for MBA students. Further, a significant increase in master's students' internships has been witnessed as compared to last year's data.

PART II

ACADEMIC DEPARTMENTS

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

ACADEMIC CENTRES

Centre for the Environment
Centre for Indian Knowledge Systems
Centre for Nanotechnology
Centre for Linguistic Science and Technology

EXTRAMURAL CENTERES

Computer & Communication Centre
Central Instruments Facility
Lakshminath Bezbaroa Central Library
Centre for Career Development
Centre for Educational Technology

SCHOOLS

School of Agro and Rural Technology
School of Buisness
Mehta Family School of Data Science and Artificial Intelligence
School of Energy Science and Engineering
Jyoti and Bhupat Mehta School of Health Science and Technology

Biosciences and Bioengineering

YEAR OF ESTABLISHMENT OF THE DEPARTMENT: 2002

ACADEMIC PROGRAMMES OFFERED:

- B. Tech
- M. Tech. in Biotechnology
- M. Tech. in Bioengineering
- Ph. D.

LABORATORY FACILITIES:

Brief description of the laboratories in the department of BSBE:

i. **MAB (Mechanistic Approaches to Biology) Lab (Prof. B. Anand):** The current focus of our vibrant research group is directed towards addressing fundamental and important questions in the area of RNA biology by employing an eclectic mix of modus operandi that is drawn from biochemical, biophysical, computational and molecular genetics approaches. Our immediate obsession is to resolve the mechanistic questions pertaining to CRISPR Biology and Ribosome Biogenesis.

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. **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

v. **Biophysical Chemistry Lab (Prof. Nitin Chaudhary):** The laboratory focuses on understanding the molecular self-assembly and amyloid diseases, protein/peptide membrane interactions, and developing peptide-based antibiotics.

vi. **Bioprocess Development Lab (Prof. Debasish Das):** Bioprocess Development Lab majorly focuses on developing and demonstrating sustainable technologies towards renewable fuels. We are currently working on developing sustainable technologies towards biocrude production from microalgal isolates, butanol production from *Clostridium* sp, ethanol fermentation from adapted *Z. mobilis* strains. We have ventured towards plant tissue culture and demonstration on a pilot scale facility with industrial collaboration.

vii. **Prof. V. V. Dasu lab:** The laboratory focuses on Bioprocess development (upstream to downstream), metabolic engineering, and bioenergy.

viii. **Cancer therapeutics (Prof. Siddhartha Sankar Ghosh):** The laboratory focuses towards delineating the interconnected molecular pathways involving EMT and MDR as a potential therapeutic strategy to obliterate aggressive malignancies. We have ventured into activated signaling pathways, such as the Wnt and Notch signaling pathways and are exploring the use of gene therapy, protein therapy, SMIs, exosomes and membrane-derived nanovesicles as candidate therapeutic molecules that could be applied to target these pathways, along with the combination of rational therapeutic modalities. The lab has also set up infrastructure facilities for interdisciplinary collaborative research in the field of nanoscience and nanotechnology supported by extramural funding at IIT Guwahati. The major area is to develop new nanoparticles, nanocomposites and nanocarriers and evaluate their antimicrobial and anticancer activities

ix. **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.

x. **Carbohydrate Enzyme Biotechnology Laboratory (Prof. Arun Goyal Lab):** Research related to molecular biology, protein engineering, structural and functional proteomics of carbohydrate active enzymes are carried in this lab.

xi. **Neural Engineering Lab (Dr. Cota Navin Gupta):** Broadly the research lab's current focus is in the areas of brain computer interfaces, imaging genetics for psychiatric disorders, multimodal/multivariate algorithm development and designing wearable medical solutions for patient mobility.

xii. **Stem Cell and Cancer Biology Group (Prof. Bithiah Grace Jaganathan):** The current focus of the research group is to understand the role of mechanotransduction in stem cell differentiation and cancer metastasis. The group also studies various signaling pathways and microenvironment mediated chemoresistance in leukemia and breast cancer.

xiii. **Structural and Computational Biology Laboratory (Prof. 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.

xiv. **Molecular Microbiology Laboratory (Prof. Manish Kumar):** The research lab focuses on the molecular mechanisms underlying host–pathogen interactions in infectious diseases. Key research areas include (i) Dissecting the molecular interactions among hosts and pathogens of infectious diseases, (ii) Investigating gene expression dynamics in spirochetes- *Leptospira interrogans* and *Borrelia burgdorferi*, (iii) Developing vaccine candidates targeting outer membrane proteins of *Leptospira interrogans* and *Borrelia burgdorferi*, and (iv) Studying vector-

borne zoonotic diseases with significant public health impact. The lab has the following facilities: Laminar air flow (Thermo Scientific), incubator (Scigenics Biotech), Thermal cycler (PCR, Biorad), centrifuges (Thermo Scientific), Chemidoc (Biorad), Spectrofluorometer (Tecan M Plex), Thermo Scientific multiscan, FPLC system (Biorad), electrophoresis units (Biorad), freezers (-20 ºC and 4 ºC).

xv. **Viral Immunology lab (Prof. 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.

xvi. **Cancer Biology Laboratory (Prof. 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

xvii. **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

xviii. **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

xix. **Biomaterials and Tissue Engineering Laboratory (A DBT Unit of Excellence) (Prof. Biman B. Mandal):** Tissue engineering has emerged as a potential way to regenerate/treat tissue damage or organ failure as a result of injury and/or disease. Our laboratory majorly focusses on using silk biomaterials for developing affordable and functional lab grown tissue/organ replacements for human transplantation. The lab research is directed towards the following areas of importance i.e. Tissue Engineering of Grafts and Implants, Stem Cell Based Regenerative Medicine, Biomaterials, 3D Bioprinting, Drug Delivery Systems, 3D In Vitro Disease Models for high throughput drug screening applications. More than 160 research articles have been published with very high impact and citations, 23 patents, 03 technology licensed, 01 product launched in market.

xx. **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.

xxi. **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.

xxii. **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 the aggregation of various therapeutic proteins is studied, and (iii) Environmental Biotechnology: The lab focuses on the 3Rs. Reduce waste generation, recycle the treated waste and reuse waste as by-product or recover energy from the waste.

xxiii. **Enzyme and Microbial Technology Laboratory (Prof. Sanjukta Patra):** The EMT research group studies the microbes and their applications in different spectrums of Metagenomics, Industrial Microbiology, Extremophiles, Environmental Biotechnology, Disease Therapeutics and diagnosis

xxiv. **Molecular Informatics and Design Group (Prof. 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.

xxv. **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.
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xxvi. **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.

xxvii. **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.

xxviii. **Computational Structural Biology laboratory (Dr. Priyadarshi Satpati):** Working in biomolecular interactions using computational methods (Molecular Dynamics Simulations, Electronic Structure Calculations etc). We are interested in understanding the speed and accuracy in biological processes. Current projects include studies of antimicrobial-peptide: membrane interactions, drug discovery against Mycobacterium tuberculosis, the accuracy of CRISPR-Cas9 editing, transcription factors, Quorum sensing inhibitors or S. mutans etc.

xxix. **Bio Process Analytical Technology (BioPAT) Laboratory (Prof. Senthilkumar Sivaprakasam):** Our research area is in line with Process Analytical Technology (PAT), an US FDA initiative emphasizing "Building Quality into Products with Innovative Process Design." PAT is an emerging area of Research with the biopharmaceutical industry employing it at different stages such as raw material characterization, in-process monitoring, and final product analysis. Due to the complex and nonlinear characteristics of any bioprocess, monitoring, measuring, modelling, and controlling (M3C) are critical in bioprocess development.

We, as a crew, study the robust manufacturing of bio-therapeutics, biopolymers, and nutraceuticals. Based on the notion of revamping the microbial cells as factories by manipulating their metabolic pathway, optimizing the process conditions, real-time monitoring, and controlling the critical process parameters (CPPs) to boost productivity and achieve consistent product quality. In our BioPAT lab facility, bioprocess development of a product is facilitated via M3C technique. Employing PAT tools such as fermentation calorimeter, dielectric spectroscopy, exhaust gas analyzer, and optical density probe provides real-time metabolic insights into a bioprocess. These tools aid in identifying critical process parameters of the processes. Combining real-time measurements obtained from PAT tools with robust control strategies such as inferential control, adaptive control, model predictive control, and data-driven control ensures a consistent quality of the final product.

xxx. **RNA Binding Proteins Laboratory (Dr Kusum K Singh):** 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.

xxxi. **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. Intrinsic electronic absorption and luminescence spectra in proteins originating from photoinduced electron transfer and charge recombination, respectively are actively studied. These novel spectra discovered in our lab are employed to monitor events like protein folding or aggregation in a label-free approach.

xxxii. **Calcium signaling laboratory (Prof. Ranjan Tamuli):** We are 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. We hope to extend our Research to understand the role of calcium signaling in memory, learning, and other related areas in the future. We are also investigating application banana fiber, rice varieties from Northeast India, and endophytes from rice.

xxxiii. **Laboratory for Stem Cell Engineering and Regenerative Medicine (Dr. Rajkumar P. Thummer):** Autologous cell-based therapy is a promising alternative to achieve repair or regenerate damaged cells and/or tissue without any immune rejection. Our laboratory "Stem Cell Engineering and Regenerative Medicine", mainly focuses on generation of human cells using safe, integration-free reprogramming approaches to derive clinical-grade cells for transplantation. The outcome of our Research will bring patient-specific cell therapy closer to clinic for treatment of various debilitating.

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

xxxv. **Biochemical and Environmental Engineering Laboratory (Dr. Selvaraju Narayanasamy Lab):** The research group is primarily focused on the treatment of wastewater by microbial enzyme immobilisation, adsorption and advanced oxidation processes like photocatalysis, electrochemical oxidation etc; and unravelling the roles of several next-generation materials like MOF, and MXenes in water treatment. In addition, the lab is actively involved in microbial biodiesel production and process optimisation from industrial wastewater.

xxxvi. **Biomechanics and Simulations lab (Dr. Souptick Chanda)**: Biomechanics Lab with subject specialization and research Interests in Orthopaedic biomechanics, implant design and optimization, surgical simulations and application of soft computing/AI in allied fields.

xxxvii. **Computational lab:** The computational lab is used for carrying out the several computational courses of UG and PG classes such Bioinformatics, Computational Biology, Quantitative Biology, Biological Data analysis etc.

xxxviii. **Experimental Teaching laboratory:** The laboratory is used to conduct the experimental course of the B. Tech. and M.Tech. curriculum.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED (1 APRIL 2024– 31 MARCH 2025):

1) Walk-in Cold Storage, Make: Bhanu Biotech, Model: Custom Made
2) Flowcytometer Make: BD, Model: FACS Lyric
3) Oil free compressor, Make: Tarsons, Model: Rockyvac 420
4) Projector, Make: Viewsonic, Model: LS510WP; 02 numbers
5) Dehumidifier, Make: Origin Novita, Model: ND 328
6) Tetra pack, Make: BioRad, Model: Tetrapack
7) Transblotter, Make: BioRad, Model: Trans blot SD
8) Tower AC 2 TR
9) Tower AC 4 TR

MAJOR AREAS OF RESEARCH AND DEVELOPMENT:

Cell signaling, Systems Biology, Plant Tissue Culture & Secondary Metabolites Production, Protein Biochemistry, Molecular Biology, Immuno Prasitology, Biofuel, Biochemical Engineering, Tissue Engineering and Biomaterials, Stem Cell Biology, Cell Therapy & Regenerative Medicine, 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, Enzyme and Microbial Technology, Metagenomics, Environmental Biotechnology, Applied Biodiversity, Biosensors,Systems Biology, Bioprocess Engineering, Cancer Biology, Bio/Physio Sensors and Nanobioengineering, Biosensors and bio-fuel cells, Neural Engineering. Network medicine, Bio-Nano catalysis, Drug delivery vehicles, Preparation of polypyrrole embedded nanocellulose and surfactant (CTAB) modified carbon adsorbent for efficient elimination of azo-anionic dyes. Elimination of pharmaceutical wastes viz. antibiotics using carbon and grass based nanocellulose adsorbents. Phyto, microbial and fish toxicity studies for ecotoxicological assessment of the prepared adsorbents to understand its significance in eliminating pollutants from aqueous bodies, Biomechanics, Soft computing, Artificial intelligence, Machine learning, Implant design.

Initiatives of DBT programme Support: Prof. Ghosh as a PI along with other faculty members, involved in DBT Program Support Phase –II project at IIT Guwahati, received project support from the DBT India on “Translation Research Programme for Developing Diagnostics and Nano-based Sensors”. This multidisciplinary programme was formulated based on the major leads of the existing DBT Programme Support project. Besides manpower training and basic Research, this new project is aimed to develop sensors and Transfer of Technology (ToT) to the Start-Up companies. Prof. Ghosh has also received a multi-institutional grant on "mechanistic Investigation for EMT targeted nanotherapeutics".

Carbohydrate Enzyme Biotechnology Laboratory (Prof. Arun Goyal): Molecular Biology, Protein Engineering, Structural and Functional Proteomics of Carbohydrate active enzymes, other industrially important microbial enzymes and bio fuel production from lignocellulosic agriculture wastes.

RNA Binding Proteins Laboratory (Dr. Kusum K Singh): We work in the area of RNA binding proteins that are involved in alternative splicing of RNA, its export, translation and decay.

- We have identified novel microRNAs that can regulate UPF3B protein, which is a crucial factor of RNA decay.

- We have established UPF3B as an important NMD factor that regulates a specific subset of substrates that are stabilized in its absence.

Bio-interface & Environmental Engineering Lab (Dr. Lalit Mohan Pandey): Bio-interface Engineering, Surface modification, Protein aggregation, Nano-biotechnology, Microbial enhanced oil recovery, Bioremediation of hazardous wastes i.e. oil spills, dyes, heavy metals

Plant Tissue Culture and Secondary Metabolite production laboratory (Prof. Rakhi Chaturvedi): We are primarily working in the field of plant tissue culture and secondary metabolite production. Our lab has established a solid foundation, both theoretically and experimentally, in the area of Plant Tissue Culture (PTC) and Secondary Metabolite analysis and large-scale production, Plant Biochemical Engineering, Bioreactor cultivation and Plant Sciences.

Bioprocess Development Lab (Prof. Debasish Das): Sustainable process development for value-added products using microbes as cell factories. Our research spans microalgae-based biofuel and high-value compounds production, metabolic engineering for omega-3 fatty acids, bioprocess optimization, and innovative waste-to-energy technologies. We combine chemical and biochemical engineering, systems biology, and molecular biology to address challenges in drug reduction costs, bioproducts, and environmental sustainability

Molecular Microbiology Laboratory (Prof. Manish Kumar): Investigating host–pathogen interactions and elucidating the molecular pathogenesis of spirochetes; characterizing outer membrane proteins as potential targets for therapeutic and vaccine development; and advancing the understanding of zoonotic diseases to support the development of molecular diagnostics and intervention strategies.

Calcium signaling laboratory (Prof. Ranjan Tamuli): Calcium and cell signaling, Genetics of the filamentous fungus *Neurospora crassa*, DNA repair, Fungal Biology, Rice.

Cancer therapeutics (Prof. Siddhartha Sankar Ghosh): Multifaceted approach in cancer therapeutics which encompasses Drug Repurposing, Nanotheranostics and targeting EMT Dynamics.

Biochemical and Environmental Engineering Laboratory (Dr. Selvaraju Narayanasamy): Environmental Biotechnology; Wastewater treatment; Biodiesel Production and Optimization; Nanomaterials: Characterizations and Synthesis; Microbial Enzyme Production and environmental application; Advanced Oxidation Processes.

Organelle Biology and Cellular Ageing Lab (Dr. Shirisha Nagotu): Organelle biology, Cellular Ageing, Membrane contact sites, Inter-organelle communication.

Biomechanics and Simulations lab (Dr. Souptick Chanda):

- Patient Specific THR Implant customized with lattice structures.
- Design rationale of expandable pedicle screws for lumbar spine

- Development of a novel lattice-structured THR implant for canine femora
- CT-scan based detection and volume estimation of hemoperitoneum in non-uniform space
- Integrated deep learning and biomechanical framework for femur fracture classification and treatment personalization
- Effects of Porosity in Ti-scaffolds on MG63 Osteoblast-like Cell Behaviour.
- Development of the Microwave-Photonotic Hybrid Wearable Sensor for in vivo Monitoring of Hip Stem Micro-movements (with Co-PIs from another institute)

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT (1 APRIL 2024–31 MARCH 2025):

1. **Prof. Rakhi Chaturvedi:**
   - **Publication**: Pachauri K. K. and Chaturvedi Rakhi*. 2025. Kinetic analysis and modelling of therapeutically important dodeca-2E, 4E,8Z,10E, Z-tetraenoic acid isobutylamides production from adventitious root cultures of Spilanthes paniculata Wall. ex DC. Ind. Crops Prod. 229: 120997. (DOI: 10.1016/j.indcrop.2025.120997) [Publisher: Elsevier]

2. **Prof. Debasish Das:**
   - **Publication**: Mahana, Abhijeet, Tapas Kumar Mandal, and Debasish Das. "Utilization of cyanobacterial adsorbents for remediation of lead ions from contaminated water: Insights into bioremediation strategies." *Journal of Hazardous Materials* (2025): 138329.

3. **Dr. Lalit Mohan Pandey:**
   - The isolation of a probiotic Bacillus strain from the traditional Assamese fermented food Panitenga and its subsequent application in biosurfactant-mediated crude oil degradation garnered extensive media attention. The study was featured in prominent national and regional platforms such as The Assam Tribune, Millennium Post, The Economic Times, India Today, ETV Bharat, and several other news outlets, in addition to wide dissemination across social media channels. The scientific findings of this work were also published in the reputed journal Food and Bioproducts Processing.
   - Synthesis of an engineered albumin hydrogel embedded with in situ silver oxide nanoparticles, unlocking promising avenues for next-generation biomedical applications.

4. **Prof. Manish Kumar:**
   - Deciphered Nucleotide-Induced Oligomerization of ClpC and Its Flexible Association with ClpP Isoforms in Pathogenic *Leptospira*
   - Identified ErpY-Like Protein as a Key Host-Interacting Factor Modulating Coagulation Pathways
   - Characterized TolC Efflux Protein as a Multifunctional Virulence Factor in *Leptospira*

5. **Prof. Utpal Bora**

i) Muga Silkmoth's Genome Decoded: A Scientific Milestone:

In a landmark breakthrough, from the Bioengineering Research Lab (BERL) at IIT Guwahati, in collaboration with the Seribiotech Research Laboratory (Bangalore), the Central Muga Eri Research and

Training Institute (Jorhat), and the Indian Institute of Science (Bangalore), have successfully decoded the entire genome of the Indian golden silkmoth (Antheraea assamensis)—the iconic insect behind Assam's treasured muga silk.

This marks the first-ever mapping of the species' full genetic code, opening up new in silk science, biodiversity conservation, and sustainable innovation. The findings, published in Genomics, Volume 116, Issue 3 (2024), offer critical insights into how this unique silkmoth spins its golden fiber, adapts to its environment, and has evolved over tens of millions of years.

Importantly, the study reveals that A. assamensis diverged from its closest relatives over 28 million years ago, underlining its remarkable evolutionary distinctiveness.

This achievement marks yet another milestone in IIT Guwahati's pioneering efforts in muga silkworm research, driven by the Bioengineering Research Lab (BERL), which previously mapped the species' transcriptome (Gene, May 2017) and mitochondrial genome (PLOS ONE, November 2017).

By bridging Assam's silk heritage with cutting-edge science, this achievement lays the groundwork for smarter conservation, advanced silk technologies, and deeper understanding of nature's genetic wonders.

Dubey, H., Pradeep, A. R., Neog, K., Debnath, R., Aneesha, P. J., Shah, S. K., Bora, U... & Arunkumar, K. P. (2024). Genome sequencing and assembly of Indian golden silkmoth, Antheraea assamensis Helfer (Saturniidae, Lepidoptera). Genomics, 116(3), 110841.

ii) IIT Guwahati Team Develops DNA Aptamer for Celiac Detection from Glutenin

Researchers from the Bioengineering Research Lab (BERL) at IIT Guwahati have taken an important step toward better food safety by developing a DNA aptamer that can detect gluten components linked to celiac disease. Their discovery, published in Cereal Research Communications (July 2024), expands the diagnostic potential of aptamer-based tools, which until now had focused mostly on one part of gluten called gliadin.

Gluten, the protein found in wheat, rye, and barley, contains elements that can trigger strong autoimmune reactions in people with celiac disease. Unlike previous efforts, this study focuses on another major—but often overlooked—part of gluten known as glutenin.

This aptamer, designed and validated by the BERL team, adds a powerful new tool for identifying harmful gluten fragments in food products. With further refinement, it could be part of new testing technologies to help individuals living with gluten sensitivities or celiac disease better navigate food choices.

Kalita, J. J., Sharma, P., & Bora, U. (2024). Selection and characterisation of DNA aptamer targeting immunogenic peptide sequence of high molecular weight glutenin (HMW-GS) of gluten. Cereal Research Communications, 1-14.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL (1 APRIL 2024–31 MARCH 2025)

Sl. No.	Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
1.	Prof. Ajaikumar B. Kunnumakkara	American association for cancer research annual meeting	San Diego Convention Center, San Diego, USA	April 5 - 10, 2024	International
2.	Prof Arun Goyal	Sustainability and Bioresource	Hong Kong, China.	1-6/12/2024	International

		Management (IBA-IFIBiop XI, 2024)			
3.	Prof. Arun Goyal	IX International Conference on Sustainable Energy and Environmental Challenges (IX SEEC 2024)	IIT Mandi, Himachal Pradesh, India.	13-15/12/2024	International
4.	Prof. B. Anand	Asia-Pacific Worm Meeting 2024	IISc, Bangalore	13/06/2024 – 16/06/2024	International
5.	Prof. B. Anand	CRISPR-2025	Christchurch, New Zealand	16/02/2025 – 20/02/2025	International
6.	Dr. Kapish Gupta	Brainstorming session on Organ on chip organized by ILBS and CEFIPRA	NIPER Guwahati	12-Jan-25	National
7.	Dr Kusum Kumari Singh	India|EMBO Lecture Course RNA-protein complexes: from molecular assembly to physiological functions and diseases	NCCS, Pune, India	24th to 28th Feb, 2025	International
8.	Dr Kusum Kumari Singh	Nobel Lecture Series	Tezpur University	29th Jan, 2025	National
9.	Dr Kusum Kumari Singh	National Conference on Advanced Biotechnology and Biosystem	DDU Gorakhpur University	11th to 12th Nov, 2024	National
10.	Dr Kusum Kumari Singh	FASEB SRC: Mechanism of RNA decay	University Institute of Lisbon	18th to 22nd Aug, 2024	International
11.	Prof. Kannan Pakshirajan	Joint Conference of ISEH, ICEPH & ISEG on Environment and Health	Galway, Ireland	11/08/2024 – 18/08/2024	International
12.	Prof. Kannan Pakshirajan	9th International Conference on Research Frontiers in Chalcogen Cycle Science & Technology	Online	20/03/2025 – 21/03/2025	International
13.	Prof. Kannan Pakshirajan	2nd International Conference on Advances in Energy and Environment for Sustainable Development (AEESD – 2025)	Bhubaneswar, Odisha	28/03/2025 – 29/03/2025	International

14.	Dr. Lalit Mohan Pandey	24th International Symposium on Surfactants in Solution	BITS Pilani, K K Birla Goa Campus, India	June 16-21, 2024	International
15.	Dr. Lalit Mohan Pandey	An International Conference on Environmental Challenges, Opportunities and Sustainable Solutions	Indian Institute of Technology Guwahati, Assam	December 09-12, 2024	International
16.	Dr. Lalit Mohan Pandey	Expert Talk in STC/FDP on "Nanomaterials and their applications in Biotechnology"	NIT Jalandhar	Jan 20-24, 2025	National
17.	Dr. Lalit Mohan Pandey	International Conference on 'Innovation & Impacts: A Multidisciplinary Approach to Sustainable Development Goals'	Rabindranath Tagore University, Hojai, Assam, India	March 22–24, 2025	International
18.	Dr. Lalit Mohan Pandey	Invited lecture in Research & Industrial Conclave 2024	Indian Institute of Technology Guwahati, Assam	August 09-11, 2024	National
19.	Prof. Manish Kumar	International Leptospirosis Society	Brussels, Belgium	2-4 Sept 2024	International
20.	Prof. Rakhi Chaturvedi	National conference on biotechnology for sustainable development (BSD-25)	Birla Institute of Technology Mesra, Ranchi, Jharkhand, India	27/3/2025 to 29/03/2025	National
21.	Prof. Rakhi Chaturvedi	7-Days National Level hands-on training cum workshop on modern tools and techniques in biological science	Manipur University, Canchipur, Imphal	03/3/2025 to 09/03/2025	National
22.	Chetna Sharma, Prof. Emiko Yanase, Prof. Yoshiharu Y. Yamamoto and **Prof. Rakhi Chaturvedi**	Japan-NER Sustainable Technologies Cooperation Symposium (JNSTCS)	Indian Institute of Technology Guwahati, Guwahati, Assam	03/3/2025 to 05/03/2025	International

23.	Prof. Rakhi Chaturvedi	46th Annual Meeting of Plant Tissue Culture Association India Symposium on Current Trends and Challenges in Plant Biotechnology (CTCPB)	BITS Pilani K K Birla Goa Campus, Goa	24/02/2025 to 26/02/2025	National
24.	Krishna Kant Pachauri and **Prof. Rakhi Chaturvedi**	46th Annual Meeting of Plant Tissue Culture Association India Symposium on Current Trends and Challenges in Plant Biotechnology (CTCPB)	BITS Pilani K K Birla Goa Campus, Goa	24/02/2025 to 26/02/2025	National
25.	Chetna Sharma and **Prof. Rakhi Chaturvedi**	46th Annual Meeting of Plant Tissue Culture Association India Symposium on Current Trends and Challenges in Plant Biotechnology (CTCPB)	BITS Pilani K K Birla Goa Campus, Goa	24/02/2025 to 26/02/2025	National
26.	Chetna Sharma, Abhishek Dwivedi, Krishna Kant Pachauri and **Prof. Rakhi Chaturvedi**	International Conference on Advances in Medicinal and Aromatic Plant Research in Context to Indian Ocean Region (Ensuring Trade, Sustainability and Global Transformation) (IORA-AMAR)	CSIR - Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow	04/02/2025 to 06/02/2025	International
27.	Prof. Rakhi Chaturvedi	International Conference on Advances in Medicinal and Aromatic Plant Research in Context to Indian Ocean Region (Ensuring Trade, Sustainability and Global Transformation) (IORA-AMAR)	CSIR - Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow	04/02/2025 to 06/02/2025	International
28.	Prof. Rakhi Chaturvedi	Path to sustainable future: Innovations in Biomanufacturing	National Centre for Cell Sciences, NCCS complex, Pune	14/10/2024 to 15/10/2024	National

		(IGSTC-NCCS workshop)			
29.	Prof. Rakhi Chaturvedi	1st Asia-Pacific Congress on Alternate Crops (APCAC – 2024)	The Assam Royal Global University, Guwahati, Assam	09/09/2024 to 12/09/2024	National
30.	Krishna Kant Pachauri and **Prof. Rakhi Chaturvedi**	International Conference on Frontier Areas of Science & Technology (ICFAST-2024), Indian JSPS Alumni Association (IJAA) & Indian Institute of Technology Guwahati	Indian Institute of Technology Guwahati, Guwahati, Assam	06/09/2024 to 07/09/2024	International
31.	Dr. Priyadarshani Yengkokpam and **Prof. Rakhi Chaturvedi**	International Conference on Frontier Areas of Science & Technology (ICFAST-2024), Indian JSPS Alumni Association (IJAA) & Indian Institute of Technology Guwahati	Indian Institute of Technology Guwahati, Guwahati, Assam	06/09/2024 to 07/09/2024	International
32.	Prof. Rakhi Chaturvedi	Society for In Vitro Biology Meeting (SIVB 2024)	St. Louis, Missouri, USA	08/06/2024 to 12/06/2024	International
33.	Prof. Rajaram Swaminathan	IUPAB Meeting 2024	Kyoto, Japan	24-06-2024 to 28-06-2024	International
34.	Prof. Ranjan Tamuli	Bioinformatics and Molecular Biology Techniques	Gauhati University	22.11.2024	National
35.	Prof. Ranjan Tamuli	3rd National Conference of North Eastern Medical Pharmacological Society (NEMPSCON 2024), Guwahati Medical College and Hospital (GMCH)	NEMPSCON and GMCH	16.11.2024	National
36.	Dr. Shirisha Nagotu	Moderator for the session “Imaging	IISER Pune	12/12/24	National

		Infrastructure Around the Globe" on Day 1 of the India Bio-imaging meeting			
37.	Prof. Utpal Bora	National Conference on Polymers and Advanced Functional Materials (NCPAFM)	IASST, Guwahati.	13/12/2024 to 14/12/2024	National
38.	Prof. Utpal Bora	5th International Conference on Contemporary Antimicrobial Research 2024	NEHU, Shillong.	08/12/2024 to 10/12/2024	International
39.	Prof. Utpal Bora	International Conference on Fisheries Biotechnology	ICAR- Central Institute of Fisheries Education, Mumbai.	17/03/2025 to 18/03/2025	International
40.	L Rangan	International conference on Biotechnology, Medicine and Cancer Therapeutics	SV University	25-27 Dec 2024	International
41.	L Rangan	Workshop on Women Leader in IITs	IIT Chennai	31/08/2024 & 22/11/2024	National

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD (1 APRIL 2024– 31 MARCH 2025)

Sl.No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
1.	Prof. Ajaikumar B. Kunnumakkara	Methods to Enhance the Bioavailability of Curcumin: Insights and Discoveries	University Sains Malaysia	Malaysia	May 13 -14, 2024
2.	Prof. Ajaikumar B. Kunnumakkara	TIPE 2 as a novel molecular target for lung cancer	Research world	Bangkok, Thailand	June 21 - 22, 2024
3.	Prof. Ajaikumar B. Kunnumakkara	Mortalin: A potential therapeutic target in oral cancer	6th international seminar on smart molecules of natural resources (ISSMART) and Asian Federation of Biotechnology (AFOB)	Malang, Indonesia	Aug 26 - 27, 2024
4.	Prof. Ajaikumar B. Kunnumakkara	Withaferin A is a promising natural drug for oral cancers: Insights from clinical resources	Widyaloka Brawijaya University	Malang, Indonesia	Sep 28 - 29, 2024

5.	Prof. Ajaikumar B. Kunnumakkara	Development of novel therapeutics for the treatment of triple negative breast cancer	National University of Singapore	Singapore	Oct 1 - 2, 2024
6.	Prof. Ajaikumar B. Kunnumakkara	Potential role of mortalin as a novel molecular target for oral cancer	Global Society for Research and Development (GSRD)	Dubai, UAE	Oct 13 - 14, 2024
7.	Prof. Ajaikumar B. Kunnumakkara	Ashwagandha - a new hope for treating oral cancers, a scary threat in the North-East region of India	All India Institute of Ayurveda (AIIA), New Delhi	New Delhi	Oct 17 - 19, 2024
8.	Prof. Ajaikumar B. Kunnumakkara	Emerging health issues and challenges: Perspective from North East India	Physiological Society of India, Tripura University	Agartala, Tripura	Nov 15 - 17, 2024
9.	Prof. Ajaikumar B. Kunnumakkara	Mortalin as a promising target for drug development for oral cancers	Jawaharlal Nehru University	New Delhi	Nov 23 - 25, 2024
10.	Prof. Ajaikumar B. Kunnumakkara	Withaferin A as a promising natural drug for the treatment of oral cancer	Dr. D. Y. Patil Vidyapeeth Pune	Pune, Maharashtra	Nov 26 - 29, 2024
11.	Prof. Ajaikumar B. Kunnumakkara	Why Ashwagandha for Oral cancers?	CSIR-IITR, Lucknow	Lucknow	Nov 28 - Dec 1, 2024
12.	Prof. Ajaikumar B. Kunnumakkara	Ethnopharmacology: Role in Affordable Healthcare	NIPER Guwahati	Guwahati	Feb 22, 2025
13.	Prof. Arun Goyal	Multifunctional and highly efficient endoglucanase (*Rf*GH5_4) from *Ruminococcus flavifaceins* for lignocellulosic biomass conversion	Banaras Hindu University (BHU),	Varanasi, UP	April 4, 2024
14.	Prof. Arun Goyal	Structure and functional analysis of recombinant rhamnogalacturonan acetyl esterase and its role in inhibiting colon cancer cells and colon-targeted drug delivery by forming hydrogels.	International Conference on Advanced Bioprocessing Technologies for Biomass Conversion - Sustainability and Bioresource Management (IBA-IFIBiop XI, 2024)	Hong Kong, China.	December 01 - 04, 2024
15.	Prof. Arun Goyal	Lignocellulosic bioethanol production from delignified rice straw using tailor-made crude recombinant hydrolytic enzyme cocktail and Saccharomyces cerevisiae MTCC170. IX	International Conference on Sustainable Energy and Environmental Challenges, (IX SEEC, 2024)	IIT Mandi, HP, India.	December 12-14, 2024

16.	Prof. Arun Goyal	Recombinant carbohydrate enzyme in conversion of waste biomass to biovalued products (Endo-β-mannanase (CtManf) of Clostridium thermocellum for recovery of Manno-oligosaccharides from Coprameal and their prebiotic and anticancer properties)	Department of Microbiology, Maharishi Dayanand Saraswati University,	Ajmer, Rajasthan	February, 7, 2025
17.	Prof. Arun Goyal	Bioethanol from rice straw using recombinant hydrolytic enzyme cocktail and Saccharomyces cerevisiae.	Japan-NER Sustainable Technologies Cooperation Symposium (JNSTCS) 2025	IIT Guwahati, Assam, India	March 3 -5 2025
18.	Prof. B. Anand	CRISPR-Cas System: From Genome Defence to Tinkering Genome	Manipal University, Jaipur	Jaipur	13/09/2024
19.	Prof. B. Anand	Panel Discussion: "Next Generation Biotechnology: Transforming Healthcare and Medicine in India"	India International Science Festival 2024	IIT Guwahati	01/12/2024
20.	Prof. B. Anand	CRISPR-Cas System: From Genome Defence to Tinkering Genome	Pondicherry University	Puducherry	03/03/2025
21.	Dr. Kapish Gupta	Mechanobiology	NUS Singapore	Online	12 November 2024 and 26 November 2024
22.	Dr Kusum Kumari Singh	India|EMBO Lecture Course: "BioID proximity mapping reveals novel SAP18 interactome in the presplicesomal complex."	NCCS, Pune	Pune	24/02/2025
23.	Dr Kusum Kumari Singh	Nobel Lecture Series: "Regulation of RNA Binding Proteins via microRNAs."	Tezpur University	Tezpur	29/01/2025
24.	Dr Kusum Kumari Singh	National Conference on Advanced Biotechnology and Biosystem: "Role of NMD factor in faulty transcripts degradation."	DDU Gorakhpur University	Gorakhpur	12/11/2024
25.	Dr Kusum Kumari Singh	FASEB SRC: "Impairment of NMD upon UPF3B-KO cells."	University Institute of Lisbon	Lisbon	20/08/2024
26.	Prof. Kannan Pakshirajan	Biological removal and recovery of lanthanum from electronic waste leachate using the lanthanum binding protein lanmodulin from *Methylobacterium extorquens*	University of Galway	Galway, Ireland	15/08/2024

27.	Prof. Kannan Pakshirajan	Environmental effects and toxicity removal of chemicals and fertilizers	Central Industrial Security Force (CISF) CISF NES	CISF NES HQr Guwahati	18/10/2024
28.	Prof. Kannan Pakshirajan	Functional bionanominerals for sustainable circular economy	Dr. B R Ambedkar National Institute of Technology (NIT) Jalandhar	Jalandhar, Punjab, INDIA	24/01/2025
29.	Prof. Kannan Pakshirajan	Unraveling the potential of lanmodulin as a peptide-based platform for biorecovery and biosensing of rare earth elements	University of Galway	Online	20/03/2025
30.	Prof. Kannan Pakshirajan	Functional biometalsulfide and selenium nanoparticles from wastewater: A circular economy approach	Siksha 'O' Anusandhan	Bhubaneswar Odisha	28/03/2025
31.	Dr. Lalit Mohan Pandey	Expert Talk on "Nanomaterials and their applications in Biotechnology"	NIT Jalandhar		Jan 20-24, 2025
32.	Dr. Lalit Mohan Pandey	Plenary talk on "Biotechnology and Sustainability"	Rabindranath Tagore University, Hojai, Assam, India		March 22–24, 2025
33.	Dr. Lalit Mohan Pandey	Invited lecture on "Biointerface Engineering and Biomaterials"	Indian Institute of Technology Guwahati, Assam		August 09-11, 2024
34.	Prof. Pranab Goswami	Photosynthetic Microbial Fuel Cell: A Bio-inspired System for Generating Green Energy and Developing Sensors	School of Energy, IIT Guwahati	IIT Guwahati, Assam	03/01/2025
35.	Prof. Rakhi Chaturvedi	Sustainable Production of Plant Secondary Metabolites by the Application of Cellular Potency	Department of Bioengineering & Biotechnology, Birla Institute of Technology Mesra, Ranchi, Jharkhand, India	Birla Institute of Technology Mesra, Ranchi, Jharkhand, India	27/3/2025 to 29/03/2025
36.	Prof. Rakhi Chaturvedi	Application of Cellular Totipotency in Large Scale Clonal Propagation and Sustainable Metabolite Production in Plants	Department of Life Science, Manipur University, Canchipur, Imphal	Manipur University, Canchipur, Imphal	03/3/2025 to 09/03/2025
37.	Prof. Rakhi Chaturvedi	Scaling-Up Plant Tissue Culture Products Through Bioreactor Technology	46th Annual Meeting of Plant Tissue Culture Association India Symposium on Current Trends and Challenges in Plant Biotechnology (CTCPB)	BITS Pilani K K Birla Goa Campus, Goa	24/02/2025 to 26/02/2025

38.	Prof. Rakhi Chaturvedi	Bioreactor Technology: A sustainable tool for commercial scale production of plant cell derived products	International Conference on Advances in Medicinal and Aromatic Plant Research in Context to Indian Ocean Region (Ensuring Trade, Sustainability and Global Transformation) (IORA-AMAR)	CSIR - Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow	04/02/2025 to 06/02/2025
39.	Prof. Rakhi Chaturvedi	Sustainable Tools for Commercial Scale Production of Plant Products	Path to sustainable future: Innovations in Biomanufacturing (IGSTC-NCCS workshop)	National Centre for Cell Sciences, NCCS complex, Pune	14/10/2024 to 15/10/2024
40.	Prof. Rakhi Chaturvedi	Cellular totipotency favouring large scale sustainable plant propagation	1st Asia-Pacific Congress on Alternate Crops (APCAC – 2024)	The Assam Royal Global University, Guwahati, Assam	09/09/2024 to 12/09/2024
41.	Prof. Rakhi Chaturvedi	Bioreactor Technology: A sustainable tool for conservation and commercial scale production of plant bioresources	National Academy of Sciences, India (NASI)	Rajiv Gandhi University, Itanagar, Arunachal Pradesh	09/09/2024 to 10/09/2024
42.	Prof. Rakhi Chaturvedi	Bioreactor technology: A sustainable tool for commercial scale production of plant cell derived products	Society for In Vitro Biology Meeting (SIVB 2024)	St. Louis, Missouri, USA	08/06/2024 to 12/06/2024
43.	Prof. Rajaram Swaminathan	Detection of Post-translational Modifications in Proteins by UV-Visible Absorption Spectra arising from Charge Transfer	M S University Baroda	Vadodhara	27 Dec 2024
44.	Prof. Rajaram Swaminathan	UV-Visible Spectra in Proteins arising from Charge Transfer: A useful intrinsic probe to investigate changes in protein structure	IIT Bombay	Mumbai	21 Nov 2024
45.	Prof. Ranjan Tamuli	Concept of Bacterial Transformation and Plasmid Isolation	Gauhati University, and DBT, India	Department of Botany, Gauhati University	22.11.2024
46.	Prof. Ranjan Tamuli	Antifungals, artificial intelligence, and personalized medicine: a holistic approach	North Eastern Medical Pharmacological Society (NEMPSCON 2024), Guwahati Medical College and Hospital (GMCH)	Guwahati Medical College and Hospital	16.11.2024

47.	Dr. Souptick Chanda	Design rationale of custom 3D printable lattice structured hip stem: a futuristic scheme	Stryker India Pvt Ltd	R&D Building, IIT Guwahati	05/07/2024
48.	Dr. Souptick Chanda	Custom 3D printable lattice structured hip stem: A future for total hip replacement	Sadhana Editorial Board, Indian Academy of Sciences	IIT Bhubaneswar	09/11/2024
49.	Dr. Souptick Chanda	Custom 3D printable lattice structured hip stem: A future for total hip replacement	Sadhana Editorial Board, Indian Academy of Sciences	KIIT Bhubaneswar	10/11/2024
50.	Dr. Souptick Chanda	Lattice hip stems: The present and the future	*SPARC sponsored international workshop on Recent Trends in Electromagnetics and Optics (RTEOP) special focus on Biomedical application, IIEST*	IIEST Shibpur, Howrah	07/01/2025
51.	Dr. Souptick Chanda	Customizable implants: The era of 3D printing	Jindal Steel & Power	Pragati Manor, Guwahati	23/01/2025
52.	Dr. Shirisha Nagotu	"Organelle dynamics: role in cellular ageing and age-associated diseases" at Longevity India conference	Indian Institute of Science	Bangalore	11/03/25
53.	Dr. Shirisha Nagotu	"Organelle dynamics: role in cellular ageing and age-associated diseases" at 1st International Conference on Biomedical and Applied Clinical Sciences (BioMACS'25)	Woxen University	Hyderabad	25/02/25
54.	Dr. Shirisha Nagotu	"Organelle dynamics: role in cellular ageing and age-associated diseases" at 21st Biennial International Conference of AGI 2024 on Elderly Empowerment & Graceful Ageing Conference Association of Gerontology, India	National Institute of Health and Family Welfare	New Delhi	14/12/24
55.	Dr. Shirisha Nagotu	Microscopy facility: Indian Imaging Cores	IISER Pune	Pune	12/12/24
56.	Prof. Utpal Bora	Engineering Advanced Biomaterials with Synthetic Biology	IASST, Guwahati.	Guwahati	14/12/2025
57.	Prof. Utpal Bora	Green Remedies: Medicinal Plants in a Changing Climate	NEHU, Shillong.	Shillong	10/12/2024
58.	Prof. Utpal Bora	Scaffold Engineering	ICAR- Central Institute of Fisheries Education, Mumbai.	Mumbai	17/03/2025
59.	Prof. Latha Rangan	Partial estrogen-like effects of karanjin and the mechanism involved.	SV University Tirupati	Tirupati, AP	27/12/2024

60.	Prof. Latha Rangan	Legume Gold Mine- Pongam Saga	Tezpur university	Tezpur, Assam	16/12/2024
61.	Prof. Latha Rangan	Exploring Intersectionality: Gender, Ethnicity, and Identity in Northeast India	NEHU	Shillong, Meghalaya	14-15/06/2024
62.	Prof. Siddhartha Sankar Ghosh	Theranostics: The Offspring of Therapeutics and Diagnostics	11th Annual Scientific Conference; ACCLMPCON 2025	Dichang Resort, Guwahati, Assam	11/01/2025
63.	Prof. Siddhartha Sankar Ghosh	Two Decades Advancing Nanotheranostics: From Laboratory to Clinical Applications	Indo-Japan Symposium on Nanotheranostics (InJaNa 2024)	IIT Roorkee	23/04/2025

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES LECTURES (1 APRIL 2024– 31 MARCH 2025)

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks
1.	Dr Rajesh S. Gokhale	Secretary, DBT, Govt. India	Discussion and interaction with BSBE faculty members	01/12/2024	
2.	Prof. Nitish R Mohapatra	Department of Biotechnology, IIT Madras	Post-transcriptional regulation of cardiometabolic-susceptibility genes by microRNAs	25/10/2024	Invited Talk
3.	Prof. Hiroyuki Koyama	Professor of Plant Nutrition at the Faculty of Applied Biological Science, Gifu University, Japan	Interaction with faculty members of BSBE department	06/09/2024	He joined Dept. of BSBE as Honorary Professor
4.	Dr. Aravind Penmatsa	Indian Institute of Science, Bangalore	Ion-coupled transport in neurons and superbugs	04/11/2024	Dr. Aravind is a recipient of Vigyan Yuva-Shanti Swarup Bhatnagar Award in 2024
5.	Shri Khim Panthi	Tribhuvan University, Nepal	Indian Science Research Fellowship	April-May, 2024	
6.	Prof. Aron Lau	University of Strathclyde, Glasgow	Visiting lab	December 10, 2024	
7.	Prof. Seetharaman Vaidyanathan	Sheffield University, England	Towards sustainable biomanufacturing in a circular bioeconomy	16-08-2024	
8.	Dr. Durgadas P. Kasbekar	CCMB and CDFD (Retd.)	Editorial Board Meeting and mini-symposium on October 4, 2025	04.10.2025	Editor, Journal of Genetics
9.	Dr. Madhusudan Reddy Nandineni	Staff Scientist and Group Leader, Centre for DNA Fingerprinting and Diagnostics	DNA profiling in criminal investigations and mass disaster victim identification	04.10.2025	Institute Lecture

		(CDFD), Hyderabad			
10.	Prof. M. Michael Gromiha	Professor, Department of Biotechnology, Indian Institute of Technology Madras	Bioinformatics approaches for understanding mutational effects on protein structure and function: implications to diseases	17/05/2025	Bio-Talk at the BSBE department
11.	Prof. Avadesha Surolia	Professor of Biophysics, Molecular Biophysics Unit, Indian Institute of Science, Bangalore	Discovery of an allosteric inhibitor of M. Tuberculosis Ornithine acetyltransferase: Implications towards novel combinatorial therapy	04/11/2024	Invited talk
12.	Prof. Amitabha Chattopadhyay	CSIR Bhatnagar Fellow, Centre for Cellular and Molecular Biology, Uppal Road, Hyderabad	G Protein-Coupled Receptors and Cholesterol Sensitivity: Excitements and Challenges	04/11/2024	Invited talk
13.	Dr. Nobuyoshi Ishino and team	R&D Operation and Business Development Group at IBIDEN Co. Japan	Technical discussion with the IITG team lead by Prof. Lingaraj Sahoo, Professor at BSBE department	08/08/2024	

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED (1 APRIL 2024– 31 MARCH 2025)

Sl. No.	**Name of Faculty (Convener/ Co-ordinator, etc.)**	**Name of Sem./Wor./Con.**	**Funded By**	**Date**	**International/ National**	**No. of participants**
1.	Prof. B. Anand and Dr. Kusum K. Singh	12th RNA Group Meeting (RNA Meet -2024)	SERB	22/05/2024 – 24/05/2024	National	150
2.	Dr. Kapish Gupta	BSBE Alumni meet	NA	26-27 October 2024	NA	100
3.	Dr. Kusum Kumari Singh	12th RNA Group Meeting	SERB	22 to 24th May, 2024	National	130
4.	Dr. Lalit Mohan Pandey	Curtain raiser event on Indian Knowledge Systems	Pandit Hemchandra Goswami Foundation	06th April, 2024	International	200+
5.	Dr. Lalit Mohan Pandey	Unraveling Indian Knowledge Across Asia (UNIKAA 2024)	North Eastern Council, Govt. of India (NEC), Indian Council of Philosophical Research (ICPR), Indian Council of	3rd to 5th October, 2024	International	350+

			Astrological Sciences (ICAS)			
6.	Dr. Lalit Mohan Pandey	Leadership Summit 2024	NRL, BNY, Micronesia, NetApp	October 19- 20, 2024	National	1000
7.	Dr. Lalit Mohan Pandey	BSBE Alumni Meet 2024	Merck, Orbitek, Molbiogen, Digitek Solutions, BDS Analytical, Innovative Technologies, Jaldhara	October 26 - 27, 2024	National	100
8.	Prof. Ranjan Tamuli, Organizer	DNA, chromosomes, genotypes, phenotypes, and the mighty Brahmaputra	Indian Academy of Sciences, Bangalore	04.10.2024	National	~50
9.	Prof. Ranjan Tamuli (Member, Organizing Committee)	India International Science Festival (IISF) 2024	Government of India	30.11.2024 to 03.12.2024	International	Over 15000

AWARDS AND HONOURS

- Prof. Ajaikumar B. Kunnumakkara; Highly ranked scholar,ScholarGPS
- Prof. Ajaikumar B. Kunnumakkara; Biology and Biochemistry leader award, 2024,Research.com
- Prof. Ajaikumar B. Kunnumakkara; Best scientist in the country area: Biological sciences,AD Scientific index
- Prof. Arun Goyal; Distinguished Scientist Award 2024,International Bioprocessing Association (IBA), Hong Kong, PR China
- Prof. Arun Goyal; Elected Fellow, (FACCTI), December 4, 2024. ,Association of Carbohydrate Chemists and Technologists of India (ACCTI), Gauhati University Assam, India
- Prof. Arun Goyal; Elected Fellow, (FSEES), December 14, 2024, International Society of Energy, Enviroment and Sustainability (ISEES), IIT Mandi, India
- Dr. Kusum Kumari Singh; FASEB's SRC Award,FASEB's 2024 Science Research Conferences
- Souptick Chanda; Editorial Board Member,Scientific Reports
- Dr. Shirisha Nagotu; Mid-career Lady Gerontologist Award by the Association of Gerontology India,21st Biennial International Conference of AGI 2024 on Elderly Empowerment & Graceful Ageing Conference, Association of Gerontology, India
- Prof. Utpal Bora; Appointed as Adjunct Professor,University of Chittagong

STUDENTS' ACHIEVEMENTS

- Ms. Anjana Sajeev;DAILAB PRIME CAFÉ PLUS 2024,Advanced Industrial Science and Technology, Japan
- Mr. Aviral Kumar;Foreign travel grant,CSIR
- Mr. Aviral Kumar;ISSMART,Asian Federation of biotechnology

- Ms. Bintee;3rd International Conference of Biological Science (ICOBIOS) 2024,Universitas Brawijaya, Indonesia
- Ms. Bintee;DAILAB PRIME CAFÉ PLUS 2024,Advanced Industrial Science and Technology, Japan
- Ms. Anjana Sajeev;DAILAB PRIME CAFÉ PLUS 2024,Advanced Industrial Science and Technology, Japan
- Ashwani Kumar Verma;Best Paper Award,At IX International Conference on Sustainable Energy and Environmental Challenges, IIT Mandi, Himachal Pradesh, India
- Bipasha Choudhury;Best Paper Award,At IX International Conference on Sustainable Energy and Environmental Challenges, IIT Mandi, Himachal Pradesh, India
- Madhulika Shrivastava;Best Paper Award,At IX International Conference on Sustainable Energy and Environmental Challenges, IIT Mandi, Himachal Pradesh, India
- Annu Anand;Best Poster presentation award,At CARBO-XXXVIII: International Conference on "Recent Advances in Glycoscience and Glycotechnology", Gauhati University, Guwahati, assam, India
- Yumnam Robinson Singh;ANRF (formerly SERB) International Travel Grant,At the International Conference on Advanced Bioprocessing Technologies for Biomass Conversion- Sustainability and Bioresource Management (IBA-IFIBIOP XI, 2024) held at Hong Kong, China
- Sweta Kumari;EMBL Corporate Partnership Programme fee waiver,EMBL, 2025
- Ayushi Rehman;EMBL Corporate Partnership Programme travel grant,EMBL, 2025
- Ayushi Rehman;ITS-ANRF ,ANRF, 2025
- Ayushi Rehman;,EMBO, 2024
- Priyanka Yadav;,EMBO, 2024
- Ms. Shilpa Nandi;Conference: Environment 2024 (Session theme: Environmental Biotechnology),Indian Institute of Technology Guwahati, Assam
- Ms. Jaya Bharti Singh;International Conference on Unraveling Indian Knowledge Across Asia ,Indian Institute of Technology Guwahati, Assam
- Mr. Soumyajit Das;International Conference on Unraveling Indian Knowledge Across Asia ,Indian Institute of Technology Guwahati, Assam
- Ms. Prattusha Khan;Best poster presentation award,IIT Guwahati
- Ms. Pratibha Koundal;Best poster presentation award,Birla Institute of Technology, Mesra, Ranchi
- Mr.Suraj Kumar, ;IEEE Student Travel award,https://ieeesmc2024.org/home
- Vishnu K.N, Doli Hazarika and Shivani Mittal (participated as a team);Research Pavilion Healthcare Award ,PIWOT 2025
- Vishnu K.N, Doli Hazarika and Shivani Mittal (participated as a team);Finalist ,BioNest 2025
- Mr. Krishna Kant Pachauri;Best oral presentation,BITS Pilani K K Birla Goa Campus, Goa
- Ms. Chetna Sharma;3rd position in poster presentation,BITS Pilani K K Birla Goa Campus, Goa
- Mr. Jaideep Singh Bhardwaj;Pratibha Samman,Aghariya community education encouragement committee
- Mr. Jaideep Singh Bhardwaj;Best Interactive Pavilion,India International Science Festival (IISF) 2024
- Mr. Jaideep Singh Bhardwaj;Research Podium (Winner),PanIIT World of Technology (PIWOT) Conference 2025
- Mr. Jaideep Singh Bhardwaj;Financial grant, International Travel Scheme,Anusandhan National Research Foundation (ANRF)
- Ms. Divya Saini;Student Intern (STEM Educator),IIT Guwahati, RAA (Rashtriya Avishkar Abhiyan), under the supervision of the Government. Of Assam
- Harish Kumar, Mohammed Askkar and Sulaiha Juvairiya;Vishwakarma Awards 2024,Maker Bhavan Foundation in association with iTIC, IIT Hyderabad

- Rakshita Mehta;New Generation Ideation Contest (NGIC-2024),Hindustan Petroleum (HPCL)
- Ajithkumar Veluchamy;Best Poster Presenter Award,IIT Madras
- Ragavan Chandrasekar;Best Oral Presenter Award,Banaras Hindu University
- Mr. Satyendu Nandy;3rd Best oral presentation Award at VIBCON 2024 conference,TANUVAS, Chennai
- Mr. Nilave Ranjan Bora;1st Best oral presentation Award at 5th International Conference on Contemporary Antimicrobial Research, 2024,NEHU, Shillong
- Ms.Tanveera Sarhadi;Oral Talk Prize,Conference on Biomedical and Applied Clinical Sciences (BioMACS, 2025) at Woxsen University, Hyderabad, (25th-28th February, 2025), Association of Gerontology, India, (13th-15th December, 2024)
- Mr. Satyam;Vishwakarma Awards 2023,Organized by IIT Delhi & Makerbhawan Foundation
- Mr. Sonu S S ;Erasmus+ KA171 Academic Exchange Fellowship,Erasmus+ KA171 academic exchange program at Universitat Politècnica de València, Valencia, Spain
- Ms. Arisha Arora;Certificate of Achievement,RIC in Indian Institute of Technology Guwahati

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
1.	B. Anand	Indian Institute of Technology Kanpur, Kanpur	Professor	RNA Biology, CRISPR Biology, Ribosome Biogenesis
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	Indian Institute of Technology Kharagpur, India	Assistant Professor	Biomechanics, implant design and optimization, surgical simulations and application of soft computing/AI in allied fields
5.	Chaturvedi Rakhi	University of Delhi, India	Professor	Plant Tissue Culture & Secondary Metabolites Production
6.	Chaudhary Nitin	CSIR-Centre for the cellular and Molecular Biology, Hyderabad	Professor	Peptide self-assembly and amyloid aggregates, Peptide-membrane interactions Curvature inducing proteins
7.	Das Debasish	Indian Institute of Technology Bombay	Professor	Metabolic engineering, Biochemical engineering, Modelling of fermentation process, Biofuel
8.	Dasu V. Venkata	Indian Institute of Technology Madras	Professor	Bioprocess Development, Metabolic Engineering
9.	Ghosh Siddhartha S.	Indian Institute of Chemical Biology (IICB), Kolkata	Professor	Cancer Therapeutics, Nanobiotechnology, Molecular Pathways Involving Drug Resistance and EMT
10.	Goswami Pranab	Gauhati University	Professor	Biosensors and Biofuel cells
11.	Goyal Arun	Indian Institute of Technology Kanpur, Kanpur, India.	Professor	Structure and functional studies and applications of carbohydrate active enzymes

12.	Gupta Kapish	NUS Singapore	Assistant Professor	Toxicity Assay, Liver Mechanobiology, Cholestasis, Drug Testing, Biliary Atresia
13.	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
14.	Jaganathan Bithiah G.	Johann Wolfgang Goethe University, Frankfurt, Germany	Professor	Stem Cell Biology, Cancer signaling
15.	Kanaujia Shankar Prasad	Indian Institute of Science Bangalore	Professor	Structural Biology and Bioinformatics Studies
16.	Kumar Manish	University of Maryland, College Park, USA	Professor	Investigating the molecular basis of host–pathogen interactions in infectious diseases, with a focus on spirochetes-Leptospira interrogans and Borrelia burgdorferi. Key areas include gene expression profiling, vaccine development targeting outer membrane proteins, and the study of vector-borne zoonotic diseases with public health relevance
17.	Kumar Sachin	University of Maryland, College Park, USA	Professor	Molecular biology of paramyxoviruses, flaviviruses
18.	Kunnumakkara A. B.	Amala Cancer Research Center, Thrissur, Kerala, India, 2005 University of Calicut, Kerala	Professor	Role of inflammatory pathways in cancer development, Identification of novel biomarkers for cancer diagnosis and prognosis, Cancer drug discovery.
19.	Limaye Anil Mukund	Indian Institute of Science Bangalore	Associate Professor	Hormonal regulation of gene expression
20.	Maiti Soumen Kumar	Indian Institute of Technology Bombay	Associate Professor	Bioprocess Engg, Biofuel
21.	Mandal Biman B	Indian Institute of Technology Kharagpur	Professor	Regenerative Medicine, Biomaterials, Tissue Engineering, Stem Cells
22.	Nagotu Shirisha	University of Groningen, the Netherlands	Assistant Professor	Cell biology, Organelle biology, Cellular Ageing, Membrane dynamics
23.	Pakshirajan Kannan	IIT Madras	Professor	Environmental Biotechnology
24.	Pandey Lalit Mohan	Indian Institute of Technology Delhi	Associate Professor	Bio-interfaces and Biomaterials, Protein's adsorption and aggregation, Nanomaterials and composites for Biomedical applications, Environmental Chemical Engineering.
25.	Patra Sanjukta	Central Food Technological Research Institute, Mysore	Professor	Enzyme and Microbial Technology Environmental Biotechnology Diagnosis and therapeutics
26.	Ramakrishnan Vibin	Indian Institute of Technology Bombay	Professor	Network medicine, Bio-Nano catalysis, Drug delivery vehicles
27.	Rangan Latha	University of Madras	Professor	Applied Biodiversity

28.	Sahoo Lingaraj	Maharshi Dayanand University, Rohtak, India	Professor	Plant Molecular Biology
29.	Saini Gurvinder Kaur	Andhra University, Visakhapatnam	Professor	Fungal Biotechnology, Engineering entomopathogenic fungi
30.	Satpati Priyadarshi	Indian Institute of Science Bangalore	Associate Professor	Classical molecular dynamics (MD) free energy simulation, Electronic Structure calculations that predict the structure, properties, reactivity, bonding etc. of small molecules
31.	Selvaraju Narayanasamy	Indian Institute of Technology Madras, India	Associate Professor	Environmental Biotechnology, Wastewater remediation, Microbial Biodiesel production, Advanced Oxidation Process
32.	Senthilkumar S	Central Leather Research Institute, Chennai	Professor	Bioprocess Analytical Technology (BioPAT), Metabolic Engineering
33.	Singh Himanshu	Tata Institute of Fundamental research (TIFR) Mumbai	Assistant Professor	Chemical Biology, Biophysical Chemistry, Molecular Biophysics, Structural Biology, and Biomolecular NMR Spectroscopy and Applications
34.	Singh Kusum K	Institute of Molecular Medicine, Heinrich-Heine University of Duesseldorf, Germany	Assistant Professor	Genome Editing, Alternative Splicing; Prediction of splicing using neural network; Regulation of gene expression; functions of mRNA-binding proteins (mRNPs) in isoform switching; implications in diseases.
35.	Swaminathan Rajaram	Tata Institute of Fundamental Research	Professor	Proteins, Spectroscopy, Biochemistry
36.	Tamuli Ranjan	Centre for Cellular and Molecular Biology, Hyderabad	Professor	Fungal biology, genetics, molecular biology, cell signaling, banana fiber, rice
37.	Thummer Rajkumar P	University of Groningen, Groningen, The Netherlands	Assistant Professor	Stem Cell Engineering and Regenerative Medicine
38.	Trivedi Vishal	Central Drug Research Institute, Lucknow	Professor	Intracellular Signaling in Plasmodium falciparum

Chemical Engineering

YEAR OF ESTABLISHMENT OF THE DEPARTMENT: 2002

ACADEMIC PROGRAMMES OFFERED:

- Bachelor of Technology (B. Tech)
  - Chemical Engineering
- Master of Technology (M. Tech)
  - Petroleum Science and Technology (PST)
  - Material Science and Technology (MST)
  - Computer Aided Process Engineering (CAPE)
  - Food Science and Technology (FST)
- Doctor of Philosophy (Ph. D)

LABORATORY FACILITIES

- **Undergraduate Laboratories (Total Number): 6**

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.

Mechanical Operation Lab

Ball Mill, Froth Floatation Cell, Hammer Mill, Roll Crusher, Plate and Frame Filtration, Rotary Drum Vacuum Filter, Vibrating Screen, Sieve Shaker, Cyclone Separator, Cyclone Scrubber, Elutriator, Sedimentation, Leaf Filter, RO membrane performance.

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.

Mass Transfer Lab

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, Fluidized bed dryer, Humidification and dehumidification setup.

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, Study of I-P and P-I Converter.

Reaction Engineering Lab

Packed bed reactor, Trickle bed reactor, RTD Studies in CSTR, RTD studies in plug flow reactor, Cascade CSTR, Spinning basket reactor, Isothermal batch reactor, RTD of Packed bed reactor, Combined flow reactor.

- **Postgraduate Laboratories (Total Numbers): 1**

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 (Total Numbers): 2**

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, High Pressure Thermo Gravimetric Analyser (HPTGA), Interfacial Rheometer, Karl Fisher Titrator, Laser Particle Size Analyser, Mercury Intrusion Porosimeter, Microscope, Microwave Assisted Reactor, Millipore Water Purification, Refractometer, Rheometer, Spinning drop Tensiometer, Tensiometer, Thermogravimetric Analyzer, Time Resolved Stereoscopic Particle Image Velocimetry (PIV), Total Organic Content Analyzer, UV-Visible Spectrophotometer, X-Ray Diffraction, Zeta Potential

CoE-SusPol

Centre of Excellence for Sustainable Polymers (CoE-SusPol) is funded by the 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 to establish state of the art facilities in biodegradable polymer areas. Both experimental and computational laboratory has been set up under this project facility and significant high-end equipments have been purchased in the department.

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Fluids

- Design and development of micro-pumps and actuators
- Enhanced oil recovery
- Experimental and computational fluid dynamics
- Experimental and computational multiphase flows
- Field driven fluid flows
- Mechanics, patterns, and stability of fluids
- Micro- and nano-fluidic devices
- Minerals processing
- Multi scale bubble dynamics and applications

- Rheology of complex fluids
- Transport through meso-porous materials

Reaction Engineering

- Catalysis electrolysis and Heterogeneous reactions
- Electrochemical corrosion
- Electroless plating
- Hydrocarbon processing
- Interfacial reactions
- Kinetic analysis
- Micro- and nano-fluidic reactors
- Non-equilibrium reactive systems
- Pyrolysis of waste plastics
- Separations with chemical reaction
- Sono-process engineering

Chemical Engineering Science

- Biological physics
- Chemical mechanical polishing (CMP)
- Colloids and interfacial science
- Dewetting and phase separation
- Phase equilibria and thermodynamics
- Phase equilibria of ionic liquids
- Phase transition in polymers (nucleation, crystallization, collapse transition)
- Structure property relations
- Super-hydrophobic and self-cleaning surfaces

Environmental Pollution Control

- Air pollution
- Biological wastewater treatment (biosorption, bioaccumulation, biodegradation, bioreduction, biotransformation)
- Electro remediation of water/wastewater
- Membrane bioreactors
- Physiochemical water/ wastewater treatment techniques
- Screening of novel microbial strains for treatment of organic/inorganic wastewater

- Sonolysis and sono-hybrid advanced oxidation techniques
- Treatment of industrial effluent
- Pollution trading

Process Systems Engineering

- Al based optimization techniques
- Computational transport processes
- Deterministic, evolutionary and global optimization
- Material processing
- MEMS & NEMS
- Molecular simulation
- Optimization and control
- Planning and scheduling
- Process control
- Process design & techno-economics
- Process intensifications
- Process modelling
- Randomized algorithms
- Self-assembly and self-organization
- Soft lithography
- Statistical mechanics and thermodynamics

Materials Engineering

- Bio-lubricant
- Complex organic solids
- Functional multiscale structures & composites
- Graphene synthesis and application
- Ionic liquids
- Liquid crystalline materials
- Low cost ceramic membranes
- Micro and nano sensors
- Non Newtonian fluids
- Palladium membranes

- Reactive systems and gels
- Responsive materials for environmental, biological and chemical separation
- Self-healing surfaces
- C-C composites and C-Polymer composites

Polymer Science and Engineering

- Polymers synthesis and characterization
- Polymer reaction engineering
- Polymer processing
- Polymer rheology
- Polymer solutions and thermodynamics
- Polymer simulation and computing
- Polymer based nano and bio composites
- Polymer degradation
- Polymer and nano-material migration studies
- Polymer recycling and reuses
- Biodegradable polymers
- Polymer based technology development, licensing, training and entrepreneurship
- Biodegradable polymers and bio based nanocomposites

Energy Engineering

- Artificial photosynthesis
- Biofuels: biodiesel, bioethanol, bio butanol, bio hydrogen and bio oil
- Biomass gasification and pyrolysis
- Carbon dioxide capture and conversion to fuel
- Clean coal technology
- Combustion and gasification reaction kinetics
- Fischer-Tropsch synthesis
- Fuel cells
- Hydrogen production and storage
- Utilisation of lignocellulosic biomass for fuel/chemicals
- Solar cells
- Nuclear reactor

- Membrane reformer for hydrogen production

Separation and Mixing Processes

- Adsorption
- Bio-separation
- Membrane separation processes
- Micro-mixers & separators
- Post CMP cleaning
- Separation using supercritical fluids
- Surfactant mediated separation processes

Food Science and Technology

- Food Processing
- Food packaging
- Membrane technology based juice processing
- Drying technologies (RWD, Tray and Oven) for food product development from North-East horticulture resources
- Microwave assisted food processing
- Functional foods
- Extraction of bioactive compounds and their applications in food product development
- Nutritionally rich low cost food products

MAJOR INITIATIVES AND BREAKTHROUGHS IN RESEARCH AND DEVELOPMENT

- Prof. Dipankar Bandyopadhyay, Department of Chemical Engineering and Jyoti and Bhupat Mehta School of Health Sciences and Technology, and his team of researchers, Shri Sahil Jagnani and Shri Ankit Chowdhury, has received the Best Extramural Innovation award by ICMR. This was awarded on November 14, 2024, during the DHR-ICMR Health Research Excellence Summit 2024, for their innovation, Mobilab, a Nanotechnology based affordable, portable and easy to use multi diagnostic point-of-care device for Kidney, Liver, Heart, and Pancreas disorders.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: INTERNATIONAL, NATIONAL

Sl. No.	Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
1	Koushik Jena, Prabu Vairakannu,	Impact of microwave drying on sprouted little millet flour, 30th Indian Convention of Food	DY Patil Deemed to Be University, Sector-7,	19-21st December 2024	

	Siddhartha Singha	Scientists & Technologists (ICFoST), Food Safety, Standards, Security and Sustainability, FoodSSSS,'	Nerul, Navi Mumbai		
2	Koushik Jena., Prabu Vairakannu, Siddhartha Singha	Impact of microwave drying on the structural changes in malted little millet, International Conference on Emerging Technologies in Food Processing-IV	Ghani Khan Choudhury Institute of Engineering and Technology, Malda, West Bengal-732141	18-19th November 2024	International
3	Koushik Jena, Prabu Vairakannu, Siddhartha Singha	Energy and Exergy analyses on Microwave drying of little millets, Sustainable Development in Applied Science, Engineering and Technology (SDASET 2024), 4th International Convention on Green Environment, Technology & Entrepreneurship through Innovation (ICGETEI 2024)	Amity University, Rajasthan-303002	11-13th September 2024	International
4	Rushabh Kale, Prabu Vairakannu, Prasanna Venkatesh Rajaraman	Ionic liquid-derived eutectic solvent as additives in alkaline electrolytes for hydrogen production via electrolysis, 9th Green and Sustainable Chemistry Conference	CSIR-NCL Pune, Maharashtra, India, [2025]	4-6 March 2025	
5	Pathak, S.J., Prabu Vairakannu	Co-liquefaction Study of E-waste Plastics and Waste Biomass for Liquid Fuel Production, International Conference on Sustainable Energy and Environment (ICSEE) 2025	BITS Pilani K K Birla Goa campus, India	8-10 March 2025.	International
6	Srijita De, Saurabh Dubey, and Dipankar Bandyopadhyay	Study of Gold nanoparticle-induced changes in Liquid Crystal Alignment, Frontiers in Nano-Sciences 2024 (FINS 2024)	IIT Guwahati, Assam, India	1-2 November 2024	

7	Saurabh Dubey, Srijita De, Omkar S. Deshmukh, and Dipankar Bandyopadhyay	Surface Instability and Fragmentation: Pathways for Microplastic Release from Polymers in Hot Fluid Exposure, Poster presentation, Frontiers in Nano-Sciences 2024 (FINS 2024)	IIT Guwahati, Assam, India	1-2 November 2024	
8	Rahul Deka, Sanbed Das, Nayanjyoti Kakati, Dipankar Bandyopadhyay	Microrheological profiling of cross-linked hyaluronic acid structures, Frontiers in Nano Sciences, FINS'24	IIT Guwahati, Guwahati-781039, Assam, India	1-2 November 2024	
9	N. Kakati, D. Bandyopadhyay	Microrheology of Biofluid in Healthcare Applications, FINS-2024	IIT Guwahati, Assam, India	1-2 November 2024	
10	Vinod Vanarse, Siddharth Thakur, and Dipankar Bandyopadhyay	Curvature, Flow, and Miniaturization: A Nematic Droplet's Journey on Water, IRN-CNRS, Hydrbio	IIT Madras	2024	
11	Tanusree Ghoshal, Prathu Raja Parmar, Dipankar Bandyopadhyay	A Colorimetric Assay for the Rapid, Point-of-Care Assessment of Pancreatic Health, Smart Materials for Sustainable Technologies (SMST) 2024	INST Mohali, Sahibzada Ajit Singh Nagar, Punjab-140306, India	24-28 October 2024	
12	Musaddique M. Ahmed, Debashreeta Singha, Aman Paul, Ananya Pandey and Dipankar Bandyopadhyay	Functionalized Gold Nanostars for Enhanced Biosensing in Cervical Cancer Detection, CRSI-ACS Early Career Researchers' Symposium 2024	KIIT University, Campus-11, Bhubaneswar-751024, Odisha, India	22-23 October 2024	
13	Debashreeta Singha, Musaddique Mahfuz Ahmed, Kumari Tejaswini, Saurabh Dubey, Aman Paul and	Innovative Microfluidic Separation Systems in Healthcare, CRSI-ACS Early Career Researchers' Symposium 2024	Campus-11, KIIT University, Bhubaneswar-751024, Odisha, India	22-24 October 2024	

	Dipankar Bandyopadhyay				
14	Srijita De, Saurabh Dubey, Arijit Mohanta, and Dipankar Bandyopadhyay	Investigating Electrohydrodynamic Forces and Interfacial Dynamics in Droplet Manipulation within Microfluidic Channels, Research & Industrial Conclave-Integration (RIC)	IIT Guwahati	9-11 August 2024	
15	Tanusree Ghoshal, Prathu Raja Parmar, Sagnik Middya, Mitra Dipankar Bhattacharjee, Dipankar Bandyopadhyay	A Colorimetric Emulsion for the assessment of Pancreatic Health, Research and Industrial Conclave	IIT Guwahati, Guwahati, Assam-781039, India	9-11 August 2024	
16	Musaddique M. Ahmed, Mitali Basak, Debashreeta Singha, Aman Paul, and Dipankar Bandyopadhyay	Synthesis of gold nanostructure and its application in biosensing, Research and Industrial Conclave	IIT Guwahati, Guwahati-781039, Assam, India	9-11 August 2024	
17	Saurabh Dubey, Srijita De, Sanbed Das, Omkar S. Deshmukh, and Dipankar Bandyopadhyay	Surface Energy Interplay and Solvent Dynamics Induced Labyrinth Patterns of Toluene on Cured PDMS Films, Poster Presentation, Research & Industrial Conclave-Integration (RIC)	IIT Guwahati	9-11 Aug 2024	
18	Debashreeta Singha, Musaddique Mahfuz Ahmed, Aman Paul, Saurabh Dubey and Dipankar Bandyopadhyay	Separation of microparticles in a pillar-embedded microchannel, Research and Industrial Conclave	IIT Guwahati, Guwahati-781039, Assam, India	9-11 August 2024	
19	Rahul Deka, Shubham Sanjay Agrawal,	Microrheology of Cancer Microenvironment using Multiple Particle Tracking	IIT Guwahati, Guwahati-	9-11 August 2024	

	Nayanjyoti Kakati, Dipankar Bandyopadhyay	(MPT), Research and Industrial Conclave, RIC'24	781039, Assam, India		
20	Zakia Farhat, Arijit Mohanta, Prathu Raja Parmar, Yeshudan Bora, Nafisa Arfa, Dipankar Bandyopadhyay	A Continuous Flow Bioezymatic Synthesis of Gold Nanoparticles with Diastase in Microfluidic System, Research and Industrial Conclave 2024	IIT Guwahati, Guwahati-781039, Assam	9-11 August 2024	
21	Arijit Mohanta, Zakia Farhat, Prathu Raja Parmar, Yeshudan Bora, Saurabh Dubey, Nafisa Arfa, Dipankar Bandyopadhyay	Rapid and Cost-Effective In situ Fabrication of Nanoporous Membranes in Microfluidic Devices for Biomedical and Environmental Applications, Research and Industrial Conclave (RIC) – 2024	IIT Guwahati, Guwahati - 781039, Assam, India	9-11 August 2024	
22	Vinod Vanarse, Tapas Kumar Mandal, & Dipankar Bandyopadhyay.	Coupled Instability Fostered Mesoscale Sunflowers in Porous Medium. Bifurcations and instabilities in fluid dynamics (BIFD-24)	University of Edinburgh, Scotland, UK-2024	24-28 June 2024	
23	Srijita De, Saurabh Dubey, and Dipankar Bandyopadhyay	Study of Force Dynamics: Generation of Strider-like Droplets at Liquid-Liquid Interface, Indian Nanoelectronics Users' Programme – Idea to Innovation (INUP)	IIT Guwahati, offline, Poster Presentation	8-10 April 2024	
24	Rahul Deka, Shubham Sanjay Agrawal, Nayanjyoti Kakati, Dipankar Bandyopadhyay	Microrheology of Cancer Microenvironment using Multiple Particle Tracking (MPT), Indian Nanoelectronics Users' Programme Idea to Innovation, iNUPi2i	IIT Guwahati, Guwahati-781039, Assam, India	8-10 April 2024	
25	Stuti Dubey, Subrata Kumar Majumder	International Conference on Petroleum, Hydrogen, and Decarbonization	IIT (ISM) Dhanbad	12-14 December 2024	International

26	Stuti Dubey, Subrata Kumar Majumder	Research and Industrial Conclave-Integration'24	IIT Guwahati	9-11 August 2024	National
27	Stuti Dubey, Subrata Kumar Majumder	Environment 2024 (An International Conference on Environmental Challenges, Opportunities, and Sustainable Solutions)	IIT Guwahati	9-11 December 2024	International
28	Ashutosh Singh, Subrata Kumar Majumder	Research and Industrial Conclave-Integration'24	IIT Guwahati	9-11 August 2024	National
29	Ashutosh Singh, Subrata Kumar Majumder	Environment 2024 (An International Conference on Environmental Challenges, Opportunities, and Sustainable Solutions)	IIT Guwahati	9-11 December 2024	International
30	Ashutosh Singh, Subrata Kumar Majumder	Recycle 5^{th} (An International Conference on Waste Management)	IIT Guwahati	5-6 June 2025	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Sl. No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
1	Prof. Dipankar Bandyopadhyay	Self-Organization of Micro/Nano Plastics	FINS IIT Guwahati	IIT Guwahati	October 2024
2	Prof. Dipankar Bandyopadhyay	Genesis of a Dream: Health Care Technologies for a Billion	CIHSR Nagaland	Nagaland	April 2024
3	Prof. Dipankar Bandyopadhyay	Self-Organization of Triphasic Flows into Metastable Fluid Patterns	ICEM 2024	IIT Madras	October 2024
4	Prof. Dipankar Bandyopadhyay	Art of Flu-Mech @ Mesoscale	Karpagam Academy of Higher Education, Coimbatore	Coimbatore	October 2024

5	Prof. Animes Kumar Golder	Nature-inspired Nanomaterials for Environmental Applications, Online short-term course (e-STC), Sustainable Developments in Chemical and Biochemical Processes	National Institute of Technology, Hamirpur	Hamirpur, Himachal Pradesh	11-15 April 2024

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. Animes Kumar Golder	International Conference on Environmental Challenges, Opportunities & Sustainable Solutions (ENVIRONMENT 2024)	Centre for the Environment, Indian Institute of Technology Guwahati	09 -11 December2024	International	
2	Prof. Animes Kumar Golder	One-Day Symposium on Environmental Challenges, Opportunities & Sustainable Solutions (World Environment Day) - 2024	Centre for the Environment, Indian Institute of Technology Guwahati	05 June 2024	National	
3	Prof. Kaustubha Mohanty	4th PyroAsia 2024	Indian Institute of Technology Guwahati	28-29 November 2024	National	
4	Prof. Kaustubha Mohanty	2nd International Symposium on Advances in Algal Research	Indian Institute of Technology Guwahati	17-18 December 2024	International	

5	Prof. Subrata Kumar Majumder	Green Sustainable Hydrogen from Methane in Molten-metal Slurry Bubble Column Reactor (3 Workshop on progresses in Gasification Technology collaboration with SERBPhase fluidized bed),	IIT Guwahati	19-20 Dec., 2024		

AWARDS AND HONOURS

- Prof. Dipankar Bandyopadhyay: Best Extramural Innovation award, Indian Council of Medical Research (DHR-ICMR) - Health Research Excellence Summit 2024
- Prof. Dipankar Bandyopadhyay: TIECon Top 50, The IndUS Entrepreneurs
- Prof. Animes Kumar Golder: Conference Chair, Centre for the Environment, Indian Institute of Technology Guwahati
- Prof. Animes Kumar Golder: Symposium Chair, Centre for the Environment, Indian Institute of Technology Guwahati
- Prof. Nanda Kishore: Associate Editor, Frontiers in Energy Research Journal (Advanced Clean Fuel Technologies section)
- Prof. Nanda Kishore: Fellow, *Fellow* of Telangana Academy of Sciences, Telangana, India
- Prof. Kaustubha Mohanty: Advisory Board, ACS ES&T Water and Journal of Analytical and Applied Pyrolysis (Elsevier)

STUDENTS ACHIEVEMENTS

- Chandra Bhan: First Place in SCIENTIFIQUE: Oral Presentation (Chemical) award In Research & Industrial Conclave (RIC) – 2024, IIT Guwahati
- Ravi: First Place In SCIENTIFIQUE: ORAL PRESENTATION (Environment) In Research & Industrial Conclave (RIC) – 2024, IIT Guwahati
- Ravi: First place in poster presentation in the symposium on environmental challenges, opportunities and sustainable solutions 2024, Centre for The Environment, IIT Guwahati

FACULTY MEMBERS

Sl. No.	Name	Name of the University/ Institute /Org PhD degree received from	Designation	Areas of Interest
1	Anandalakshmi R.	IIT Madras	Associate Professor	Computational Heat Transfer and Fluid Flow, Process Modelling and Simulation, Solar Thermal Energy Conversion, Energy Efficient Design of Thermal Systems
2	Bandyopadhyay Dipankar	IIT Kanpur	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	Das Chandan	IIT Kharagpur	Professor	Wastewater Treatment, Bioremediation, Membrane based Separation Process

5	Dasmahapatra Ashok Kumar	IIT Bombay	Professor	Complex fluids, Phase transition in polymers (Nucleation, crystallization, collapse transition, etc.), Structure-property relations, Molecular simulations, Biological physics
6	De Mahuya	IIT Kanpur	Professor	Catalysis and reaction engineering, adsorption, hydrocarbon processing
7	Deshmukh Omkar Suresh	University of Twente, Netherlands	Assistant Professor	Colloids & Interfaces, Flow of Complex fluids, Polymer Dynamics, Glassy systems, Food oral processing, Food Physics, Bio-materials, Biophysics.
8	Ghosh Pallab	IIT Bombay	Professor	Interfacial phenomena, Interfacial reactions, Membrane separation, Randomised algorithms
9	Ghoshal Aloke Kumar	IIT Kharagpur	Professor	Advanced Separation Technology, Modelling & Simulation, Environmental Pollution Control, Pyrolysis of waste plastics
10	Ghoshal Debjit	Rensselaer Polytechnic Institute, USA	Assistant Professor	Semiconductor thin films, 2D materials, Optoelectronics, Vapor Phase Epitaxy
11	Gooh Pattader Partho Sarathi	Lehigh University	Associate Professor	Stochastic dynamics, Colloid and Interface science, Tribology, Soft matter
12	Golder Animes Kr.	IIT Kharagpur	Professor	Photocatalytic water treatment and water-splitting; Nanoparticles for water purification and sensor development; Electro-and bio-remediation of heavy metals; Advanced oxidation processes; Physiochemical water treatment techniques; CO2 reduction
13	Goud Vaibhav V.	IIT Kharagpur	Professor	Heterogeneous Reactions, Bio-energy and Green Engineering, Biolubricant, Utilisation of Lignocellulosic Biomass for Fuel/Chemicals, Supercritical Fluids
14	Gupta Raghvendra	The University of Sydney, Australia	Professor	Biofluid Mechanics, Multiphase Flows, Microfluidics, Experimental and computational fluid dynamics
15	Kakati Abhijit	Indian Institute of Technology Madras	Assistant Professor	Rock-fluid interaction; Chemical enhanced oil recovery, Smart water flooding, Geo-storage of CO2
16	Katiyar Vimal	IIT Bombay	Professor	Synthetic and Natural Polymers, Polymer Processing, Biothermoset, Nanobiocomposite, Organic Solar Cells, Biodegradable Polymers, Energy
17	Kishore Nanda	IIT Kanpur	Professor	Biofuels (Experimental and Computational Studies), Density Functional Theory Applied to Biofuels, Computational Transport Phenomena of Bubbles, Drops and Particles, Transport Phenomena of Non-Newtonian Fluids
18	Kotecha Prakash	IIT Bombay	Professor	Optimization, Process Control, Artificial Intelligence, Planning and Scheduling
19	Kumar Amit	University of Delaware, USA	Professor	Polymers and Polymer Nanocomposites, Molecular Modelling and Simulation, Gas Separation in Porous Materials
20	Kumar Sumit	ISM Dhanbad	Assistant Professor	Flow through porous media, Modelling and Simulation, Adsorption, Pyrolysis, EOR
21	Mandal Bishnnupada	IIT Kharagpur	Professor	Separations with chemical reaction, Molecular based membrane separation, Modelling and simulation of separation processes, Environmental pollution control
22	Mandal Tapas K	IIT Kharagpur	Professor	Multiphase flow & Measurement in multiphase flow, Bio-diesel
23	Majumder Subrata Kumar	IIT Kharagpur	Professor& Head of the Department	Petroleum Science & Technology, Multiphase flow and reactor development, Hydrodynamics in multiphase flow, Mineral processing, Process intensifications, Micro-nano bubble science and technology and its applications, Waste water treatment, Microchannel-based extraction, Jet driven gas-aided extraction
24	Mohanty Kaustubha	IIT Kharagpur	Professor	Biofuels, Biomass pyrolysis, Biological wastewater treatment, Heterogeneous catalysis, Microalgae bio refinery, Membrane based separations, Ionic liquid based separations, Waste management.
25	Moholkar Vijay S.	University of Twente, Netherlands	Professor	Bubble dynamics, CFD, Sono-process engineering, Bio-mass gasification
26	Mukherjee Siddhartha	IIT Kharagpur	Assistant Professor	Microfluidics, Nanofluidics, Active matter, Complex fluids, Fluid-structure interaction

27	Peela Nageswara Rao	IIT Kanpur	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
28	Prabu Vairakannu	IIT Madras	Professor	Clean Coal Technology, Combustion and Gasification, Reaction kinetics
29	Pugazhenthi G.	IIT Kanpur	Professor	Membrane Separation, Polymer Nanocomposites, Nanomaterials, Catalysis & Refinery Processes
30	Purkait Mihir Kumar.	IIT Kharagpur	Professor	Membrane technology; Effluent treatment and waste management; Advanced separation processes; Catalysis; Nanoparticles and nano-composites; Bio-diesel; Bio-products, vegetable and fruit juice processing; CO_2 to products and liquid fuels.
31	Roy Shambojit	University of Colorado, USA	Assistant Professor	Drug delivery, Biomaterials, Cancer therapeutics, Protein engineering, Microscopy and Imaging
32	Saha Prabirkumar	IIT Madras	Professor	Process Modelling, Optimisation and control, Membrane Based separation Process
33	Senthilmurugan S	IIT Delhi	Professor	Modelling 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
34	Singh Anugrah	IISc Bangalore	Professor	Computational and Experimental Fluid Dynamics, Microfluidics/Nanofluidic, Material Processing, Flow through Porous Media
35	Tiwari Pankaj	University of Utah, Salt Lake City, UT, USA	Professor	Conventional and unconventional energies, Reservoir Engineering, Complex organic solids, Biomass conversion, Pyrolysis process, Kinetic analysis
36	Uppaluri Ramgopal V. S.	University of Manchester, United Kingdom	Professor	Process Engineering – Solar pumps; Process-product engineering – Rural concrete applications of agricultural waste; Value-added and Low-cost food and functional food products; Product Design – Ayurvedic and Horticultural products; Waste to value products; Computational – AI & ML based studies of greenhouse gas emissions and food science and technology data systems; Indian knowledge systems – Internal Security studies; Spirituality & Digital Media; Environmental Ethics; Vedanta and Science, Consciousness studies
37	Venkatesh R. Prasanna	IIT Madras	Associate Professor	Electrochemistry, Chemical Mechanical Polishing (CMP), Post CMP cleaning, Refinery Processes

Chemistry

Year of Establishment of the Department /Centre: 1995

Academic Programmes Offered:

(i) B. Tech. Core (Theory and Laboratory) and Elective courses in Chemistry

(ii) B. Tech. in Chemical Science & Technology

(iii) M. Sc in Chemistry

(iv) Ph. D

LABORATORY FACILITIES:

No. of Laboratories with brief introduction:

Sr. 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	3840 (Each one 80 average)	White board, computers, internet, phone, Fume hoods, 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 (Milliipore) water Lab	01	50	AC

MAJOR EQUIPMENT AND FACILITIES ACQUIRED (1 APRIL 2024– 31 MARCH 2025):

(1) High Purity Nitrogen Generator, Genius 1053
Model: 10-9561, Make : Peak Scientific
(2) Evident (Prior Olympus) Stereo-Zoom Microscope with CCD Camera, Model: SXX7, Make: Olympus

(3) High Pressure & BET-Surface Area Analyzer, Make: Microtrac BEL Japan, Model: Belsorp MINI X

(4) ASTM Type I & Type II water purification system
Make : Merck , Model : Elix essentials Milli QEQ700

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, Drug Delivery, Open Microfluidics, Chemical Sensor, Organofluorine Chemistry, Development of Catalysts for Electrochemical CO_2 Reduction; Synthesis of MRI Contrast Agents; Homogeneous Bio-inspired Catalysis; Spintronic Materials for Artificial Intelligence etc.

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT (1 APRIL 2024– 31 MARCH 2025):

Major Initiatives in R&D:

In the recent past, the faculties have developed novel methods for the construction of diverse organic molecules those are of important in biological and medicinal sciences, 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. Few faculties have also developed of novel materials for water harvesting, new catalysts to transfer waste to chemicals and several polypeptides which are important in drug delivery and nanotechnology. Some of the faculties and their research teams have designed and developed novel approaches for the development drugs for misfolding diseases, such as Alzheimer's disease (AD) and Parkinson's disease etc. Few faculties are engaged in the development of atom economic routes for the construction of novel molecules which are important in pharmaceuticals, materials chemistry such as construction of devices etc. Several metal-organic frameworks and their composites have been developed as handy, in-expensive sensors for the on-site fluorescence based chemical sensing of biologically important analytes, pesticides, drug molecules, metal ions and biomarkers which will be beneficial for food safety and human health through fluorescence based real-time monitoring of environmental pollution. Several metal-organic framework based heterogeneous catalysts with high activity have been developed for various organic transformations and atmospheric CO_2 fixation. Few colleagues have involved in the development of fluorine-free novel metal-organic framework as well as polymer based composites for the highly efficient separation of oils from oil/water mixtures and emulsions with high adsorption capacity, separation efficiency and great recyclability. Some colleagues have developed new organometallic catalysts, organocatalysts and electrocatalysts for asymmetric synthesis, organic transormations, water splitting reactions, etc. The faculties of the department have been continuing to work in these research areas for the betterment of society from environmental and economic points of view. The newly developed strategies and materials have been highly beneficial for academic research as well as chemical industries.

Breakthrough Innovations:

Salient Applications of the major research Innovations:

- Investigation of novel multifunctional organic co-crystals with enhanced properties for advanced technological applications by Prof Parameswar Krishnan Iyer's group
- Site-Selective C-H Bond Activation for the Construction of Medicinally Important Heterocyclic Scaffolds by Prof. T. Punniamurthy's group
- Prof. Chandan K. Jana's research program is engaged in developing new reactivity/methods, scalable and green synthetic strategies that will enrich the field of organic chemistry as well as provide means to affordable source to value-added chemicals, pharmaceuticals, organic materials, etc.
- Prof. Uttam Manna's research group have developed various functional interfaces and materials; For example, A rewritable and 'liquid-specific' recognizable wettability pattern is prepared for sorting of liquids having differences in surface tension.
- Researchers led by Prof. Dipankar Srimani, are actively engaged in developing earth-abundant, non-toxic transition metal complexes that exhibit enhanced stability and high efficiency for dehydrogenative C–C and C–heteroatom bond formation, aiding in the synthesis and diversification of heterocycles and carbocycles.

- Prof. Debapratim Das's research group describe an organohydrogel-based motion sensor with high stretchability, strength, and adhesiveness. The key behind the high stretchability while attaining significant mechanical strength is the use of a secondary chemical cross-linking within the polymeric network.
- Prof. A. S. Achalkumar and Dr. Paresh Kumar Behera designed a perylene bisimide (PBI) molecule with swallow tails at its imide positions, which can self-assemble to form room temperature columnar phase.
- Researchers at Indian Institute of Technology Guwahati, led by Dr Akshai Kumar A.S., have developed a catalyst that can release hydrogen gas from wood alcohol, with no side production of carbon dioxide. Beyond being an easy and environmentally safe process, the method produces formic acid which is a useful industrial chemical. This development makes methanol a promising 'Liquid Organic Hydrogen Carrier' (LOHC) and contributes to the concept of hydrogen-methanol economy.

Some more details of these impactful technologies/scientific outcome are mentioned below:

➢ *Investigation of novel multifunctional organic co-crystals with enhanced properties for advanced technological applications by Prof. Parameswar Krishnan Iyer's group:*

Organic charge transfer (CT) co-crystals have demonstrated remarkable physical properties thereby being applied in numerous fields. Yet their utility as a Surface-Enhanced Raman Spectroscopy substrate, a powerful and versatile analytical tool, has never been explored. Currently, a significant gap exists between plasmonic (metal-based substrate) and plasmon-free SERS substrates due to the higher enhancement factor (EF) and limit of detection (LOD) value offered by plasmonic substrates compared to the plasmon-free systems. Hence, it is imperative to introduce an organic SERS substrate characterized by a substantial EF and LOD values for the advancement of SERS based applications. In this work, a series of twisted purely hydrocarbon and heteroatoms containing donor molecules referred as DBF-ANT, DBF-CBZ, and DBF-PTZ, were designed and synthesized successfully. Unlike the former two chromophores, DBF-PTZ possessed multifunctional behavior and exhibited AIE, polymorphism, and MCL enabling the formation of unique CT co-crystals. A kinetically controlled binary co-assembly formation was obtained as DBF-PTZ/TCNQ from donor DBF-PTZ in the presence of TCNQ.

➢ *Site-Selective C-H Bond Activation for the Construction of Medicinally Important Heterocyclic Scaffolds by Prof. Tharmalingam Punniyamurthy's group:*

Regioselective C-H activation is the key technology for the functionalization and construction of medicinally important heterocyclic compounds. They provide effective route for the construction of selective carbon-carbon and carbon-heteroatom bond that are important in biological and medicinal sciences. Their group has been working in this area to develop synthetic strategies for the selective C-H activation and application to construct as well as functionalization heteroaromatic compounds. In addition, we focus on the stereoselective synthesis of heterocyclic compounds that are important in biological and pharmaceutical sciences.

The Pd and Rh-catalyzed cascade C-H/C-C activation and annulation of aliphatic amides and sulfoxonium ylides with vinyl cyclopropanes (VCPs) have been shown to produce pharmaceutically significant *γ*-lactam and tetralone structures respectively. Conversely, the Co-catalyzed C8-allylation of quinoline *N*-oxide, *ortho*-allylation of sulfoxonium ylides and Ru-catalyzed C4-allylation of indoles using VCPs have been reported to furnish diverse carbo-/hetero frameworks.

- *Prof. Chandan K. Jana's research program is engaged in developing new reactivity/methods, scalable and green synthetic strategies* that will enrich the field of organic chemistry as well as provide means to affordable source to value-added chemicals, pharmaceuticals, organic materials, etc. In the context of the medicinal value of organic molecules, we could synthesize and identify new natural product- like synthetic terpenoids and heterocyclic compounds possessing excellent anti-bacterial and anti-cancer activities with micro-to-nano-molar IC_{50} concentrations. These bioactive molecules can lead to further development of new therapeutic drugs against cancer and multi-drug-resistant bacteria.
- *Prof. Uttam Manna's research group have developed various functional interfaces and materials.* For example, A rewritable and 'liquid-specific' recognizable wettability pattern is prepared for sorting of liquids having differences in surface tension. A shape-reconfigurable omniphobic colloidosomes is also developed for droplet green chemistry. Moreover, we have introduced a highly water-rich robust coating for separating immiscible liquids mixtures of wide range of surface tension differences. An optically transparent solid slippery coating is developed for self-cleaning performance. The facility provided by DST-FIST at IIT Guwahati helped us to characterize prepared materials in our department—which allowed us to understand the mechanism behind the targeted properties of the prepared material.
- *Researchers led by Prof. Dipankar Srimani,* are actively engaged in developing earth-abundant, non-toxic transition metal complexes that exhibit enhanced stability and high efficiency for dehydrogenative C–C and C–heteroatom bond formation, aiding in the synthesis and diversification of heterocycles and carbocycles. By fine-tuning reaction parameters, our catalysts can shift between acceptorless dehydrogenation and borrowing hydrogen catalysis, allowing the creation of multiple products from the same reactants. Additionally, a deeper understanding of bond activation mechanisms enables us to optimize catalyst design for specific chemical processes in an environmentally sustainable manner. Their group aims to enhance the efficiency and sustainability of methanol activation processes through catalyst design, deeper comprehension of reaction mechanisms, and the integration of renewable energy sources to support environmentally friendly methanol production. Heterogeneous catalysts are robust and reusable, which contributes to cost-effectiveness over time. We are engaged in the development of metal fabricated heterogeneous catalysts designed for hydrogenation and dehydrogenation reactions. These catalysts hold promise for a wide array of industrial applications. Our group is actively involved in photoredox catalysis, using visible light to initiate chemical reactions. Our main goal is to harness visible light catalysis for discovering selective and efficient reactions, often leading to the development of innovative synthetic methodologies in organic chemistry. This work also facilitates the development of cost-effective metal complexes for hydrogenation, with

potential applications in plastic waste degradation. Furthermore, these complexes are proficient in activating CO_2 to form formate, enabling its use in various valuable transformations. Ultimately, this approach advances sustainable chemistry by reducing dependence on fossil-derived carbon sources.

- *Prof. Debapratim Das's research group describe an organohydrogel-based motion sensor with high stretchability, strength, and adhesiveness.* The key behind the high stretchability while attaining significant mechanical strength is the use of a secondary chemical cross-linking within the polymeric network. Two different chemical cross-linkers (N, N'-methylenebisacrylamide (MBAA) and diviylbenzene (DVB)) are used to construct the basic polymeric network. The chemical cross-linking is complemented by several physical crosslinks via hydrogen bonding and □□□ interactions that bestow the stretchable property. The transparent gel shows toughness (171 kPa), low modulus (≈ 45 kPa), as well as excellent stretchability (>1100%), low hysteresis, and self-healing ability. The use of water/glycerol as the gelling solvent helped in attaining anti-freezing properties as the gel showed no loss in properties even at -25 °C. As a conductive filler, phytic acid is used that not only provides excellent conductivity but also contributes to the physical cross-linking. The sensor showed excellent adhesive properties due to the presence of dopamine. Using this organohydrogel, a motion sensor was developed that showed state-independent properties, low detection limit (0.6% strain and 140 Pa), highly linear dependence, and excellent anti-fatigue performance (>100 cycles). Moreover, during the practical wearable sensing tests, human motions can be detected, including speaking, smiling, and joint movement. Additionally, the sensor was found to be biocompatible, indicating the potential applications for the next generation of epidermal sensors.
- *Prof. A. S. Achalkumar and Dr. Paresh Kumar Behera designed a perylene bisimide (PBI) molecule with swallow tails at its imide positions, which can self-assemble to form room temperature columnar phase.* In comparison to other PBIs, this molecule shows a very good fluorescence and when used in OLED, it shows higher external quantum efficiency (EQE), i.e. 7% than the theoretical EQE reported for fluorescent OLEDs, which is 5%. This unique tailor-made molecular design stabilizing liquid crystalline phase also used in the fabrication of organic field effect transistor demonstrating n-type field effect mobility of 0.008 $cm^2\ V^{-1}s^{-1}$, when annealed in the mesophase range, which can be exploited in the fabrication of printable electronic devices.
- *Significant research outcome of Prof. Anil Kumar Saikia's grpop:*

  1. Archana Chutia, Pallav Jyoti Arandhara, and Anil K. Saikia Synthesis of Highly ***π*-**Extended Dihydrobenzo[*a*]indenocarbazole Scaffolds via Tandem Benzannulation and Friedel−Crafts Reaction of 2**-**Alkynylanilines and 2**-**Alkynylbenzaldehydes Promoted by Lewis Acid *J. Org. Chem*. 2024, 89, 11542−11557.

2. Bikoshita Porashar, Bipin Kumar Behera, Hunmoina Phukon and Anil K. Saikia Synthesis of tetrahydroquinazolines from 2-aminobenzonitriles and alkylidene malonates via 1,4-conjugate addition and an unprecedented rearrangement reaction *Chem. Commun.*, 2024, 60, 4358.

3. Subhamoy Biswas, Surjya Kumar Bora, Pallav Jyoti Arandhara and Anil K. Saikia Regioselective synthesis of spiro quinazolinones via sequential hydroalkoxylation and intramolecular amide-cyclization of alkynol ureas *New J. Chem*., 2024, 48, 10756.

4. Surjya Kumar Bora, Subhamoy Biswas, Bipin Kumar Behera and Anil K. Saikia Stereoselective synthesis of gem-dihalopiperidines via the halo-aza-Prins cyclization reaction: access to piperidin-4-ones and pyridines *Org. Biomol. Chem*., 2024, 22, 3893–3903.

- *Researchers led by Dr. Akshai Kumar A.S., have developed a catalyst that can release hydrogen gas from wood alcohol, with no side production of carbon dioxide.* Beyond being an easy and environmentally safe process, the method produces formic acid which is a useful industrial chemical. This development makes methanol a promising 'Liquid Organic Hydrogen Carrier' (LOHC) and contributes to the concept of hydrogen-methanol economy.

  As the world is moving towards finding alternatives to fossil fuels, hydrogen gas continues to be the best source of clean energy generation. Currently, hydrogen is produced either by the electrochemical splitting of water or from bio-derived chemicals such as alcohol. In the latter method, hydrogen is typically produced from methyl alcohol (commonly called wood alcohol) using a catalyst, in a process called methanol reforming.

  There are two problems with the catalytic production of hydrogen from wood alcohol. The first is that the process involves high temperatures in the range of 300 ^{o}C and at high pressures (20 atmosphere). Secondly, the reaction co-produces carbon dioxide, which is agreenhouse gas. This is where the IIT Guwahati team has found a solution.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL

Sl. No.	Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
01	Prof. Chandan Mukherjee	Modern Trends in Inorganic Chemistry (MTIC-XXI)	Department of Chemistry, IIT Kharagpur, Kharagpur – 721302, West Bengal, INDIA	14-12-2024 to 17-01-2024	International
02	Prof. Chandan Mukherjee	National Conference of Society for Nitric Oxide and Allied Radicals	Department of Chemistry, IIT Roorkee, Roorkee – 247667, Uttarakhand, INDIA	21-02-2025 to 22-02-2025	National

03	Prof. T. Punniyamurthy	ICCMR-2025	Nagaland University	25-26/3/2025	International
04	Prof. T. Punniyamurthy	i-TOB 2025	Bharathidasan University	3-4/1/2025	International
05	Prof. T. Punniyamurthy	Chem 2024	IACS	27-29/01/2025	National
06	Prof. T. Punniyamurthy	SOS-2024	Berhampur University	20-21/12/2024	National
07	Prof. T. Punniyamurthy	ICRACER 2024	Jamal Mohamed College	18/12/2024	International
08	Prof. T. Punniyamurthy	NCCT 2024 and CACSRE 2024	Mizoram University	6/11/2024	National
09	Prof. T. Punniyamurthy	33rd CRSI-ACS Symposium	Reddy Laboratories	4-6/07/2024	National
10	Prof. T. Punniyamurthy	Workshop on Catalysis: A Key to a Sustainable Future	IIT Madras	21/06/2024	National
11	Prof Subhas Chandra Pan	ICOMC	Jaypee Palace Hotel and Convention Centre, Agra	14-18/07/2024	International
12	Prof Subhas Chandra Pan	Catalysis for Organic Synthesis	University of Vienna	31/07/2024-01/08/2024	International
13	Prof Subhas Chandra Pan	Rasayan 20	Vidyasagar University	16-17/12/2024	National
14	Prof Subhas Chandra Pan	International Conference on Chemistry for Human Development (ICCHD-2025)	University of Calcutta	04-06/01/2025	International
15	Prof Subhas Chandra Pan	34th National Symposium in Chemistry by CRSI	IISER Bhopal	07-09/02/2025	International
16	Prof. Debapratim Das	International Conference on Smart Materials for Sustainable Technology	INST Mohali	24-10-2024 – 27-10-2024	International
17	Prof. Achalkumar Ammathnadu Sudhakar	Columnar liquid crystalline materials based on perylene diesterimides and their application in organic electronic devices	Centre for Nano and Soft Matter Research (CeNS)	Bengaluru	10-11/01/2025
18	Prof. Achalkumar Ammathnadu Sudhakar	Columnar liquid crystalline materials for self-assembled organic semiconductors	IISER Kolkata	Kolkata	18/03/2025
19	Prof. Achalkumar Ammathnadu Sudhakar	Superior electron mobility, red electroluminescence with high quantum efficiency for printable room temperature liquid crystalline perylene bisimide	Centre for Nano and Soft Matter Research (CeNS)	Bengaluru	27-28/3/2024
20	Prof. Achalkumar Ammathnadu Sudhakar	Self-assembled liquid crystalline organic semiconductors based on perylene derivatives	Research and Industrial Conclave 2024	IIT Guwahati	9-11/8/2024
21	Prof. Achalkumar Ammathnadu Sudhakar	Molecular engineering of perylene derivatives towards the application in organic electronic devices	Recent Trends in Chemical Research	Assam University Silchar	20-24/8/2024

22	Prof. Achalkumar Ammathnadu Sudhakar	Design and Synthesis of Columnar Liquid Crystals for Organic Electronics	Texas A&M University, Doha, Qatar	Doha, Qatar	3-5/11/2024
23	Prof. Achalkumar Ammathnadu Sudhakar	Novel class of ambipolar columnar liquid crystals based on cyclic dipeptide and isatin hybrids	Navyug Science College	Surat, Gujarat	20-22/12/2024
24	Prof. Manabendra Sarma	Topics in Quantum Dynamics: Young Scientist Conclave	Indian Institute of Technology (IIT) Bombay, Mumbai, Maharashtra, India	15/07/2024 – 16/07/2024	National (Invited Talk)
25	Prof. Manabendra Sarma	Physical Chemistry Symposium – 2024 (SoPhyC-2024)	Indian Institute of Technology (IIT) Bombay, Mumbai, Maharashtra, India	22/10/2024 – 25/10/2024	National (Invited Talk)
26	Prof. Manabendra Sarma	Physics and Chemistry of Atomic, Molecular and Condensed Matter Systems – 2024 (PCAMC-2024)	Indian Institute of Science Education and Research (IISER) Kolkata, Mohanpur, India	11/12/2024 – 14/12/2024	National (Invited Talk)
27	Prof. Manabendra Sarma	Spectroscopy and Dynamics of Molecules and Clusters (SDMC) 2025	Mussoorie, Uttarakhand, India	20/02/2025 – 23/02/2025	National (Invited Talk)
28	Prof. Manabendra Sarma	International Conference on Frontiers in Chemical Sciences – 2025 (ICFCS-2025)	Central University of Jharkhand, Ranchi, Jharkhand, India	01/03/2025 – 03/03/2025	National (Plenary Talk)
29	Prof. Manabendra Sarma	Chem Convergence 2025: Advancing Chemistry Through Multidisciplinary Innovations	Madanapalle Institute of Technology & Science, Madanapalle, Andhra Pradesh, India	04/03/2025 – 07/03/2025	National (Plenary Talk)
30	Dr. Kingsuk Mahata	Frontiers in Chemical Sciences	IIT Guwahati	2/12/2025 to 4/12/2025	International
31	Dr. Samir Kumar Sarkar	MAIN-GROUP MOLECULES TO MATERIALS - 4 (MMM - 4) Title: Boron-Phosphorus Heterocyclic Ring Expansion via Small Molecule Activation, Chemical Reduction, and Halide Abstraction	IIT Bombay, Mumbai	9/02/2025 to 12/02/2025	International
32	Dr. Samir Kumar Sarkar	Modern Perspective of Advances in Chemical Science (MPACS) Conference 2024 Title: Carbene Stabilized NIR-Emissive Bis(9-Boraphenanthrene) and its Stable Biradical	Ramakrishna Mission Vidyamandira, Belur Math, Dist. Howrah-711202, West Bengal, India.	22/07/2024 To 23/07/2024	National
33	Dr. Samir Kumar Sarkar	30th International Conference on Organometallic Chemistry Title: Carbene Stabilized NIR-Emissive Bis(9-Boraphenanthrene) and its Stable Biradical	Jaypee Palace Hotel & Convention Centre, Fatehabad Rd, Tajganj, Tora, Uttar Pradesh 282004	14/07/2024 To 18/07/2024	International

34	Dr. Kalishankar Bhattacharyya	Physical Chemistry Symposium - 2024	Mumbai	22-10-24	National
35	Dr. Kalishankar Bhattacharyya	Advances in functional materials and applications"(AFMA – 2025)	Goa	20-2-2025	International
36	Dr. Kalishankar Bhattacharyya	10th Interdisciplinary Symposium on Materials Chemistry (ISMC-2024)	Mumbai	04-12-2024	National
37	Dr. Kalishankar Bhattacharyya	SRAPCR 2025	Kolkata	10-04-2025	National

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Sl. No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
01	Prof. Chandan Mukherjee	Modern Trends in Inorganic Chemistry (MTIC-XXI)	Department of Chemistry, IIT Kharagpur, Kharagpur – 721302, West Bengal, INDIA	IIT Kharagpur	14-12-2024 to 17-01-2024
02	Prof. Chandan Mukherjee	National Conference of Society for Nitric Oxide and Allied Radicals	Department of Chemistry, IIT Roorkee, Roorkee – 247667, Uttarakhand, INDIA	IIT Roorkee	21-02-2025 to 22-02-2025
03	Prof. T. Punniyamurthy	Site-Selective C-H Functionalization: Application to Medicinally Important Heterocyclic Compounds	Nagaland University	Lumami	26/3/2025
04	Prof. T. Punniyamurthy	Merging Site-Selective C-H Functionalization and Strained Ring Systems to Construction Heterocyclic Scaffolds	IIT Goa	Goa	28/1/2025
05	Prof. T. Punniyamurthy	Site-Selective C-H Bond Functionalization/Annulation: Access to Medicinally Important Heterocycles	Bharathidasan University	Tiruchirapalli	3/1/ 2025 (i-TOB 2025)
06	Prof. T. Punniyamurthy	Site-Selective C-H Bond Functionalization/Annulation: Access to Medicinally Important Heterocycles	IACS	Kolkata	28/12/24 (Chem 2024)
07	Prof. T. Punniyamurthy	Merging the Site-Selective C-H Activation and Strained Rings Systems	Berhampur University	Berhampur	21/12/24 (SOS-2024)
08	Prof. T. Punniyamurthy	Site-Selective C-H Bond Functionalization/Annulation: Access to Complex Molecular Frameworks	Jamal Mohammed College	Tiruchirapalli	18/12/24 (ICRACER 2024)
09	Prof. T. Punniyamurthy	erging C-H Activation and Strained Rings for the Construction of Medicinally Important Heterocyclic Compounds	Mizoram University	Aizwal	6/11/24 (CACSRE 2024)
10	Prof. T. Punniyamurthy	Merging the Site-Selective C-H and Strained Ring Systems	IISER Berhampur	Berhampur	28/10/24
11	Prof. T. Punniyamurthy	Strained Ring Systems for the Construction of Heterocyclic Compounds	Reddy's Laboratories	Hyderabad	5/7/24 (CRSI Symposium)
12	Prof. T. Punniyamurthy	Merging C-H Activation and Strained Rings for the	IIT Madras	Chennai	21/06/24

		Construction of Medicinally Important Heterocyclic Scaffolds			
13	Prof. T. Punniyamurthy	Exploring Strained Rings for the Construction of Biologically Important Heterocyclic Compounds	NIT	Tiruchirapallai	6/5/24
14	Prof. Manabendra Sarma	Theory of Unimolecular Reactions – From Collision Theory to RRKM Theory: A Journey of Four Decades	Department of Science & Humanities, National Institute of Technology (NIT) Nagaland	Dimapur, Nagaland, India	25/04/2024
15	Prof. Manabendra Sarma	Career Prospects in Chemistry	Training Program for Scientific Awareness and Career Development for School Students and Teachers	Indian Institute of Technology (IIT) Guwahati, Guwahati, Assam, India	19/12/2024
16	Prof. Manabendra Sarma	Exploring Cutting-Edge Research Directions in Chemistry: An Interactive Session with School Teachers of Assam	Assam State Teachers Training Programme under Samagra Siksha Assam	Indian Institute of Technology (IIT) Guwahati, Guwahati, Assam, India	21/12/2024

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks
01	Dr. Anindita Ukil	Calcutta University	Host pathogen interaction: A tale of invaded and the invader	08-07-2024	NA
02	Prof. Elena Besley	Notingham University	Research Collaboration	07/03/2025	International

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
01	Prof. Achalkumar Ammathnadu Sudhakar	RSC Meet the Editors	RSC India	13/11/2024	International	300

AWARDS AND HONOURS

- Prof. T. Punniyamurthy:Silver Medal,CRSI
- Prof Subhas Chandra Pan:CRS Silver Star Award,Chirantan Rasayan Sanstha (CRS ®), Vidyasagar University Campus
- Prof Subhas Chandra Pan:CRSI Bronze medal ,Chemical Research Society of India
- Dr. Kalishankar Bhattacharyya:Emerging Best Poster award,SMC, BARC

STUDENTS' ACHIEVEMENTS

- Ms. Ritvika Kushwaha:Best Poster award,Horizons Symposium, Beijing, China.
- Ms. Ritvika Kushwaha:Best Poster award,FICS, IIT Guwahati
- Mr. Priyam Das:Best Oral Presentation award,International Conference on Smart Materials for Sustainable Technology, INST Mohali
- Mr. Priyam Das:Best Poster award,FICS, IIT Guwahati

- Ms. Tanushree Das:Best Poster award,FICS, IIT Guwahati
- Ms. Bittu Lama:Financial Assistance from Science & Engineering Research Board (SERB) under International Travel Support (ITS) Scheme,Science & Engineering Research Board (SERB)
- (PhD Student):,
- Mr. Biman Medhi:Financial Assistance from Science & Engineering Research Board (SERB) under International Travel Support (ITS) Scheme,Science & Engineering Research Board (SERB)
- (PhD Student):,
- Ms. Bittu Lama:PROM Program (NAWA) – Short-term Academic Exchange at Nicolaus Copernicus University in Torun, Poland,Nicolaus Copernicus University in Torun, Poland
- (PhD Student):,
- Mr. Roopjyoti Misra:Best Oral Presentation,FICS 2024, IIT Guwahati
- Mr. Rahul Kesarwani:Best Poster Award,FICS 2024, IIT Guwahati

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
01	Prof. A. S. Achalkumar	Ph.D. (CSMR, Bangalore)	Professor	Liquid crystals, Functional Materials, Molecular Electronics, Self Assembly, Green Chemistry
02	Dr. A. S. Akshai Kumar	Ph.D. (IISc Bangalore)	Associate Professor	Organometallic Chemistry, Inorganic Chemistry, Organofluorine Chemistry, Catalysis (Homogeneous and Heterogeneous), C-H and C-F activation
03	Prof. Subhendu Sekhar Bag	Ph.D. (IIT Kharagpur)	Professor	Bioorganic Chemistry and Chemistry of Unnatural Nucleic Acid and Peptides
04	Prof. Jubaraj B. Baruah	Ph.D. (IISc Bangalore)	Professor	Homogeneous Catalysis, Supramolecular chemistry and material design
05	Dr. Krishna Pada Bhabak	Ph.D. (IISc Bangalore)	Associate Professor	Organic and Bio-organic Chemistry
06	Prof. Shyam Prosad Biswas	Ph.D. (Ulm University, Germany)	Associate Professor	Gas/Vapor/Liquid Adsorption and Catalytic Applications of Metal-Organic Frameworks
07	Prof. Arun Chattopadhyay	Ph.D. (Columbia University)	Professor	Nanoscale Science and Technology
08	Dr. Sunanda Chatterjee	Ph.D. (IISc Bangalore)	Associate Professor	Peptide Chemistry, Supramolecular Chemistry, Antimicrobial peptide research, Peptidomimetic chemistry
09	Prof. Animesh Das	Ph.D. (University of Goettingen, Germany)	Associate Professor	Organometallic chemistry and catalysis
10	Prof. Debapratim Das	Ph.D. (IACS, Kolkata)	Professor	Supramolecular dynamic aggregates, peptides, lipids
11	Prof. Gopal Das	Ph.D. (IIT Kanpur)	Professor	Supramolecular, Bioorganic chemistry and Biomineralization
12	Prof. Sumana Dutta	Ph.D. (IACS, Kolkata)	Associate Professor	Experimental & Theoretical Physical Chemistry / Self-organization and Nonlinear dynamics
13	Prof. Ashish K. Gupta	Ph.D. (Univ. of California, Los Angeles)	Professor	Quantum Molecular Dynamics
14	Prof. Parasmeswar K. Iyer	Ph.D. (CSMCRI, Bhavnagar)	Professor	Polymer synthesis, Organic / Organometallic Chemistry & Device fabrication, Sensors
15	Prof. Chandan K. Jana	Ph.D. (WWU Muenster, Germany)	Professor	Total Synthesis/ Natural Product Based Drug Discovery/ Synthetic Methodology/ Development of New Reaction

16	Dr. Pavan K. Kancharla	Ph.D. (IIT Kanpur)	Associate Professor	Organic Chemistry, Carbohydrate Chemistry, Development of Synthetic Methodology, Organocatalysis.
17	Prof. Abu Taleb Khan	Ph.D. (Kalyani University, W.B)	Professor	Synthesis of Natural Products, Heterocycles and Carbohydrate Chemistry, Newer Methodologies
18	Prof. G. Krishnamoorty	Ph.D. (IIT Kanpur)	Professor	Organic Photochemistry & Spectroscopy
19	Prof. Lal Mohan Kundu	Ph.D. (LMU Munich, Germany)	Professor	Nucleic Acid / Peptide Chemistry, DNA / RNA Damage and Repair, DNA Hybrid Materials
20	Dr. Kingsuk Mahata	Ph.D (University of Siegen, Germany)	Associate Professor	Solar Fuel from Water, Supramolecular Catalysis, Theranostic Nano-Medicine
21	Prof. V. Manivannan	Ph.D. (IACS, Calcutta)	Professor	Coordination Chemistry
22	Prof. Bhubaneswar Mandal	Ph.D. (EPFL, Lausanne, Switzerland)	Professor	Peptide Chemistry and Amyloid Research
23	Prof. Debasis Manna	Ph.D. (University of Illinois at Chicago)	Professor	Lipid-Protein Interaction, Lipid Synthesis
24	Prof. Uttam Manna	Ph.D. (IISc, Bangalore)	Associate Professor	Bio-Inspired Polymeric Materials.
25	Prof. Biplab Mondal	Ph.D. (IIT Bombay)	Professor	Coordination and Bioinorganic Chemistry
26	Prof. Chandan Mukherjee	Ph.D. (Max-Planck Institute of Bioinorganic Chemistry, Muelheim, Germany)	Professor	Oxidation Catalysis / Molecular Magnetism / Synthesis of Single-Molecule Magnets (SMMs) / MRI Contrast agents / Water Oxidation Chemistry
27	Prof. Subhas Chandra Pan	Ph.D. (Max-Planck-Institut fuer Kohlenfor-schung, Muelheim an der Ruhr, Germany)	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
28	Prof. Aditya N. Panda	Ph.D. (IIT Kanpur)	Professor	Dynamics of bimolecular scattering processes
29	Prof. Bhisma K. Patel	Ph. D. (IIT Kanpur)	Professor	Bio-Organic Chemistry and Newer Methodologies
31	Prof. Sandip Paul	Ph.D. (IIT Kanpur)	Professor	Computational Biophysics and Chemistry
32	Prof. T. Punniyamurthy	Ph.D. (IIT Kanpur)	Professor	Synthetic Organic Chemistry
33	Prof. Mohd Qureshi	Ph.D. (IIT Kanpur)	Professor	Materials Chemistry
34	Prof. Manabendra Ray	Ph.D. (IIT Kanpur)	Professor	Bioinorganic and Coordination chemistry
35	Prof. Kalyan Raidongia	Ph.D. (JNCASR)	Associate Professor	Physical Chemistry
36	Prof. Kalyanasis Sahu	Ph.D. (IACS, Kolkata)	Professor	Time Resolved Absorption and Fluorescence Spectroscopy, SHG, MUPPETS
37	Prof. Anil Kr. Saikia	Ph.D. (RRL Jorhat)	Professor	New Synthetic Methodology & Natural Product Synthesis
38	Prof. Chivukula V. Sastri	Ph.D. (University of Hyderabad)	Professor	Biomimetic Chemistry and Chemical Biology

39	Prof. Manabendra Sarma	Ph.D. (IIT Bombay)	Associate Professor	Development of new theoretical approaches to: Laser Assisted Control of Chemical Reactions, Resonances in Electron – Molecule Scattering, and Electronic Structure Theory and Quantum Molecular Dynamics of Small to Large Systems
40	Prof. Dipankar Srimani	Ph.D (IACS, Jadavpur)	Associate Professor	Organic, Organonometallic Chemistry
41	Dr. Samir Kumar Sarkar	Ph.D. (IISc, Bangalore)	Assistant Professor	Main-group chemistry, Carbon capture utilization and storage (CCUS) and Material Chemistry
42	Dr. Debdas Dhabal	Ph.D (IIT Delhi)	Assistant Professor	Computational Material Science and Biomaterials
43	Dr. Kalishankar Bhatt acharyya	Ph.D. (IACS, Kolkata)	Assistant Professor	Computational methods and applications to material science, particularly in energy conversion and storage

Civil Engineering

1. **Year of Establishment of the Department: 1998**

2. **Academic Programmes Offered:** The Department is currently having B. Tech, M.Tech and PhD Programmes. The Post Graduate (PG) includes the following specialization:

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

3. **No. of Laboratories: 09**

Engineering 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).

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 analytes 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 micro-biology 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 geo-materials such as soils, rocks, geo-synthetics, fly-ash, composite materials and different by-products of the geo-materials. 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, bio-stabilization, 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 geo-materials. 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 include:

- Financial modelling of infrastructure projects
- Construction cost estimation and rate development
- Earned value analysis of infrastructure projects
- Resource driven scheduling
- Dimensional 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 Strucutural 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-48chanel data acquisition system, Hydraulic Fork Lift, A-Frame Aluminium Ladder (16ft high), Automatic Vicat's apparatus for SC, Initial and Final Setting of Cement, 500 LPM in Powerpack for MTS test system, Real Time Hybrid Simulation Facility for dynamic testing of structures, Reaction Mass Assembly for Electoseis Long Stroke Shaker Model 113 etc., Abaqus V 6.8 software, ANSYS – v13, SAP 2000 – v14 , MIDAS , Primavara etc.

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 software 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:

Earth System Science and Engineering specialization is one of the seven specializations offered by Department of Civil Engineering, Indian Institute of Technology Guwahati. This specialization has a multidisciplinary approach to study various aspects of the Earth systems. This unique programme was started in 2016 with the objectives to provide high quality classroom, laboratory and field education. This specialization offers both M.Tech and Ph.D. program.

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.

4. **Major Equipment and Facilities acquired during 1 April 2024 – 31 March 2025:**

   MIKE Model manager, 1D Pipeflow, 1D River, 2D Overland, Rainfall Runoff, Control Software;

   Concrete Profometer

5. **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: INTERNATIONAL, NATIONAL

Name of Faculty	Name of Conf./Workshop	Place	Date	International/National
Bharat T.V.	International Geoscience and Remote Sensing Symposium (IGARSS)	Athens, Greece	07-12 July 2024	International
Bharti R	International Geoscience and Remote Sensing Symposium (IGARSS)	Athens, Greece	07-12 July 2024	International
Amit Shelke	IEEE Computer Society Conference on Computer Vision and Pattern Recognition Workshops	Seattle, WA, USA	17-18 June 2024	International

AWARDS AND HONOURS

- **Dr. Arindam Dey:** Member of the Expert Committee for Capacity Building and Training on Geospatial Science and Technologies (Summer-Winter School) of National Geospatial Program (NGP, erstwhile NRDMS) of DST-GOI from 2021 for 3 years.

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
01	Barua, Gautam	Ph. D. from Indian Institute of Technology, Kharagpur	Professor	*Flow through porous media
02	Bharadwaj Neepjyoti	Ph.D. - University of Missouri - Columbia	Assistant Professor	* Traffic safety. * Naturalistic Driving Study. * Traffic flow theory. * Econometric Modeling
03	Bharat, T. Venkata	Ph. D. Indian Institute of Science, Bangalore, India	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 & geoenvironmental engineering problems
04	Bharti, Rishikesh	Ph.DIndian Institute of Technology Bombay, Mumbai.	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.

05	Bhattacharjya, Rajib K.	Phd., Indian Institute of Technology Kanpur,	Professor	*Water Resources System Management *Genetic Algorithms *Artificial Neural Networks
06	Chakraborty, Arunasis	PhD - Trinity College, Dublin, Ireland	Professor	• Random Vibration & Wavelet Analysis • System Identification & Damage Detection • Uncertainty Quantification & Reliability Based Design
07	Chakraborty, Saswati	PhD IIT Bombay	Professor	• Heavy metal removal by polymers • Aerobic granular reactors • Sequential treatment of industrial wastewater • Constructed wetland for wastewater treatment
08	Chakraborty Sayantan	Ph.D. - Indian Institute of Technology Bombay	Assistant Professor	*Shear zones and Fault zones *Evolution of Mountain Belts *Microstructures *Thermochronology
09	Choudhary, Rajan	Ph.D Indian Institute of Technology Roorkee	Professor	*Pavement Analysis and Design *Highway Construction and Quality Control *Pavement Material Characterization *Pavement Evaluation and Maintenance *Traffic Engineering
10	Das, Sandip	Ph.D – Indian Institute of Technology Kanpur	Associate Professor	*Earthquake Engineering *Structural Dynamics *Random Vibration
11	Dasgupta, Kaustubh	Ph.D. Indian Institute of Technology Kanpur, India	Associate Professor	*Earthquake Engineering *Design of Reinforced Concrete Structures *Retrofitting of Structures
12	Dashora, Ajay	Ph. D, IIT Kanpur	Assistant Professor	* 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
13	Deb, Sajal Kanti	Ph. D. IIT Roorkee	Professor	*Passive and semi-active control *Performance based seismic design *System identification & structural health monitoring *Seismic damage assessment
14	Dey, Arindam	Ph. D. IIT Kanpur	Associate Professor	*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
15	Dutta, Anjan	Ph.D – Indian Institute of Technology Delhi	Professor	*Finite Element Mesh Generation *Optimization *Control, Health Monitoring and Retrofitting of structures
16	Dutta, Subashisa	Ph.D. Indian Institute of Technology Kharagpur	Professor	*Meso-Scale Distributed hydrological modeling *Satellite Remote Sensing and GIS for Water resources Management *Computational river hydraulics and its applications *Watershed and Irrigation Management
17	Ghosh, Pranab Kumar	Ph.D – Indian Institute of Technology Kharagpur	Professor	*Water treatment for domestic and industrial use *Domestic and Industrial wastewater treatment *Sludge treatment by physicochemical and biological process
18	Gokhale, Sharad B. (Head)	Ph.D. Indian Institute of Technology Delhi.	Professor	*Air Pollution and Environmental Noise
19	Hazra, Budhaditya	PhD - University of Waterloo, Canada	Associate 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	Johari Sparsh	Ph.D. - Indian Institute of Technology Delhi	Assistant Professor	*Construction Project Management *Workforce Management *Capacity Building *Skill Development Training *Construction Productivity

				*Project Performance *Construction Quality *Safety, and health
22	K., Ravi	Ph.D – Indian Institute of Science (IISc) Bangalore	Associate Professor	*Geo-environmental engineering *Geo-energy systems *Engineering behaviour of unsaturated soils *Research on hazardous waste management
23	Kalamdhar, Ajay	Ph.D. Indian Institute of Technology Roorkee, India	Professor	*Solid waste management *Mechanical composting and vermicomposting *Analysis of solid wastes
24	Kar Santu	Ph.D. - Indian Institute of Technology Delhi	Assistant Professor	*Construction Project Management *Material Management *Automation in Construction *Optimization in Construction Management *Sustainable Construction *Risk Management *Green and Affordable Housing *Construction Productivity
25	Kartha, Suresh A.	Ph.D from Indian Institute of Technology Kanpur	Professor	*Flow and transport through porous media *Heap leaching *Hydrology *Numerical modeling
26	Kaushik, Hemant B.	Ph.DIndian Institute of Technology Kanpur, India	Professor	*Earthquake Resistant Design *Nonlinear Behaviour of Structures *Retrofitting of Structures *Finite Element Modeling
27	Kumar, Abhishek	PhD Indian Institute of Science, Bangalore, India	Associate 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
28	Kumar, Bimlesh	PhD (Indian Institute of Science, Bangalore)	Professor	*Small scale studies of mixing tanks *Experimental Studies of Aeration Systems *Sediment Transport analysis *Pipeline analysis *CFD simulation *Surge analysis
29	Mallikarjuna, Chunchu	Ph.D – Indian Institute of Technology Delhi	Professor	*Traffic flow theory and Modeling *Traffic data collection and analysis *Travel demand modeling

30	Maurya, Akhilesh K.	Ph.D. Indian Institute of Technology (IIT) Kanpur.	Professor	*Driver behaviour *Traffic flow theory and modeling *Traffic engineering
31	Mishra, Anil Kumar	Ph. D. - 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	Nair, Archana M.	Ph.D. IIT Bombay	Associate 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
33	Oinam Romanbabu Meetei	Ph.D. - Indian Institute of Technology Delhi	Assistant Professor	* Seismic evaluation & Retrofitting of structures. * Supplemental damping & Energy dissipating devices. * Performance-based seismic design of structures. * Fiber-reinforced concrete. * Large scale testing of structures using Quasi-static, Pseudo-dynamic, and Hybrid simulation methods. * Numerical modeling of reinforced concrete and steel structures
34	Padmanabha Vivek	Ph.D. - Indian Institute of Science, Bangalore	Assistant Professor	*Impact Geomechanics: investigating the properties of geomaterials (soils-rocks) under high strain rate and high pressure loading. *Shock attenuation and compression phenomena in granular /porous materials *Dynamic fracture and fragmentation in rocks *Blast resistance and mitigation strategies on Geotechnical Structures
35	Pradhan, Bulu	Ph.D (Indian Institute of Technology Delhi, India)	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	Ph.D – Indian Institute of Technology 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	RB Sharmila	Ph.D. - Indian Institute of Technology Bombay	Assistant Professor	*Machine learning *Intelligent Transportation System *Driver behaviour studies *Traffic safety and sustainable transportation
38	Ryntathiang, Teiborlang. Lyngdoh	Ph.D – Indian Institute of Technology, Kharagpur	Professor	*Pavement Materials *Precast Concrete Block Pavement *Cast In-Situ Concrete Block Pavement
39	Sreeja, Pekkat	Ph. D. Indian Institute of Technology Bombay	Associate Professor	*Urban Flood Modeling *Modeling and Control of Open Channel Flows *Infiltration and artificial recharge *Stochastic Hydrology *River Mechanics
40	Sarma, Arup Kumar	Ph.D. – Guwahati University	Professor	*Modeling & simulation in Free Surface Flow *Heuristic Method in Reservoir Optimization *GIS based Watershed Modeling
41	Sharma, Hrishikesh	Ph.D Zachry Department of Civil Engineering, Texas A&M University,	Associate Professor	*Impact and Blast Resistant Design *Reliability Analysis and Performance Based Engineering *Design and Optimization of Protection Measures
42	Shelke, Amit Balasaheb.	Ph.D (The University of Arizona)	Associate Professor	*Ultrasonic wave propagation *Acoustic-Impact detection *Non-destructive testing
43	Singh, Arbind K.	Ph.D (IISc Bangalore)	Professor	*Information Technology in Construction Engineering *Object-Oriented Programming *Constitutive modeling
44	Singh, Baleshwar	Ph.D. Indian Institute of Technology Delhi	Professor	*Marine Geotechnology *Modelling of Onshore & Offshore Foundations *Soil Stabilization & Ground Modification *Pavement Subgrade & Site Characterization
45	Singh, K. Darunkumar	PhD Southampton University	Professor	*Structural Analysis and Design *Finite Element Method *Fracture and Fatigue Mechanics
46	Singh, Laishram Boeing.	Ph.D, Indian Institute of Technology Madras)	Professor	*Public Private Partnerships *Risk Management *Construction Management
47	Sreedeep, Sekharan.	Ph. D. – 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

48	Siddagangaiah, Anjan Kumar	Ph.D (Indian Institute of Technology Madras)	Associate 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
49	Taki Kaling	Ph.D. - Indian Institute of Technology Gandhinagar	Assistant Professor	* Problematic soil. * Ground improvement. * Solid waste management. * Sustainable construction material. * Nanomaterials. * Construction biotechnology. * Contaminant remediation and containment. * Soil pollution.
50	Verma Abhishek	Ph.D – Indian Institute of Technology Delhi	Assistant Professor	* Seismic evaluation & collapse performance of structures. * Steel and composite structures. * Cold-formed steel. * Passive energy dissipating devices.

Computer Science and Engineering

YEAR OF ESTABLISHMENT OF THE DEPARTMENT : 1995

ACADEMIC PROGRAMMES OFFERED: .Tech., M.Tech., Dual Degree (M.Tech. + Ph.D.), Ph.D.

LABORATORY FACILITIES:

Multimedia Laboratory: Our research mainly focuses on Deep Learning approaches to solving different Computer Vision problems like image, video restoration, underwater vision, super-resolution, satellite image segmentation, image translation, image steganalysis, zero-shot learning, adversarial perturbation, etc. Besides computer vision problems, our group also explores different ML-based approaches for adaptive video streaming in a 5G environment. Currently, nine research scholars, seven master's students, and seven undergraduate students are working in the lab. We have published 38 journal papers and more than 60 conference papers in different premium journals and conferences. Multimedia Lab is well equipped for state-of-art research in multimedia, image and video processing domains, 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 equipment.

Robotics and Speech Laboratory: The lab has developed an in-house open-source multi-agent emulator, nicknamed Tartarus. The same has been written in SWI-Prolog. Tartarus facilitates users in creating a network of nodes comprising either a single PC/laptop/embedded systems (such as Raspberry Pi) or several such devices connected as a LAN (wired/wireless). It facilitates programming 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 made to migrate to others autonomously in the network they inhabit. Such agents can even be programmed to clone (copy and multiply) on the fly, 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 either Prolog or Python and executed at desired nodes. One could try out using other languages as well. Agents can communicate with each other and with program residents at a node. As of now, Tartarus can be run on Windows, Ubuntu, and Raspbian operating systems. Tartarus can run on the Raspberry Pi, too. It can be used to sense the sensors on board and control the actuators (motors, relays, etc.) connected. The research focuses on distributed and decentralised cyber-physical systems, emphasizing Bio-inspired algorithms. The Lab is equipped with NXT Mindstrom LEGO sets Education Based (.LEGO 9797) with Resource kit associated with education NXT Software, NI WSN Starter kit, NXT sensors, and Raspberry Pi 3. New Fire Bird V ATMEGA2560 Robot Research Platform has also been acquired, which is a standard AVR microcontroller-based Fire Bird V fitted with Raspberry Pi SBC (Single Board Computer) and higher resolution encoders. The Lab also has a CSL workstation, headphones, and speakers.

Open Source Intelligence Group Laboratory: The objective of OSINT Lab is to mine and discover actionable intelligence for various applications from publicly available information such as social media platforms, news feeds, microblogging sites, etc. The group actively involves various research problems related to text mining, NLP, social media data mining, social network analysis, information retrieval, etc., over social media data. OSINT lab is an interdisciplinary Lab with collaborators from machine learning, information retrieval, information security, computational linguistics, user interface design, and visualization. The Lab has state-of-the-art facilities with high-end CPU and GPU computing servers, 100TB of NAS storage, distributed Spark clusters, and distributed NoSQL databases. The Lab has executed various sponsored projects. It curates and archives a large volume of social media data at the scale of more than 200 billion microblogs (tweets, news articles, Facebook posts). It has developed tools for analysing social media data (Vishleshakee), event detection from news feeds, OCR for Manipuri Language, Manipuri Text-to-Speech synthesis system, and a Sentiment analysis system for public opinion. Some of the products developed in the Lab are used by companies like Lamzing Technologies Pvt. Ltd. It is also involved in various outreach activities, such as developing POS and NER for Dzongkha and 100+ internships for students from different engineering institutions in the Northeast.

Computer Networks & Security Laboratory: 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 researchers aim to develop low-cost and effective communication and media technology solutions with a focus on 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 addressing the design of future network architecture.

User-centric Computing and Networking Laboratory: The Lab focuses on designing and developing applications for computing devices that cater to heterogeneous user groups. The user-centric computing paradigm (otherwise known as the human-computer interaction) is applied in designing applications used in large-scale content delivery to ensure a good quality of consumer experience on heterogeneous devices and networks. The challenges that arise in developing user-centric networked applications are addressed from theoretical and practical perspectives.This Lab is equipped with Mavic Air 2 Fly More Combo Drone, Mavic mini drone, RICOH Theta Z1 360° Camera, Leap Motion, Oculus Rift, Oculus Quest 2 Virtual Reality Head Mounted Display, Epson Moverio BT35E smartglass, Data gloves, Microsoft kinect sensor, 360 degree Camera, 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 NetBest viewed in Internet Explorer 9.0 & above or Mozilla Firefox Ver 3 & above with a resolution of 1024 X 76800. FPGA Cards).

Computer Architecture & Embedded Systems Laboratory: 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, multicore architecture, scheduling, and cache design for multicore. Embedded System Development Software, Chip Scope-Pro Software, Virtex-II Pro based Protoboard with FPGA, Virtex-5 Development Board with device XC5VLX50 and VIDEO ADC–DAC Add On Card, Universal Multi-vendor Kit with on board device XC3S400 PQ208C, Simics-4.0.61, Xilinx- ISE Design Suite, Embedded System Development Software (UEFi_EDK) & Chip Scope-Pro Software(UEF-CSP-PRO), ISE Design Suit, Basys3 FPGA BOARD etc. Under the VLSI laboratory in our department, we aim to inculcate student interest in VLSI design, test, and verification, and facilitate students to build and test prototype designs.

Hardware Laboratory: The Department hardware laboratory is equipped with educational tools to promote a 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. This Lab also offer space for various research cum major/minor project to be carried out. 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, various Software tools like Xilinx evaluation kits, various Architectural Tools and Simulators, Development kits with DE1-SOCMLT2 etc.

Samsung Innovation Laboratory: This Lab facility was set-up under MOU with SIEL - Samsung India Electronics Private Limited. This facility emphasizes academic collaboration through special industry-oriented courses, jointly by IITG & SIEL, technical talks & industry expert lectures/demonstrations, minor/major student projects & student technical contests, Research activity mainly engrossed with IoT &Networking. The Lab is equipped with RASP-PI-3 Motherboard, Wifi Router, High-end GPU Servers, Quad Store QS_URPI Ultra Kit for Raspberry Pi 3, 2, Lora-Wan Gateway, Lora modules, Arduino Shields, Sensing module kit for measuring Temp, Humidity, etc., Smart Display, etc.

MARS Research Laboratory: This Lab designated with research in the area of Multicore Architecture and Systems like Optimising network-on-chip architecture, Cache optimization in Tiled Chip Multi-Processors (TCMP), Machine Learning based accelerators for NoCs, enhancing, Non-Volatile Memory (NVM) Technology, Secure System on Chip Design Techniques, Disaggregated Memory Management in Data Center Architectures, Performance Enhancement in Wireless Network On Chips, etc. This Lab Facilitated with Server, Workstations, High-end Desktops, Xilinx evaluation kits, various Architectural Tools and Simulators, and Development kits with DE1-SOCMLT2, etc.

3 Nos. UG Soft Laboratory, 2 Nos. PG Soft Laboratory, 3 Nos. Research Scholar Laboratory : These Labs are designated as a computing Facility for B.Tech , M. Tech Students & Research Scholars. These are 24x7 Lab facilities; one workspace allocated to each student. Major activities of these Labs are Soft Project, Tutorials, BTP & MTP, Individual research works by Ph. D. Students, etc. All workspace are equipped with N/W cum Wi-Fi facility, High-end Desktop cum other computing Facility, IBM Rational Rose software development suite, Oracle RDBMS with Oracle products and Oracle Academic Initiative, Java compiler and applet viewer, C++ compilers and Lisp interpreters, Rational rhapsody developer, MATLAB, Solaris both SPARC and X86 versions, etc.

SUSMA Lab: This Lab is designated for research in the area of computer architecture like improving performance and lifetime of the emerging non-volatile memories, NoC architecture optimization, and accelerator design for machine learning applications. This lab is facilitated by a server, workstations, architectural tools, and simulators.

AVS (Automation, Verification, and Security) Lab: This Lab is designated for research in the area of compiler security, hardware security, logic locking, formal verification, and high-level synthesis. This Lab is facilitated with workstations.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED (1 APRIL 2024– 31 MARCH 2025):

SL No	Equipment / Facility
1	UPS Systems For Soft/ Research Lab Facility
2	Server ProLiant DL380 Gen11 -CPU Node
3	Server ProLiant DL380 Gen11 with Nvidia L2 24GP GPU
4	H/W cum Network Analyzer Kit (Mixed Signal Oscilloscope (MSO24-EDU 2-BW-100), Spectrum Analyzer (GSP-730) & RF & spectrum analyzer training system. GRF-1300
5	Network Simulation kit (Nvidia AGX, AKX00051/Arduino 10 set, AKX00034/ARDUINO 10 set)

MAJOR AREAS OF RESEARCH AND DEVELOPMENT:

Sl.No.	Area	Faculty Involved
1	Theoretical Computer Science	Purandar Bhaduri, Samit Bhattacharya, Sriram Bhyravarapu, Jatindra Kumar Deka, Diganta Goswami, R. Inkulu, Benny George K, Chandan Karfa, Sushanta Karmakar, Deepanjan Kesh, Pinaki Mitra, S. V. Rao, Khushraj Madnani
2	Computer Architecture and Embedded Systems	Sukanta Bhattacharjee, Satyajit Das, Jatindra Kumar Deka, John Jose, Hemangee K. Kapoor, Chandan Karfa, Sukumar Nandi, Aryabartta Sahu, Lokesh Siddhu, Phrangboklang Lyngton Thangkhiew
3	Man-Machine Interfaces	Sukanta Bhattacharjee, Samit Bhattacharya, Sriram Bhyravarapu, Pradip Kr. Das, Shivashankar B. Nair, V. Vijaya Saradhi
4	Computer Systems	Satyajit Das, Diganta Goswami, John Jose, Sushanta Karmakar, Manas Khatua, Pinaki Mitra, Sukumar Nandi, Moumita Patra, S. V. Rao, Aryabartta Sahu, G. Sajith, Arijit Sur, Tamarapalli Venkatesh
5	Artificial Intelligence, Machine Learning and Data Mining	Ashish Anand, Amit Awekar, Rashmi Dutta Baruah, Manas Khatua, Sukumar Nandi, Moumita Patra, V. Vijaya Saradhi, Sanasam Ranbir Singh, Arijit Sur

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL

Sl. No.	Name of Faculty Prof./Dr. (Name) (Surname)	Name of Conf./Workshop	Place	Date	International/ National
1	Prof. T. Venkatesh	ACM/IEEE Embedded Systems Week (ESWEEK)	Hamburg, Germany	18/9/2023-20/9/2023	International
2	Dr. Moumita Patra	Workshop on Present and Future Computing Systems	Indian Institute of Science (IISc), Bangalore	12/1/2024-15/01/2024	
3	Dr. Moumita Patra	Workshop on Developing a Robust and Secure Routing Algorithms for real time Vehicular Networks	National Institute of Technology (NIT) Calicut	08/01/2024-14/01.2024	
4	Dr. Hemangee K. Kapoor	23rd IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing (CCGrid) 2023	BANGALORE, INDIA	MAY 1-4, 2023	International
5	Dr. Hemangee K. Kapoor	CODS-COMAD 2023	IIT Jodhpur	18-21 December, 2024	National
6	Dr. Hemangee K. Kapoor	23rd International Conference of Embedded System Design" (VLSID 2024)	ITC Royal Bengal, Kolkata, India	6-10 January 2024	National
7	Dr. John Jose	ACM/IEEE Embedded Systems Week (ESWEEK)	Hamburg, Germany	18/9/2023-20/9/2023	International
8	Dr. John Jose	6th IEEE International Symposium on Embedded Multicore/Many-core Systems-on-Chip	Singapore	18/12/2023 - 21/12/2023	International
9	Dr. John Jose	IEEE Region 10 Technical Conference	Chiang Mai, Thailand	31/10/2023 - 3/11/ 2023	International
10	Dr. John Jose	23rd International Conference of Embedded System Design" (VLSID 2024)	ITC Royal Bengal, Kolkata, India	6-10 January 2024	National

Sl. No.	Name of Faculty Prof./Dr. (Name) (Surname)	Name of Conf./Workshop	Place	Date	International/ National
11	Dr. Chandan Karfa	ISVLSI 2023 : IEEE Computer Society Annual Symposium on VLSI	Iguazu Falls, Brazil	Jun 20, 2023 - Jun 23, 2023	International
12	Dr. Chandan Karfa	23rd International Conference of Embedded System Design" (VLSID 2024)	Kolkata India	45299	International
13	Dr. Aryabartt Sahu	*IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing (CCGrid) 2023*	Bangalore, India	1–4 May 2023	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Sl. No.	Name of Faculty Prof./Dr. (Name) (Surname)	Name of Inst./Org.	Place	Date D/M/Y
1	Aryabarrta Sahu	University of Pardubice	Czech Republic	20/05/2024
2	Moumita Patra	Institut Polytechnique de Paris,	France	01/07/2024
3	Prof. Venkatesh	VNIT Nagpur, Daimler Truck Innovation Center	Bangalore	
	Prof. S. B. Nair	IIIT Manipur	Manipur	
4	Prof. S. B. Nair	NIT Jamshedpur	Jamshedpur	
5	Prof. Sukumar Nandi	NIT Jamshedpur	Jalandhar	
6	Dr. John Jose	Chandigarh University	Chandigarh	
7	Dr. John Jose	IIT Ropar	Ropar	
8	Prof. Hemangee K. Kapoor	IISc Bangalore	Bangalore	29/11/2024
9	Prof. Hemangee K. Kapoor	Persistent Systems	Pune	10/07/2024
10	Prof. Hemangee K. Kapoor	ACM India Annual Event, PSG Tech college	Coimbatore	26/02/2025

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Sl. No.	Name Prof./Dr. (Name) (Surname)	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date D/M/Y
1	Prof. Prabhta Mishra	University of Florida	Workshop on Quantum Computing	01/07/2024
2	Dr. Arpita Patra	IISc	the Marvellous journey of Mighty MPC	17/09/2024
3	Dr. Partha P. Talukdar	Google DeepMind & IISc	Inclusive Language Technologies for All: From India to the World	03/10/2024
4	Dr. Abhijit Das	N3Cat, UPC Spain	Interconnects and Schedulers for Next-Generation Computing Systems	21/10/2024
5	Mr. Kaushal Bhogale	AI4Bharat lab, IIT Madras	Empowering Low-Resource Language Speech Recognition via Large-Scale Pseudo Labeling	18/12/2024
6	Prof. Indranil Sengupta	IITKGP	Recent Advances in In-memory Computing	12/09/2024
7	Dr. Khushraj Madnani	MPI-SWS, Kaiserslautern, Germany	Presburger Arithmetic : Quantifier Elimination and Some Applications	06/02/2025
8	Dr. Tanmoy Dutta	IIIT Delhi	Consistent Decision-Making with Inconsistent Beliefs: Decentralized Multi-Robot Planning under Uncertainty with Limited Data Sharing	07/03/2025
9	Prof. Prabhat Mishra	University of Florida	Explainable AI for Cybersecurity	10/03/2025

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Sl. No.	Name of Faculty	Name of Sem./Wor./Con.	Funded By	Date D/M/Y	International/ National
1	Dr. John Jose	Skill Enhancement Workshop in Teaching and Research	SERB and INAE	28/02/2025	National
2	Dr. John Jose	Faculty Develepment Program on 5G-V2X and Network Security	ISEA, Phase-III	24/02/2025	National
3	Prof. Arijit Sur	Winter School on Deep Learning for Vision and Language Modelling		06/01/2025	National

4	Dr. John Jose	IEEE-IC Standards Hackathon and Asia Pacific Symposium on Internet Measurement, Security and Standards	Advanced Internet Operations Research in India	16/12/2025	National
5	Dr. John Jose	IEEE Quantum Technologies Workshop		03/06/2024	International
6	Dr. John Jose	IEEE R10 Industry Workshop		02/09/2024	National
7	Dr. Moumita Patra	Faculty Develepment Program on 5G-V2X and Network Security	ISEA, Phase-III	24/02/2025	National
8	Prof. Sukumar Nandi	IEEE International Conference on Advanced Networks and Telecommunications Systems	IEEE Communications Society	15/12/2024	International
9	Dr. John Jose	IEEE Quantum Technologies Workshop	IEEE Communications Society	06/03/2024	International

AWARDS AND HONOURS

- Prof. Hemangee K Kapoor: ACM India Outstanding Contributions in Computing by a Woman (OCCW) 2024 Award, ACM India Council
- Dr. Chandan Karfa: Google India research Award 2024, Google India Research
- Dr. Chandan Karfa: Google Silicon Research Award 2024, Google India Research
- Dr. Sukanta Bhattacharjee: Google Silicon Research Award 2024, Google India Research

STUDENTS' ACHIEVEMENTS

- Mr. Praveen Karmakar: Qualcomm Innovation Fellowship (QIF) India 2024, Qualcomm Technologies
- Mr. Karthik Maddala: Best MTech Thesis Award 2024, IIT Guwahati
- Mr.Soumya Nandan Mishra: Best Paper Award, IEEE COMSNETS 2025 Workshop (SAMAT)
- Vedant Gaurang Shah: President of India Gold Medal, 26th convocation of IITG
- Pranshu Kandoi: Governor of Assam Gold Medal (UG), 26th convocation of IITG
- Anirban Lekharu: Best Ph.D. thesis, 26th convocation of IITG

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
1	Ashish Anand	Nanyang Technological University, Singapore	Professor	NLP, Clinical Text Mining, Machine Learning and its application in computational biology, Deep Learning
2	Amit Awekar	North Carolina State University, Raleigh, NC, USA	Associate Professor	Data Mining, Natural Language Processing
3	Rashmi Dutta Baruah	Lancaster University, United Kingdom	Associate Professor	Evolving and Adaptive Intelligent Systems, Computational Intelligence, Learning from Data streams, Deep Learning, Explainable AI and Model Interpretability
4	Purandar Bhaduri	Washington State University, Pullman	Professor	Formal Verification of Reactive Systems, Automated Controller Synthesis, Logic and Semantics of Computation
5	Sukanta Bhattacharjee	ISI Kolkata	Assistant Professor	Design Automation Algorithms, Microfluidics, Security
6	Samit Bhattacharya	IIT Kharagpur	Associate Professor	Human Computer Interaction, User Modeling, Model Based Evaluation of Interactive Systems, Rehabilitation Engineering
7	Sriram Bhyravarapu	IIT Hyderabad	Assistant Professor	Graph algorithms, graph theory and parameterized algorithms.
8	Pradip Kr. Das	University of Delhi, New Delhi	Professor	Speech Processing, Man-Machine Intelligence Systems, Algorithms, Software Engineering, Smart Devices, Mobile Robotics
9	Satyajit Das	University of South Brittany, France, and University of Bologna, Italy	Assistant Professor	Systems for Artificial Intelligence, Computer Architecture, Low Power Design, Reconfigurable Computing, Cryptography, High Level Synthesis, CGRA (Coarse Grained Reconfigurable Array)
10	Jatindra Kumar Deka	IIT Kharagpur	Professor	Formal Modelling and Verification, CAD for VLSI and Embedded Systems (Design, Testing and Verification)
11	Diganta Goswami	IIT Kharagpur	Professor	Distributed Systems, Software Engineering

12	R. Inkulu		Associate Professor	Algorithms
13	John Jose	IIT Madras	Associate Professor	Computer Architecture, On-chip Storage and Interconnects, Hardware/IoT Security, Disaggregated Systems, Edge Device Computing
14	Benny George K	TIFR	Assistant Professor	Word combinatorics, algorithms and combinatorics
15	Hemangee K. Kapoor	London South Bank University, UK	Professor	Multiprocessor Computer Architecture, Formal Methods, Network-on-Chip design, Asynchronous systems
16	Chandan Karfa	IIT Kharagpur	Associate Professor	Formal Verification, High-level Synthesis, Electronic Design Automation, Hardware Security, Verification of Compiler Optimizations.
17	Sushanta Karmakar	IIT Kharagpur	Professor	Graph Algorithms, Distributed Optimization
18	Deepanjan Kesh	IIT Kanpur	Associate Professor	Data Structures and Algorithms
19	Manas Khatua	Indian Institute of Technology Kharagpur	Associate Professor	Internet of Things, Wireless Networks, Sensor Networks, Network Security, Cloud and Edge Computing, Cyber Physical Systems
20	Khushraj Madnani	IIT Bombay	Assistant Professor	Formal verification of infinite-state systems, automata and logics for timed systems, formal logics and models of computation, and network controlled cyber physical systems.
21	Pinaki Mitra	Simon Fraser University, Canada	Associate Professor	Computational Geometry, Parallel Algorithms, Randomized Algorithms, Optimization
22	Shivashankar B. Nair	Amravati University, Maharashtra, India	Professor	Artificial Intelligence, Intelligent and Nature-Inspired & Emotional Robots, Mobile Agent based systems, Artificial Immune Systems, Intelligent Internet of Things, Cyber-Physical Systems, Natural Language Processing, Genetic Algorithms, Fuzzy Systems & Neural Networks
23	Sukumar Nandi	IIT Kharagpur	Professor	Computer Networks, Computer and Network Security, Data mining, Machine Learning, VLSI, Computer

				Architecture, Computational Linguistics
24	Moumita Patra	IIT Madras	Associate Professor	Wireless networks, Internet of vehicles, IoT, 5G based communication, Network performance analysis
25	S. V. Rao	IIT Kanpur	Professor	Wireless Networks, Software Defined Networking, Algorithms
26	Aryabartta Sahu	IIT Delhi	Associate Professor	Multicore (Architecture, Scheduling and Programming) and Computational Social Systems
27	G. Sajith	IIT Kanpur	Professor	External Memory Algorithms, Algorithmic Game Theory, Parallel and Distributed Algorithms, Complexity Theory
28	V. Vijaya Saradhi	IIT Kanpur	Professor	Machine Learning, Kernel Methods, Data Mining and their applications
29	Lokesh Siddhu	IIT Delhi	Assistant Professor	3D Architectures, Thermal Management, Embedded Systems, Emerging Memory Technologies
30	Sanasam Ranbir Singh	IIT Madras	Professor	Open Source Intelligence (Social Media/Social Network Analysis), Information Retrieval, NLP
31	Arijit Sur	IIT Kharagpur	Professor	Computer Vision using Deep Learning: Machine learning, Adaptive video streaming, Media Forensics
32	Phrangboklang Lyngton Thangkhiew	NIT Meghalaya	Assistant Professor	In-memory Computing, Digital Design and Neuromorphic Computing using Emerging Memory Technology.
33	T. Venkatesh	IIT Madras	Professor and Head	Network Protocols and Architectures, Cloud Data Centers, Multimedia Streaming

Design

YEAR OF ESTABLISHMENT OF THE DEPARTMENT : 1998

ACADEMIC PROGRAMMES OFFERED: B.Des, M.Des, M.Des(EPD), Ph.D., Post-Doctoral

LABORATORY FACILITIES:

No. of Laboratories with brief introduction: 20

1. **Ergonomics Laboratory**

Ergonomics laboratory at Department of Design, IIT Guwahati was set-up in 1999. 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 equipment are available for virtual ergonomics evaluation and cognitive workload study. Two (02) faculty members (Prof. S. Karmakar, and Dr. U.R. Salve) and 10 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.).

2. **Sustainability and social Innovation Lab(DfS)**

Design for Sustainability 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 objective of the lab are:

- To provide infrastructure and guidance to student projects related to DfS.
- Conduct training sessions for interested local institutions 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.

3. **Workshop**

An industrial design group is always incomplete without a well-equipped workshop. Department workshop consists of advanced prototyping machines like rapid prototyping tool, blow moulding machine, metal and prototyping equipment such as wood, bamboo, plastic, metal etc. which are actively made use of by students and staff.

4. **Media Lab**

Multimedia and visual communication are integral streams of department of Design. Equipped with professional softwares like Final Cut Pro and advanced video-graphy studios, New Media lab has witnessed many marvellous projects in the field of animation, multimedia and digital art.

5. **Design Futures Studio (previously named as E-Kalpa lab)**

DFS is a design studio space with a focus on design-led applications and research. The studio has active design and research projects in diverse areas, including designing for Human-Centered Design interactive systems,

designing for special populations of children and elderly, and interaction design for Electric Vehicles. In DFS, design problems drive use of specific technologies and strategies to generate meaningful design outcomes.

6. **Animation research lab**
   Laboratory of Visual Ethnographers, Animation Research Lab (ARLab), is a research & practice based model in which one can figure out the possibilities of using animation with its artistic endless potential and possibilities. This model emphasizes on the ethnographic approaches of cultural construction and interpretation, biographies of objects, participatory approaches etc. of tribes and inguinal communities. Besides research-based ethnographies, we investigate the artistic possibility of animation techniques to measure user performance & acceptance in variety of research domain like edutainment, heritage construction, animatronics, gamification, healthcare and architecture

7. **Visual Communication studio**
   VC Studio aims to be a centre for excellence in the field of visual communication design in Northeast region. It was started with the following objectives:
   Nurture innovation and creativity in the field of visual communication.
   Create design awareness and enhance visual sensitivity towards visual culture in the Northeast.
   Develop a state of the art facility to support design and research in visual communication.
   Cultivate visual research culture among students.
   Train and develop visual and visualization skills for better communication.

8. **The embedded interactions lab**
   Ei Lab founded in 2012 by Dr. Keyur Sorathia, primarily founded on applied research into User Experience (UX) Design and Human-Computer Interaction (HCI), has expanded its research into ares of Design Thinking, Problem-based Learning (PBL), Creativity, and Sustainability, aligned with the United Nations' Sustainable Development Goals (SDGs)

9. **Design and Technology Management Lab**

   The Design and Technology Management Lab, IIT Guwahati is an independent interdisciplinary Lab in Department of Design, IIT Guwahati. The Lab primarily focuses on conducting research and consultancy in the field of design and technology management with special emphasis to socio-economic development, entrepreneurship and governance. The Lab would deals with two major traits. The first one is ‘Design and Innovation Management’, which include management through creativity design and innovation, design strategy and policy formulation and implementation. It deals with aspects of creativity, design and innovation for organization transformations and growth with strategic design interventions in products, processes, systems and services. The other issue is the ‘Technology Management’, which includes management of technology for competitive advantage. It deals with various aspects of technology management in industries and society in terms of products, processes, systems and services. The Lab emphasizes on collaborative design and innovation. The Lab acts as a medium for industry institute partnership for design, innovation, technology and knowledge transfer. It provides a common platform for all the existing academic departments and centers of IITG to interact, conduct research, share and transfer knowledge and evolve design and technology management solutions for various problems in diversified fields.

10. **Computer Lab**

11. **Usability Engineering and HCI Lab**

12. **Product Design & Development Studio**

13. **Material lab**

14. **Visualization lab**

15. **Photographic Lab**

16. **3 D Printing Lab**
17. **Master Craftsman Lab**
18. **Fine Mechanics and Product Development Lab**
19. **Proto Lab**

MAJOR EQUIPMENT AND FACILITIES ACQUIRED :

3D Printer for PCB Printing

3 Axis CNC Router

Electric Kiln

Pipe Bending Machine

3D Printers FDM

AR VR equipment

MAJOR AREAS OF RESEARCH AND DEVELOPMENT:

Human Computer Interaction, AR and VR, Service and Systems Design, Advanced Manufacturing viz 3D printing and 3D Scanning, Design Management and Strategy, Product Design, Design for Development, Design for sustainability and Social Innovation, Smart Product Design, Electronic Product Design, Graphic Design and Visual Communication, Smart Cities and Space Design, Automobile Design, Ergonomics.

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

Projects / industry consultancy:

Gyan Dhara – Dr. Keyur Sorathia

VR Application for Guwahati Planetarium- Dr. Keyur Sorathia

Impact Assessment Study of Basundhara 1.0 and 2.0 - Prof. Pratul Chandra Kalita

Service System Design for Real Estate Authority of Assam - Prof. Pratul Chandra Kalita

Book Publish: 02

1. **Jagtap, S.** (2024). *Design and Engineering for Low Resource Settings: A Practical Guide.* **Springer**, ISBN: 978-3-031-66155-6.

2. "Chakrabarti, A., Singh, V., and **Acharya, S**., Editors, (2025). *The Future of Design Education* – Proceedings of InFuSED'23. Springer Nature Singapore. e-book ISBN 978-981-97-7363-3]"

Book Chapter: 01

Acharya, S. (2025). *The D in Design : What drives design student*. In Chakrabarti, A., Singh, V., and **Acharya**, S., Editors, *The Future of Design Education – Proceedings of InFuSED'23.* Springer Nature Singapore. [e-book ISBN 978-981-97-7363-3]

Journal Paper: 09

1. Misra, S., Dhar, D., & Nandi, S. (2025). Decolonising Design Ethics–An Indian view of the nature of impact of designed artefacts. Design Studies, 98, 101304
2. Raj Ritik, AJEET KUMAR, Jeng JY. Additive manufacturing of biphasic architectured structure and analysis of its mechanical and functional response. The International Journal of Advanced Manufacturing Technology. 2024 Nov;135(5):2065-85.
3. Ghosh, T., Singh, A.K., Mitra, S., Karmakar, S., 2024. Gathering insights of the global scenario of floating-bed agriculture through systematic literature review for its promotion in Indian context. Progress in Disaster Science, Vol-24, 100367. https://doi.org/10.1016/j.pdisas.2024.100367 [ESCI, Scopus, Q1, IF:2.6]
4. Singh, G. and Karmakar, S., 2024. Addressing OSH challenges in non-standardized work practices in small-scale FMCG units by introducing context-specific ergonomic pouch/sachet cutting apparatus, Work, https://doi.org/10.3233/wor-240096 [SCIE, Q2, Scopus, IF: 1.7]
5. Jetti, R., & Dhar, D. (2024). Design-Durability: Insights from Product Case Analyses. Archives of Design Research, 37(5), 131-172.
6. Raj R, Prajapati MJ, Tsai JT, KUMAR AJEET, Jeng JY. Design and additive manufacturing of novel hybrid lattice metamaterial for enhanced energy absorption and structural stability. Materials & Design. 2024 Sep 1;245:113268.
7. Raj R, Ajeet Kumar, Jeng JY. Additive manufacturing of biphasic architectured structure and analysis of its mechanical and functional response. The International Journal of Advanced Manufacturing Technology. 2024 Nov ;135(5):2065-85.
8. Chao YD, Liu SC, Chen FL, Prajapati MJ, Ajeet Kumar, Tsai JT, Jeng JY. Development of 17-4 PH Stainless Steel for Low-Power Selective Laser Sintering. Materials. 2025 Jan 19;18(2):447.
9. Mallampalli, K.C. and Karmakar, S. 2025. Ergonomic design interventions to minimize musculoskeletal disorders among female workers in cashew kernel separating activity: a participatory approach. Theoretical Issues in Ergonomics Science.

Distinguished Paper awards: 05

Received the following 'Distinguished Paper' awards in International Conference on Research into Design, held at IIT Hyderabad from January 8-10, 2025.

1. Chachane, L., Jagtap, S., Kamble, S. for their research paper titled- Requirements of freelance designers for collaboration platforms.

2. Ms. Pragati Murathia and Dr. Supradip Das for their research paper titled- Conceptual Design of a Scoliosis Aiding Brace and a monitoring application.

3. Rhea Gupta and Dr. Sharmistha Banerjee for their research paper titled- Language Learning in the Streaming Era: Leveraging Subtitled Media for Gen-Z.

4. Arbaniabud Mawthoh, Dr. Sheetal Gokhale, and Prof Udaya Kumar Dharmalingam for their research paper titled- EXPLORING PICTORIAL RUNES IN CHILDREN'S COMIC MAGAZINE TINKLE.

5. Shubham Ramesh Vernekar, Kavyashree Venkatesh, Dr. Shakuntala Acharya for their research paper titled-Co-design of Foot Health Monitoring Solution for Children with Cerebral Palsy.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL

Sl. No.	Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
01	Dr Shakuntala Acharya	International Design Conference (DESIGN2024)	Cavtat, Croatia	20/05/2024	International
02	Dr Shakuntala Acharya	Doctoral Design Consortium (DDC) 2025, IDC School of Design, IIT Bombay, India|	IIT Bombay, India	22/02/2025	National

03	Dr Shakuntala Acharya	International Conference on Research into Design, IIT Hyderabad	IIT Hyderabad	08/01/2025	International
04	Prof. Pratul Ch Kalita	International Conference on Research into Design, IIT Hyderabad	IIT Hyderabad	08/01/2025	International
05	Prof. A.K. Das	International Conference on Research into Design, IIT Hyderabad	IIT Hyderabad	08/01/2025	International
06	Prof D Udaya Kumar	International Conference on Research into Design, IIT Hyderabad	IIT Hyderabad	08/01/2025	International
07	Dr. Supradip Das	International Conference on Research into Design, IIT Hyderabad	IIT Hyderabad	08/01/2025	International
08	Dr. Debayan Dhar	International Conference on Research into Design, IIT Hyderabad	IIT Hyderabad	08/01/2025	International
09	Dr. Santosh Jagtap	International Conference on Research into Design, IIT Hyderabad	IIT Hyderabad	08/01/2025	International
10	Dr. Pankaj Upadhyay	International Conference on Research into Design, IIT Hyderabad	IIT Hyderabad	08/01/2025	International
11	Dr. Sheetal Gokhale	International Conference on Research into Design, IIT Hyderabad	IIT Hyderabad	08/01/2025	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD (1 APRIL 2024– 31 MARCH 2025)

Sl. No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
01	Prof. Pratul Ch Kalita	Design Thinking for Competitive Advantage	NIT Silchar	Silchar	20/02/2025
02	Prof Sougata Karmakar	User-centered Design Innovations to Address Safety Critical Issues in Rework Activities in FMCG Sectors	IIT Roorkee	Roorkee	19/10/2024
03	Prof D Udaya Kumar	Impact of AI on Design Education	Salesforce Designers	Bangalore	24/10/2024
04	Dr Shakuntala Acharya	Design Creativity	Kyushu University, Japan	Fukuoka City, Japan	08/11/2024
05	Prof D Udaya Kumar	Design Education	IIT Hyderabad	Hyderabad	08/01/2025
06	Prof A K Das	Design for Society: Is it just design or more	IIT Hyderabad	Hyderabad	08/01/2025
07	Prof D Udaya Kumar	Metagreen 4.0	College of Architecture Trivandrum, Trivandrum	Trivandrum	27/02/2025
08	Prof D Udaya Kumar	Typography Day	IDC School of Design, IIT Bombay	IIT Bombay	06/03/2025
09	Dr. Ajeet Kumar	Biomimetic design and Additive manufacturing	Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram, Chennai	Kancheepuram, Chennai	15/03/2025
10	Dr. Sheetal Gokhale	Fragments- Meaning making in photography	IIT Roorkee	Roorkee	28/03/2025

11	Dr Sharmistha Banerjee	Creativity and Innovation	Indian Institute of Management, Vastrapur, Ahmedabad	Ahmedabad	28/01/2025
12	Prof. Pratul Chandra Kalita	Creative problem-solving using design thinking	IIM Shillong	Shillong	21/08/2024
13	Dr. Ajeet Kumar	Fundamentals and Advancements in Additive Manufacturing	Ganpat University, Gujarat	Mahesana, Gujarat	26/09/2024

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED (1 APRIL 2024– 31 MARCH 2025)

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
01	Dr. Tomo Inoue	Kyushu University Graduate School of Design, Fukuoka, Japan	Design of Architectural planning and city planning	12/11/2024
02	Prof Masakazu Tani	Kyushu University Graduate School of Design, Fukuoka, Japan	Design and Cultural studies	12/11/2024
03	Ms. Jayne Graham	Freelance Textile Designer, London	Indian Textiles and Crafts - Design Opportunities for Designers	05/02/2025
04	Ms Shilpa Marathe	IBM iX in Germany	Designers in the AI Era	09/03/2025
05	Ms. Kasturi Thakre	Nutanix Ltd. Bengaluru	Professional-work demands as UX Designer in a corporate work environment-Some shared experiences	03/03/2025
06	Prof. Tomohiko Sakao	Linkoping University, Sweden	GIAN Programme	27/01/2025

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED (1 APRIL 2024– 31 MARCH 2025)

Sl. No.	Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International / National	No. of participants
01	Dr Shakuntala Acharya	2nd Indian Summer School on Design Research – DRM GURUKOOLL	DIC	15/06/2024	National	50
02	Dr Ajeet Kumar	Design for Additive Manufacturing for Assam Start ups	STPI Guwahati	18/10/2024	National	60
03	Dr. Urmi R Salve	Traditional Mask Making and Contemporary Application	DIC	10/02/2025	National	54
04	Dr Supradip Das	Macrame workshop	Gifu University, Japan	06/03/2025	International	20
05	Prof R M Punekar	Industrial Design Considerations in Design and Development of Electronic Products	Meity	11/02/2025	National	60
06	Dr. Sheetal Gokhale	Looking at animation as a visual language of Impossibilities	DIC	17/02/2025	National	56
07	Prof R M Punekar	Human Centred Research Methodologies in	Meity	03/02/2025	National	60

		Development of Interactive Electronic Product Design				
08	Prof. Pratul Ch. Kalita	GIAN: Product Service System Design: Methods and Tools with a Design and Technology Management Perspective	MoE	27/01/2025 28/01/2025 29/01/2025 30/01/2025 31/01/2025	International	38
09	Prof. Pratul Ch. Kalita	Design Thinking for Competitive Advantage	Meity	25/04/20252 6/04/2025	National	35

STUDENTS' ACHIEVEMENTS

- Kavyashree Venkatesh, Shubham Ramesh Vernekar, K Shrikaran, Vinay Acharya and Abhishek Kunta: 2nd place in the Stanford Centre on Longevity Design Challenge 2025: Reimagining Education and Learning Stanford University, California, US
- Ms. Kavyashree Venkatesh and Mr. Harsh P: OzCHI24 student challenge (top 3 entry), 36th Australian Conference on Human-Computer Interaction, Brisbane, Australia

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
01	Shakuntala Acharya	Indian Institute of Science (IISc), BANGALORE	Assistant Professor Grade 1	Design Creativity and Innovation; Design for Sustainability; Smart Cities; Design methodology
02	Sharmistha Banerjee	IIT Guwahati	Assistant Professor	Design for sustainability, Agricultural Product Design, Life cycle Assessment and Design, Sustainable Product-Service System Design, Product design, Medical Product Design, User Experience Design, Human Centered Design
03	Utpal Barua	IIT Guwahati	Professor	Graphic Design,Design drawing and Visualization,Visual design Principles and applications,Indian Symbology
04	Prabin Kumar Bora	Indian Institute of Science (IISc) Bangalore	Visiting Professor (on Contract)	Image Processing and Computer Vision
05	Amarendra Kumar Das	IIT Guwahati	Professor	Industrial Design,Rapid Pro typing and tooling,space Design,Environment Graphics,Design for Disabled
06	Supradip Das	IIT Guwahati	Assistant Professor	Origami Inspired Product Development,Toy for tomorrow,Paper Craft,Transformable furniture,Structural packaging design.
07	Debayan Dhar	IIT Guwahati	Associate Professor	Usability Engineering, Human-Computer Interaction, Design Ethics, Biomedical Device Design
08	Santosh Jagtap	University of Cambridge, UK	Associate Professor	Co-design and co-creation, Design creativity and Innovation management, Design for low-income and marginalized people, Design for sustainability, Design and culture, Human centered design of emerging-technology-based products, Design theory

09	D.Udaya Kumar	IIT Bombay	Professor	Topography,Type Design,Information Graphics,Motion Graphics,design Researce,Exibition Design,architecture
10	Sheetal M.Gokhale	IIT Guwahati	Assistant Professor	Film & Video, Animation Graphic Design
11	Shareka Iqbal	--	Assistant Professor	Adaptive Resue ,Solar Passive Architecture
12	Pratul Chandra Kalita	IIT Guwahati	Professor	Design Management.Design Method,Design for Development
13	Sougata Karmakar	Bharathiar University, Coimbatore	Professor	Virtual Simulation (CAD and Digital Human Modeling), Physical Ergonomics (Product and Workstation design), Cognitive Ergonomics (Information processing), and Occupational Safety & Health
14	Ajeet Kumar	National Taiwan University of Science and Technology	Assistant Professor	Additive Manufacturing, Lattice Structure, Biomimetic Design, Direct Digital Manufacturing, Design for Additive Manufacturing
15	Mriganka Madhukailya	IIT Guwahati	Associate Professor	Short Film,New Media theory,Video Art,Documentary Film,Participatory Theory
16	Manoj Majhi	IIT Guwahati	Associate Professor	Animation,,Special Effects,Cartooning
17	Ravi Mokashi Punekar	IIT Guwahati	Visiting Professor (on Contract)	Design Research, Design thinking, Product Design
18	Urmi Ravindra Salve	University of Calcutta	Associate Professor	Human factor engineering, Occupational Ergonomics, Research Methodology
19	Abhishek Srivastava	IIT Bombay	Associate Professor	Interaction Design, Design for Development,New Media, Graphic Design & Cartooning.
20	Abhishek Singh	IIT Guwahati	Assistant Professor	Automative design,Product Design, Graphic Design,Design Researce.
21	Keyur Sorathia	IIT Guwahati	Associate Professor	Interection Design,Gesture controlled User Interfaces,Design for development.
22	Pankaj Upadhyay	IIT Guwahati	Assistant Professor	Product design,Industrial Design,Design for Manufacture, Consumer product Design,Industrial Equipment design.

Electronic and Electrical Engineering

YEAR OF ESTABLISHMENT OF THE DEPARTMENT: 1995

ACADEMIC PROGRAMMES OFFERED:

BTech Programmes:

(i) Electronics and Communication Engineering

(ii) Electronics and Electrical Engineering (started in July 2008)

MTech Programmes: The Department offers MTech programme in Electronics and Electrical Engineering with the following specializations.

(i) Communication Engineering

(ii) Power Engineering

(iii) Microelectronics, Photonics & RF Engineering

(iv) Signal Processing & Machine Learning

(v) VLSI and Nanoelectronics

(vi) Systems, Control and Automation

Interdisciplinary MTech Programme: The interdisciplinary Master's degree programme in Data Science with intake of 20 started in July 2019. This programme is jointly administered by CSE, EEE and Math departments on yearly-rotation basis.

Dual Degree Programme [MS (Eng) + PhD]: Dual Degree Master of Science (Engineering) + PhD programme started in July 2015 with sanction intake of 19. The major areas of research are the same as those under the PhD Programme.

PhD Programme: The PhD programme covers the following major areas of research.

Communication Engineering: Wireless communications, information theory and coding, communication networks, computer networks, computational photography, data compression, and cryptography, quantum error correction, quantum computation and communication, waveform design for wireless communications, vehicular communications, 5G/6G wireless communication, AI/ML application in communications, adversarial machine learning.

Power Engineering: Power systems, power electronics, power quality, power electronics application in power system, micro grid and renewable energy resources, power distribution system planning, custom power devices, electrical machines, control of electrical drives, smart grids and electric vehicles, high voltage engineering, high voltage engineering and applied electromagnetics, condition monitoring of power apparatuses, high voltage and pulse power, high power density motor design, inductive charging for EVs, vector control of motors, power system monitoring and control, power system cyber-security, decentralized control for the smart grid.

Microelectronics, Photonics and RF Engineering: Antenna, microwave engineering, electromagnetics, computational electromagnetics. fiber optic communication, optoelectronics, photonics integrated circuits, optical communication, optical networks, optical sensors, microwave and photonics, optical instrumentation, plasmonics and metamaterials and smart electrotuneable plasmonic metasystems, silicon photonics, structural health monitoring using fiber optics, distributed acoustic sensors, optical signal processing, digital holography, phase imaging, photonics and metamaterial device design using AI, reconfigurable metasurfaces, terahertz photonic topological insulators, metamaterials and metasurfaces for advanced photovoltaics and light emitting diodes, antenna, microwave engineering, electromagnetics, computational electromagnetics, vacuum electronics, millimeter-wave communication.

Signal Processing and Machine Learning: Data sciences, biomedical signal and medical image processing, speech and handwriting processing, image/video processing and computer vision, pattern recognition, multimedia analytics, biometrics, counter-spoofing, security and privacy, biometrics and biometric counter-spoofing, privacy preserving analysis for secure computation, secure key distribution and management in wireless sensor networks, video analytics, vision and language, natural language processing, deep learning.

Systems, Control and Automation: Systems theory, control theory and applications, control of nonlinear uncertain systems, artificial intelligence based control, identification and control of nonlinear systems, relay based identification and autotuning, adaptive control, optimal control, robotics and automation, cryptography, robust control, cooperative control of multi-agent systems, decentralized control for smart power grid applications, model predictive control, reinforcement learning, vibration control of flexible structures, modelling and control of mechatronic and robotic systems, multi-agent systems and cooperative control, group-coordinated control of UAVs, UGVs and AUVs, connected vehicle platooning, passivity-based control and

dissipativity, negative-imaginary systems theory, robust control of missiles, spacecraft and rockets, smart and microgrid control using a multi-agent framework, controller design for energy management system in electric vehicles.

VLSI and Nanoelectronics: Solid-state devices, analog and RF integrated circuits, digital systems, DSP architectures, CAD for VLSI, high performance computing, organic electronics, flexible electronics, instrumentation, MEMS, SAW devices, quantum computing, hardware security, sensors, non-volatile memory technologies, spintronics, power semiconductor devices, photodetectors, VLSI system design, embedded system design, computer architecture, neuromorphic computing, in-memory computing, hardware realization of machine learning algorithms, magnetic random-access memory (MRAM), magnetic tunnel junctions (MTJ), advanced data storage technologies, neuromorphic devices, wearable sensors, electronic nose, papertronic sensing systems, and sensor interface electronics, quantum photonics, wide bandgap semiconductors, reliability, photovoltaics, energy devices for green hydrogen, quantum sensing devices, semiconductor packaging technologies, low-dimensional semiconductor devices, single electron transistors, single photon emitters and detectors, nano-bioelectronics, light emitting diodes and transistors, transient electronics.

PhD Programme under Interdisciplinary Category:

Interdisciplinary PhD has been introduced with other departments of IIT Guwahati from July 2020.

LABORATORY FACILITIES

The Department of EEE has 33 laboratories which are equipped with the state-of-the-art equipment and software. These laboratories are used for instructional purposes as well as carrying out R&D activities in diverse areas. The list of laboratories presently functioning in the Department is as follows.

Name of Labs and Brief Description

1. Advance Photonics Simulation Laboratory (Instructional)

The Advance Photonics Simulation Laboratory is well-equipped with several experimental setups and several software packages for experiments. The facilities include loss measurement, LED characterization etc. The major software available in this laboratory are: OptiSystem, OptiSPICE, OptiGrating, OptiFDTD, OptiFiber, Silvaco TCAD 3D.

2. Undergraduate Project Lab

The lab started functioning in August 2016. This lab is specially designated for BTech students to perform experiments related to their bachelor's projects.

3. Communication and Networking Lab (R&D)/ Advance Photonics Laboratory

The lab has a dark room for characterization and experimental facilities for optoelectronics and photonics systems and devices.

4. Communication Lab-I (R&D)

5. Communication Lab-II (R&D)

6. Communication Lab-III (R&D)

Research Scholars working in different areas related to communication engineering use these labs.

7. 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 several experimental set-ups, namely, mobile robot platforms, multi DOF manipulator, twin rotor MIMO system, inverted pendulum systems, level control system.

8. Control & Instrumentation Lab-II (Instructional)

The Control and Instrumentation Lab-II is an instructional laboratory used for lab courses such as Instrumentation Lab (UG), Robotics & Control Lab (UG), and Applied Control Lab (PG). The laboratory has work benches each equipped with advanced test and measuring instruments like 200 MHz DSO, DDS function/arbitrary waveform generator, 6½ 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 measurement and control systems, e.g. signal conditioning circuits, controllers like PID, and robots.

9. Electrical Machine Lab (Instructional)

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

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

The Lab was set up in the year 2004. The laboratory focuses on the research and development activities related to biomedical signal and image processing, speech signal processing, coding 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.

11. Electronic Circuit Lab-I (Instructional)

12. Electronic Circuit Lab-II (Instructional)

The Electronic Circuits Lab-I & II mainly hold basic electronics lab sessions for the first-year undergraduate students of all the departments. The labs are equipped with a 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 filters, rectifiers, transistor characteristics, comparators, combinational logic circuits, synchronous and asynchronous counters, latches, and opamp circuits.

13. Embedded System Lab (Instructional)

Microprocessors and Embedded System 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 tactical input devices. It is an instructional laboratory. The Lab holds laboratory courses like Digital Signal Processing Lab, Digital Circuits and Microprocessors Lab, and Embedded Systems Lab.

14. E-Mobility Lab (EML): This is a new initiative for developing state-of-the-art technologies for electric vehicles (EVs). The major research interests of this lab include electric motor design, power electronics converters of EVs, inductive charging systems, grid to vehicle interaction (G2V), and vehicle powertrain control algorithms.

15. High Frequency & Communication Lab (Instructional)

High Frequency & Communication Lab is an instructional laboratory and holds Lab courses like Microwave Engineering Lab, Communication Design Lab, etc. In addition, research works are carried out in the areas of antennas, analog & digital communication systems and microwave engineering.

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

High Performance Computing and FPGA Lab (HPC and FPGA Lab) was established in 2012 at the Department of EEE with initial support from IIT Guwahati and *Nvidia Corp*. The work at HPC and 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 as follows: 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 priority. In turn, the focus is to contribute knowledge and technologies in this field.

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

The ongoing major activities in the Image Processing and Computer Vision (IPCV) Lab include music signal processing, histopathology image processing, denoising, video processing, image super resolution, image forensic, computer vision, image hashing, gesture recognition and human-computer interaction.

18. Post Graduate Project Lab

The lab has started functioning from August 2016. This lab is specially designated for MTech students to pursue the work related to their master's projects.

19. Multimedia Analytics Lab (R&D)

The Multimedia Analytics Lab was set up in July 2013. This lab focuses on research and development activities related to analysis and analytics generation from multi-modal (video, speech and text) data. The research work focuses on applications related to deep learning, broadcast analytics, surveillance video analytics, language and vision, deep fake synthesis and handwriting recognition.

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

21. 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.

22. Smart Energy Conversion Laboratory: The major research interests of this lab include AC and DC distribution grid, microgrid, power quality improvement, HVDC and FACTS, electric vehicles, etc. The research lab has prototype of various power electronics devices like bi-directional dc-dc converter, three phase grid connected inverters, distribution static compensator (DSTATCOM), dynamic voltage restorer (DVR), unified power quality conditioner (UPQC), dual active bridge (DAB) converter, smart transformer, battery charger, etc. Controllers like dSPACE MicroLabBox and eZDSP28335 are being used to control the various converters.

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, prototype development and testing can be performed in the lab. DSP and FPGA controllers for power electronics applications also can be tested.

24. Power Systems Lab (Instructional)

The Power Systems Lab is well-equipped with several experimental set-ups and software packages for real time experiments. The facilities include overcurrent, under voltage and differential relays. The major equipment in the Power Systems Laboratory are as follows. Relay Demonstration Set-up: IDMT over current relay, instantaneous over current relay, IDMT under voltage relay, current transformer, negative sequence relay, differential relay, high voltage AC/DC/Impulse set-up. List of Software: PSS/E, PSCAD, and DIgSILENT.

25. Signal Informatics Lab (R&D)

Research and development activities related to security and document processing areas are conducted here. The Research Scholars and Project Engineers working in these areas use this laboratory. A separate cubicle has been created for housing an EEG signal recording facility.

26. Signal Processing Lab (R&D)

The Signal Processing Lab has started functioning from 2016. The lab carries out research and development activities related to speech processing, image processing, biometric face recognition, music signal processing, machine learning and cleft monitoring system. The Research Scholars working in these areas use this laboratory.

27. System Simulation Lab (Instructional)

The System Simulation Lab is a fully computerized laboratory equipped with highly configured PCs and various computational and simulation software like MATLAB, Borland C++, FPGA Advantage from Mentor Graphics, Xilinx ISE Design Suite, Zeland IE3D EM simulation software, Altera Quartus webpack, Electronics Workbench, MicroSim DesignLab (EDA software), CADSTAR PCB Design, Elanix SystemView, HP-EEsof, Hypersignal, and Operating Systems such as HP Unix, Sun Solaris, Red Hat Enterprise Linux, and Microsoft Windows.

28. VLSI Lab-I (R&D)

29. VLSI Lab-II (R&D)

VLSI Lab was set up in the year 2004 as an integral part of the Department of EEE, followed by commencement of MTech and PhD programmes in the field of VLSI design. 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 & systems design and research in recent trends like biomedical signal acquisition and processing have extensively been carried out.

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

The Department has set up a sophisticated DSP & Communication Lab 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 consisting of hardware kits and Visual DSP software from *Analog Devices*.

31. Anechoic Chamber

For the measurement of antenna pattern, EMI-EMC, and radar cross-section, a state-of-the-art Anechoic chamber is developed under the IMRPINT-I scheme of MHRD and DST under the grant

number of 7802. Major equipment in the lab includes VNA Anritsu (8 kHz – 20 GHz), RF signal generator (Rohde & Schwarz), microwave source (2 kW), RF-sensor, and automatic positioning system.

32. Silicon Photonics and Microelectronics Lab (R&D)

For the fabrication of silicon photonics and microelectronic devices, the lab is equipped with class 1000 clean room, photolithography room, class 100 work benches– organic and inorganic, E-beam evaporator of 4 kW, mask aligner MJB4 with 800 nm critical dimensions, etc.

33. Microelectronics Laboratory (Instructional)

This laboratory is providing hands on experience in VLSI design to the BTech (ECE) students.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

Sl. No.	Equipment and Facilities	Qty	Amount in Lakhs
1	Desktop PC: HP 800 G9 MT	33	26.36
2	Autonomous Surface Vehicle	1	4.95
3	UV-VIS-NIR Spectrometer	1	3.69
4	Motor Controlled Four Axis Linearized Translation Stage	1	8.48
5	Three Zone Furnace	1	4.99
6	3D Printer	1	5.42
7	Digital Storage Oscilloscope	2	8.61
8	LCR Meter	1	4.06

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 circuits design, MEMS, VLSI CAD, photonics, semiconductor devices, solid-state sensors, instrumentation, interfacing circuits; electrical converters, electric drives, smart grids, wind energy, solar energy, solar photovoltaic, power electronics and power systems; electrical machine design, contactless charging system for EVS, high voltage engineering and liquid dielectrics, battery management system for EVS; control systems, stochastic systems, relay based identification and auto-tuning, control systems, control theory applications; pattern recognition, machine learning, multimedia analytics; silicon photonics, microwave wireless power transfer, metamaterials, optoelectronics devices, distributed optical fiber sensors for structural health monitoring; biometrics and biometric counter-spoofing; cryptography and privacy preserving analysis; image forensics and analytics, depth map generation from single still images; deep learning, broadcast analytics, surveillance video analytics, language and vision, deep fake synthesis.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL

Sl. No.	Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
1.	Dr. Rishikesh Dilip Kulkarni	SPIE Photonics Europe	Strasbourg, France	07/04/2024-11/04/2024	International
2.	Dr. Ravindra Kumar Jha	INUP-i2i Offline Workshop	Guwahati	08/04/2024 – 14/04/2024	National
3.	Dr. Manoj B R	IEEE Wireless Communications and Networking Conference (WCNC 2024)	Dubai	21/04/2024 – 24/04/2024	International

4.	Dr. Nawaz Hussain	IEEE Energy Conversion Congress & Expo (ECCE) Asia	Bangalore	11/05/2025-14/05/2025	International
5.	Dr. Ravindra Kumar Jha	Workshop, IEEE International Day of Light	Guwahati	16/05/2024	National
6.	Dr. Ravindra Kumar Jha	IEEE Campus Immersion Program	Guwahati	21/06/2024 – 03/07/2024	National
7.	Dr. Sonali Chouhan	International Conference on Recent Advances in Mathematics and Data Sciences	Bhopal	27/06/2024 – 28/06/2024	International
8.	Dr. Manoj B. R.	IEEE 99th Vehicular Technology Conference (VTC-Spring), Singapore	Singapore	24/06/2024 – 27/06/2024	International
9.	Dr. Salil Kashyap	2024 International Conference on Signal Processing and Communications (SPCOM 2024)	Bangalore	01/07/2024 – 04/07/2024	International
10.	Dr. Ankush Bag	UK Semiconductors 2024	Sheffield, UK	08/07/2024	International
11.	Dr. Ravindra Kumar Jha	ISSS- International Conference on Micro, Nano, and Smart Systems (IC-MNSS)	Bengaluru	09/07/2024 – 12/07/2024	International
12.	Dr. Ravindra Kumar Jha	International Conference on Materials and Membranes for Water and Energy	Bhavnagar, Gujrat	10/07/2024 – 12/07/2024	International
13.	Dr. Ravindra Kumar Jha	SERB sponsored Workshop on MEMS-based Scalable Healthcare Technology	Ranchi	1/08/2024 – 2/08/2024	National
14.	Dr. Ravindra Kumar Jha	Research & Industry Conclave	Guwahati	9/08/2024 – 11/08/2024	National
15.	Dr. Ravindra Kumar Jha	Two Day joint workshop, IIT Guwahati, and Semiconductor Technology & Applied Research Centre, DRDO, Bengaluru	Bengaluru	18/08/2024 – 19/08/2024	National
16.	Dr. Ravindra Kumar Jha	5th India Council International Subsections Conference (INDISCON)-2024	Chandigarh	22/08/2024 – 24/08/2024	National
17.	Dr. Ramesh Kumar Sonkar	2024 IEEE International Conference on Photonics	Pulau Pinang, Malaysia	27/08/2024 – 29/08/2024	International
18.	Dr. Anirban Dasgupta	Three-day Workshop on Translational Research, IIT Mandi iHub and HCi Foundation	IIT Mandi	30/08/2024 – 01/09/2024	National
19.	Prof. Prabir Barooah	Annual Conference, Bureau of Indian Standards, Electrical Engineering	Kochi, Kerala	31/08/2024 – 01/09/2024	National
20.	Dr. Ravindra Kumar Jha	Semiconductor Manufacturing Workshop	Delhi	09/09/2024	National
21.	Dr. Ravindra Kumar Jha	Semicon India-2024	Noida	11/09/2024 – 13/09/2024	National
22.	Dr. Manoj B R	Indo-French Seminar on 6G Wireless Networks: Challenges and Opportunities	Inria Saclay Centre, France	09/10/2024 – 11/10/2024	International
23.	Dr. Rishikesh Dilip Kulkarni	International Conference on Experimental Mechanics (ICEM 2024)	Chennai	22/10/2024	International
24.	Dr. Anirban Dasgupta	International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET- 2024) – Best paper award	NIT Patna (Online Mode)	23/11/2024	International

25.	Dr. Anirban Dasgupta	27th International Conference on Pattern Recognition (ICPR)	Kolkata	05/12/2024	International
26.	Dr. Chayan Bhawal	National Symposium on Bridging Academia and Industry for NextGen Technologies in Electrical Engineering	Shibpur, West Bengal	09/12/2024 – 11/12/2024	National
27.	Dr. Ravindra Kumar Jha	First International Conference on Sustainable Technologies (ICST-2024)	Durgapur	12/12/2024 – 15/12/2024	International
28.	Dr. Ravindra Kumar Jha	IEEE CALCON-2024	Kolkata	14/12/2024 – 15/132/2024	National
29.	Dr. Sanjib Ganguly	National Power System Conference (NPSC) 2024 IIT Indore	Indore	14/12/2025 – 16/12/2025	National
30.	Dr. Manoj B R	IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS)	IIT Guwahati	15/12/2024 – 18/12/2024	International
31.	Dr. Chayan Bhawal	IEEE Conference on Decision and Control (CDC)	Milan, Italy	16/12/2024 – 19/12/2024	International
32.	Dr. Chandan Kumar	IEEE International Conference on Power Electronics Drives and Energy Systems (PEDES 2024)	NIT Surathkal	18/12/2024 – 21/12/2024	International
33.	Dr. Ravindra Kumar Jha	21st India Council Conference (INDICON-2024)	Kharagpur	18/12/2024 – 21/12/2024	National
34.	Dr. Ravindra Kumar Jha	International Conference on Advanced Nanomaterials for Energy Storage Applications (ICANEA-2024)	Guntur	19/12/2024 – 21/12/2024	International
35.	Dr. Anirban Dasgupta	21st IEEE India Council International Conference (INDICON)	IIT Kharagpur, Kharagpur	20/12/2024	International
36.	Dr. Manoj B R	Workshop on Beyond 5G Communications	IIT Guwahati	17/01/2025 – 18/01/2025	National
37.	Dr. Ravindra Kumar Jha	5th International Conference on Micro/Nanoelectronics Devices, Circuits, & Systems (MNDCS-2025)	Silchar	29/01/2025 – 31/01/2025	International
38.	Dr. Ankush Bag	Semiconnect Gujarat	Ahmedabad	05/03/2025	National
39.	Dr. Anirban Dasgupta	7th International Conference on Signal Processing, Computing and Control (ISPCC 2k25)	Solan, Himachal Pradesh (Online Mode)	06/03/2025	International
40.	Salil Kashyap	National Conference on Communications (NCC-2025)	IIT Delhi	06/03/2025 – 09/03/2025	National
41.	Dr. Manoj B R	National Conference on Communications (NCC-2025)	IIT Delhi	06/03/2025 – 09/03/2025	National
42.	Dr. Chandan Kumar	Administrative Committee Meeting of IEEE Industrial Electronics Society	Amsterdam, Netherlands	08/03/2025	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Sl.No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
1.	Dr. Ravindra Kumar Jha	Electron beam lithography	IIT Guwahati	Guwahati	08/04/2024
2.	Dr. Ravindra Kumar Jha	Risk assessment & analysis – safety management	C-DAC Kolkata	Guwahati	16/04/2024
3.	Dr. Parijat Bhowmick	Drone RF jamming and anti-drone technology	TIH, IIT Guwahati	Guwahati	24/04/2024
4.	Dr. Ravindra Kumar Jha	Non-dispersive infrared gas sensors: Opportunities & challenges	IIT Guwahati	Guwahati	16/05/2024
5.	Dr. Ravindra Kumar Jha	Exciting path of research in the semiconductor domain	IEEE India Council and IIT Guwahati	Guwahati	27/06/2024
6.	Dr. Sreenath J G	Distributed implementation of power system state estimation considering synchrophasor measurements	NIT Calicut	Calicut, Kerala	01/07/2024
7.	Dr. Sonali Chouhan	Latest research trends in wireless communication	Adi Shankara Institute of Engineering and Technology, Ernakulam	Online	02/07/2024
8.	Dr. Anirban Dasgupta	IIT Delhi Certificate Programme in Machine Learning and Deep Learning	TimesPro and IIT Delhi	Online	06/07/2024, 07/07/2024, 13/07/2024,
9.	Dr. Ravindra Kumar Jha	Electronic materials for room temperature energy efficient chemiresistive gas sensors	CSIR- Central Salt and Marine Chemicals Research Institute (CSMCRI), Bhavnagar, Gujarat	Bhavnagar, Gujarat	10/07/2024
10.	Dr. Ankush Bag	Invited lecture on widebandgap semiconductors	Center for Device Thermography and Reliability, School of Physics, University of Bristol, UK	Bristol, UK	11/07/2024
11.	Dr. Ravindra Kumar Jha	Nanosensors and their role in building efficient Nanonetworks	St. Joseph's College of Engineering & Technology, Palai, Kerala	Kerala	24/07/2024
12.	Dr. Sreenath J G	Multi-area power system state estimation considering GPS spoofing attack on PMUs	NIT Patna	Patna, Bihar	24/07/2024
13.	Dr. Ravindra Kumar Jha	Challenges and opportunities of chemiresistive gas sensors based on microelectro-mechanical systems for early disease diagnosis in the post-metal oxide era	BIT Mesra	Ranchi	01/08/2024
14.	Dr. Chandan Kumar	Smart transformer enabled meshed hybrid distribution grid	41th IEEE International Communications Energy Conference (INTELEC)	Bengaluru, India	07/08/2024
15.	Dr. Ravindra Kumar Jha	Advanced sensing devices for detection of toxic gases at room temperature	IIT Guwahati	Guwahati	10/08/2024
16.	Prof. Prabir Barooah	Optimization using Matlab	IIT Guwahati, Research Conclave	Guwahati	10/08/2024
17.	Dr. Anirban Dasgupta	Tech-Talk Event at RIC 2024	IIT Guwahati, Research Conclave	Guwahati	10/08/2024
18.	Dr. Parijat Bhowmick	Autonomous Military Surveillance Systems by means of Drones	RIC-2024, IIT Guwahati	Guwahati	12/08/2024
19.	Dr. Debabrata Sikdar	Epsilon-near-zero material based nanophotonic metamaterials for modulation	NIT Agartala	Agartala	16/08/2024

		of optical intensity and polarization			
20.	Dr. Manoj B R	Introduction to AI/ML/DL and data analysis	Jointly with IIT Delhi and TimesPro	Virtual	17/08/2024
21.	Dr. Ravindra Kumar Jha	Introduction to heterogeneous integration of flexible sensors	Semiconductor Technology & Applied Research Centre, DRDO, Bengaluru	Bengaluru	18/08/2024
22.	Dr. Manoj B R	Classification, regression, supervised and unsupervised learning-1	Jointly with IIT Delhi and TimesPro	Virtual	18/08/2024
23.	Dr. Manoj B R	Classification, regression, supervised and unsupervised learning-2	Jointly with IIT Delhi and TimesPro	Virtual	24/08/2024
24.	Dr. Anirban Dasgupta	2 Day Foundational Course on Generative AI	IGNOU RC Kolkata (online mode)	Online	14/09/2024 – 15/09/2024
25.	Dr. Sanjib Ganguly	Ancillary Services and Imbalance Management, Power System Optimization and Economic Despatch	North Eastern Regional Load Despatch Centre (NERLDC), Grid Controller of India Ltd. (GRID-INDIA), Guwahati	Guwahati	25/09/2024 – 27/09/2024
26.	Dr. Anirban Dasgupta	Supervised learning	IISER Bhopal	Online	27/09/2024
27.	Dr. Manoj B R	Neural networks	Jointly with IIT Delhi and TimesPro	India (Virtual)	05/10/2024
28.	Dr. Manoj B R	Neural networks	Jointly with IIT Delhi and TimesPro	India (Virtual)	06/10/2024
29.	Dr. Ravindra Kumar Jha	Introduction to electrical components for drones	TIH IIT Guwahati	Guwahati	11/10/2024
30.	Dr. Manoj B R	On integrated sensing and communication: Fundamentals and recent advances at Indo-French seminar on 6G wireless networks: Challenges and opportunities	Inria Saclay Centre	France	11/10/2024
31.	Dr. Ravindra Kumar Jha	Introduction to electronic components for drones	TIH IIT Guwahati	Guwahati	18/10/2024
32.	Dr. Parijat Bhowmick	Distributed control of AC microgrids	JNEC, Royal University of Bhutan	Deothang, Bhutan	19/10/2024
33.	Dr. Ravindra Kumar Jha	Basics of semiconductor devices	TIH IIT Guwahati	Guwahati	25/10/2024
34.	Dr. Parijat Bhowmick	Distributed cooperative control of drones	TIH, IIT Guwahati	Guwahati	25/10/2024
35.	Dr. Manoj B R	Radial basis function and K-means clustering	Jointly with IIT Delhi and TimesPro	India (Virtual)	26/10/2024
36.	Dr. Manoj B R	Support vector machine	Jointly with IIT Delhi and TimesPro	India (Virtual)	27/10/2024
37.	Dr. Ravindra Kumar Jha	Introduction to transistors	TIH IIT Guwahati	Guwahati	01/11/2024
38.	Dr. Anirban Dasgupta	Ensemble learning harnessing the power of multiple models in role of AI/ML in electrical, electronics, and biomedical engineering applications (RAEEBEA-2024)	NIT Rourkela	Online Mode	08/11/2024
39.	Dr. Anirban Dasgupta	Ensemble learning	Times Pro and IIT Delhi Online Certification Programme on ML and DL	Online Mode	09/11/2024 – 10/11/2024

40.	Dr. Sanjib Ganguly	Advanced Energy Storage Systems for Electric Vehicles	Department of Electrical Engineering, NIT Hamirpur, HP	Hamirpur	11/11/2024 – 15/11/2024
41.	Dr. Ravindra Kumar Jha	Basics of digital circuits	TIH IIT Guwahati	Guwahati	29/11/2024
42.	Dr. Manoj B R	Introduction to AI/ML/DL and data analysis	Jointly with IIT Delhi and TimesPro	India (Virtual)	30/11/2024
43.	Dr. Chayan Bhawal	Energy-optimal quadrotor flight: Unified path planning and controller tuning	IIT Guwahati (IEEE IES Student Branch)	IIT Guwahati	02/12/2024
44.	Dr. Chayan Bhawal	Maximizing quadrotor flight: Tuning for energy-optimal performance	IIEST Shibpur	Shibpur, West Bengal	05/12/2024
45.	Dr. Ravindra Kumar Jha	Introduction to logic gates and logic circuits	TIH IIT Guwahati	Guwahati	06/12/2024
46.	Dr. Ravindra Kumar Jha	Development of sustainable environmental gas sensors: A case study of NOx	NIT Durgapur	Durgapur	15/12/2024
47.	Dr. Ravindra Kumar Jha	Introduction to microsensors & nanosensors: Fundamentals to data analysis	IIT Kharagpur	Kharagpur	18/12/2024
48.	Dr. Sanjib Ganguly	Basics of power system studies on PSSE & Python programming for PSSE & OPF	North Eastern Regional Load Despatch Centre (NERLDC), Grid Controller of India Ltd. (GRID-INDIA), Guwahati	Guwahati	18/12/2024-20/12/2024
49.	Dr. Ravindra Kumar Jha	Rise of micro/nano sensors: Opportunity & challenges	IIT Kharagpur	Kharagpur	19/12/2024
50.	Dr. Parijat Bhowmick	Negative imaginary systems theory and its applications in multi-agent control	IIST Trivandrum	Online Mode	19/12/2024
51.	Dr. Ravindra Kumar Jha	Energy efficient gas sensors: Design strategies and fabrication approaches	KL University, Andhra Pradesh	Guntur	20/12/2024
52.	Dr. Ravindra Kumar Jha	Introduction to sensors for drone technology	TIH IIT Guwahati	Guwahati	27/12/2024
53.	Dr. Parijat Bhowmick	Control of networked ac microgrids using a cyber physical systems approach	NIT Rourkela	Online Mode	05/01/2025
54.	Dr. Parijat Bhowmick	Notion of cooperative control and its application in multi-agent systems	NSIT, Garia, Kolkata	Online Mode	06/01/2025, 10/01/2025
55.	Dr. Anirban Dasgupta	Introduction to machine learning	Multimedia Lab at Dept. of CSE, IIT Guwahati	IIT Guwahati	07/01/2025
56.	Dr. Anirban Dasgupta	Convolutional neural networks - II	Multimedia Lab at Dept. of CSE, IIT Guwahati	IIT Guwahati	08/01/2025
57.	Dr. Manoj B R	Adversarial machine learning	IIT Delhi	New Delhi	11/01/2025
58.	Dr. Manoj B R	Spectrum sharing between communication and radar systems	IIT Guwahati	Guwahati	17/01/2025
59.	Dr. Anirban Dasgupta	Ensemble learning	Times Pro and IIT Delhi Online Certification Programme on ML and DL	Online Mode	16/02/2025, 22/02/2025
60.	Dr. Parijat Bhowmick	Notion of multi-agent systems and its application to distributed control of islanded AC microgrid	IEEE PELS, IIT Guwahati	Guwahati	17/01/2025
61.	Dr. Parijat Bhowmick	Control of networked AC microgrids using a cyber physical systems approach	NIT Patna	Online Mode	25/01/2025

62.	Dr. Parijat Bhowmick	Cooperative control of multi-agent systems: Theory and practice	IIEST Shibpur, West Bengal	Shibpur, West Bengal	21/02/2025
63.	Dr. Anirban Dasgupta	Smart cars enabling driver safety	CSE Dept., IIT Guwahati	Guwahati	26/02/2025
64.	Dr. Manoj B R	Security threats in machine learning-enabled wireless systems	Faculty Development Program on 5G-V2X and Network Security, IIT Guwahati	IIT Guwahati	26/02/2025
65.	Dr. Nawaz Hussain	AI based Technologies for Electrical Engineering Applications	JNTUA College of Engineering, Anantapur, Andhra Pradesh	Online Mode	10/02/2025-20/02/2025
66.	Dr. Parijat Bhowmick	Notion of multi-agent systems and its application to distributed control of islanded AC microgrids	IIT Bhubaneswar	Bhubaneswar, Odisha	07/03/2025
67.	Dr. Ravindra Kumar Jha	Introduction to electronic sensors	IIT (ISM) Dhanbad	IIT (ISM) Dhanbad	07/03/2025
68.	Dr. Ravindra Kumar Jha	Fabrication strategies of modern microsensors	IIT (ISM) Dhanbad	IIT (ISM) Dhanbad	07/03/2025

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks
1.	Dr. Sanjoy Kumar Parida	Dept. of EE, IIT Patna	Importance of WADC in RESs integrated power system	16/06/2024	IEEE IES, PES, PELS Guwahati Chapters
2.	Prof. Prashant Kumar	Assistant Professor School of Materials Science and Engineering Nanyang Technological University, Singapore.	Synergistic approaches for precision in material engineering: Defects, synthesis and applications	05/07/2024	Organized by IEEE Sensors Council
3.	Dr. Anik Kumar Samanta	Danfoss India Innovation Center	AI in Hydraulics: Pump health monitoring and drawing rebranding	10/08/2024	Organized in Research & Industrial Conclave RIC 2024
4.	Dr. Ayan Mukherjee	TCS Research & Innovation	AI in Healthcare: ECG and PCG use cases	10/08/2024	Organized in Research & Industrial Conclave RIC 2024
5.	Mr. Bhanu Kiran Mergoju	Founder of MadScientist Startup	The Mad Scientist effect: Revisualising tech discussions & scientific information sharing with centralized aggregation	09/09/2024	Organized by IEEE Student Branch
6.	Dr. Ram Prasad Gandhiraman	CEO, Space Foundry Inc	Plasma jet technology for surface functionalization & printed electronics manufacturing	17/09/2024	Organized by IEEE Sensors Council
7.	Prof. Prasanta Kumar Guha	E&ECE Dept., IIT Kharagpur	Nano-material employed gas sensors and their applications	20/09/2024	Organized by IEEE Sensors Council
8.	Dr. Hari Krishna Garg	National University of Singapore	Blockchain & cryptos for identity management	25/09/2024	IEEE ComSoc event

9.	Mr. Soubhadra	QuTech, TU Delft (Delft University)	Building blocks of a quantum network and requirements for teleportation	26/09/2024	Organized by IEEE Student Branch
10.	Prof. P. B. Sujit	IISER Bhopal	Reinforcement learning algorithms for robotic applications	04/10/2024	EEE Department Distinguished Lecture series
11.	Prof. Enakshi Bhattacharya	IIT Madras	A versatile low temperature oxide with applications in MEMS and RRAM devices	07/10/2024	Organized by IEEE Electron Devices Society and Sensors Council
12.	Dr Manashita Bora	Tezpur University	Synergy of physics-informed machine learning and fractional-order control for next-gen batteries	18/10/2024	EEE Department Distinguished Lecture series
13.	Dr. Sibsambhu Kar	Staff Engineer, Qualcomm India Private Limited	AI model optimization strategies	21/10/2024	Organized by IEEE Power and Energy Society
14.	Prof Mayank Shrivastava	IISc Bangalore	Why Ph.D.? – Breaking the myths and misconceptions about PhD and a guide to becoming a successful researcher	24/10/2024	IEEE Student Branch Chapter and IEEE Sensors Council
15.	Prof. Mayank Srivastava	IISC Bengaluru	A roadmap for disruptive applications & heterogeneous integration using 2-dimensional materials: State-of-the-art and technological challenges	24/10/2024	Organized by IEEE Sensors Council
16.	Prof. Saif Khan Mohammed	IIT Delhi	Zak-OTFS – The waveform for 6G communication systems	25/10/2024	Organized by IEEE Communications Society
17.	Dr. Niharika Baruah	PDF, University of Manchester, UK	Alternative dielectrics for power systems applications	08/11/2024	IEEE Power and Energy Society
18.	Vinothkumar K	Hitachi Energy	HVDC system and grids – Enabler for energy transition	13/11/2024	IEEE Power and Energy Society
19.	Dr. Arun Singh	University of Tartu, Estonia	End-to-end learning with differentiable optimization	15/11/2024	EEE Department Distinguished Lecture series
20.	Dr. Kaustav Jyoti Borah	JMP Solutions, Toronto	Nonlinear filtering and reinforcement learning for multi agent systems	20/11/2024	IEEE ComSoc event
21.	Prof. Rajesh Kumar	MNIT Jaipur	Intelligent power management and control of electric drive in electric vehicles using reinforcement Learning	04/12/2024	IEEE Industrial Applications Society

22.	Prof. Darbha Swaroop	Texas A&M University	Routing a collection of UAVs	11/12/2024	EEE Department Distinguished Lecture series
23.	Dr. Sudhir Dixit	Board Member & Working Group Chair at the Wireless World Research Forum (WWRF)	Towards the internet of senses: Integrating human mind, body, and IoT in 6G!	19/12/2024	IEEE ComSoc event
24.	Dr. Suman Chatterjee	Quantum Matter Institute, University of British Columbia, Vancouver	2D material-based optoelectronic devices - Valleytronics and twistronics	03/01/2025	IEEE Electron Devices Society
25.	Dr. Amit Kumar Singha	IIT Mandi	Need for dead time optimization in GaN based converters	06/01/2025	IEEE Power Electronics Society
26.	Prof. K. Shanti Swarup	IIT Madras	Academic and industry oriented electrical power systems research at IIT Madras	08/01/2025	IEEE Power and Energy Society
27.	Mr. Sailesh Purohit	Technical Marketing Manager (Asia Pacific), DuPont specialty Products Pvt Ltd	High temperature insulation systems for the power transformers	30/01/2025	IEEE Power and Energy Society
28.	Dr. Raj Dabre	NICT, Japan	Addressing the data and modeling challenges in NLG for Indian languages	27/02/2025	Online mode
29.	Mr. Vikram Dharmraj Singh	Entuple Technologies	Workshop on basic Ansys HFSS training	20/03/2025	Conducted by IEEE MTT-S in online mode
30.	Dr. Mahesh Angira	NIT Hamirpur	Deciphering MEMS technology: Spotlight on sensors and actuators	28/03/2025	IEEE MTT-S, IEEE Sensors Council

AWARDS AND HONOURS

- Dr. Laxmi Narayan Sharma: Felicitation, Sitajakhala Dugdha Utpadak Samabai Samiti Ltd, Amlighat, Jagiroad, Assam
- Dr. Debabrata Sikdar: JPCM Emerging Leaders 2023, Journal of Physics: Condensed Matter, IOP Publishing
- Dr. Tanmay Dutta: Young Scientist Award, Govt. of Assam
- Dr. Parijat Bhowmick: Academic Excellence Award 2024, Institute of Scholars (InSc), Govt. of India

STUDENTS' ACHIEVEMENTS

Mr. Ashish Kumar: Scholarship Award under C-DOT's STAR Program, C-DOT
Dr. Kuleen Kumar (IPDF): Best Presentation, International Conference on Semiconductor Materials and Manufacturing Technology (ICSMMT-2024)

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
1.	Anirban Dasgupta	IIT Kharagpur	Assistant Professor	Deep learning, federated learning, Internet of Things (IoT) applied to smart cities, smart transportation, smart education, smart healthcare
2.	Ankush Bag	IIT Kharagpur	Associate Professor	Wide bandgap semiconductors, power semiconductor devices, deep UV photodetector
3.	Arun B Aloshious	IIT Madras	Assistant Professor	Quantum computation, quantum error correction, coding theory.
4.	Arun Tej Mallajosyula	IIT Kanpur	Associate Professor	photovoltaics, neuromorphic computing, organic and flexible electronics, emerging memory devices, ReRAM crossbar memories, green hydrogen generation
5.	Ashwini Sawant	Ulsan National Institute of Science and Technology (UNIST), South Korea	Assistant Professor	Gyrotrons, vacuum electronic devices, orbital angular momentum (OAM) communication, metamaterial structures
6.	Chandan Kumar	IIT Madras	Associate 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
7.	Chayan Bhawal	IIT Bombay	Assistant Professor	Optimal control, DAE systems, model order reduction, multi-agent systems, chaos theory, robust control
8.	Chitralekha Mahanta	IIT Delhi	Professor	Control system theory and applications, control of nonlinear uncertain systems, artificial intelligence based control, identification and control of nonlinear systems
9.	Debabrata Sikdar	Monash University, Australia	Associate Professor	Plasmonics and metamaterials, light–matter interaction in nanoscale, dynamic tuning in plasmonic metamaterials and metadevices, plasmon-assisted optical switching, directional scattering, wideband absorption, ultrasensitive detection, tunable optical devices etc., electrovariable nanoplasmonic devices
10.	Devendra Jalihal	University of Duke, Durham	Professor	Statistical Signal Processing, Detection and Estimation Theory, Digital Communication.
11.	Gaurav Trivedi	IIT Bombay	Professor	VLSI, HPC, embedded systems, IoT, computer architecture, electronic system design and manufacturing (ESDM), quantum computing, hardware security
12.	Hanumant Singh Sekhawat	University of Twente, The Netherlands	Associate Professor	System theory, applied mathematics & signal processing

13.	Harshal B. Nemade	IIT Bombay	Professor	Electronic instrumentation, systems design and integration, analog circuits, electronic product development, EMI/EMC issues, ultrasonic measurement, non-destructive testing, underwater acoustic systems, surface acoustic wave devices, and MEMS
14.	Indrani Kar	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
15.	Kalpana Dhaka	IIT Delhi	Associate Professor	Channel modeling and resource allocation for wireless relay systems, cooperative communications, multihop relaying, and multicasting in wireless networks.
16.	Kannan Karthik	University of Toronto	Associate Professor	Image and video forensics, biometric counter-spoofing, privacy preserving computation and analysis, multimedia encryption
17.	Kuntal Deka	IIT Guwahati	Assistant Professor	Communication, error correcting codes and information theory
18.	Mahima Arrawatia	IIT Bombay	Assistant Professor	Energy harvesting, RF circuit design, microstrip antennas
19.	Manas Kamal Bhuyan	IIT Guwahati	Professor	Image and video processing, computer vision, pattern recognition and human computer interactions (HCI)
20.	Manish Bhatt	IISc Bangalore	Assistant Professor	Medical Imaging, Image reconstruction, Inverse Problems
21.	Manoj B. R.	IIT Delhi	Assistant Professor	Wireless communications, deep learning for wireless communications and signal processing, adversarial machine learning, joint sensing and communications, buffer-aided relaying networks, Markov chains and their applications
22.	Mohammed Mosaddique Nawaz Hussain	IIT Bombay	Assistant Professor	Applications of machine learning in power electronics: Condition monitoring, predictive maintenance and model-free control. Model Predictive control of power electronic systems. Solid-state transformers. Electric vehicle chargers.
23.	Parijat Bhowmick	IIT Kharagpur	Assistant Professor	Robust control, negative-imaginary systems, passivity-based control and dissipativity, vibration control of flexible structure systems, cooperative control of multi-agent systems (including multi-robot systems), control of smart/micro-grid systems using cyber-physical systems approach
24.	Prabir Barooah	University of California, Santa Barbara	Professor	Distributed control, optimization and coordination, with applications to power grid operation, green buildings, energy sustainability and energy resiliency
25.	Praveen Kumar	Delft University of Technology, The Netherlands	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
26.	Praveen Tripathy	IIT Kanpur	Associate Professor	Power systems
27.	Prithwijit Guha	IIT Kanpur	Associate Professor	Computer vision, machine learning, deep learning, signal processing
28.	Rajesh Alentallil	IIT Kanpur	Associate Professor	Coding and modulation techniques
29.	Ramesh Kumar Sonkar	IIT Kanpur	Associate Professor	Silicon photonics, integrated photonics, fiber lasers optoelectronics device characterization and fabrication, microelectronics and III-V compound semiconductors, photonics integrated circuits, fiber optics communication, non-invasive measurement of physiological parameters of human blood, structural health monitoring, antennas, vacuum electron devices
30.	Ratnajit Bhattacharjee	Jadavpur University	Professor	Electromagnetics, microstrip antennas, microwave engineering, wireless communication
31.	Ravindra Kumar Jha	IIT Kharagpur	Assistant Professor	Electronic sensor, wireless sensor networks, IoT enabled sensors, AI-ML for sensor data analysis, device modelling, fabrication of the devices, interface circuit design & development, data analysis and interpretation of in-house fabricated sensors
32.	Ravindranath Adda	IIT Kanpur	Associate Professor	Power electronics, distributed generation and power quality
33.	Rakesh Singh Kshetrimayum	NTU Singapore	Professor	Electromagnetic band gap, filters, metamaterials, computational electromagnetics and periodic structures
34.	Ribhu	IIT Roorkee	Assistant Professor	Signal processing for wireless communication, MIMO systems, adaptive and statistical signal processing
35.	Rishikesh Dilip Kulkarni	Ecole Polytechnique Federale de Lausanne	Associate Professor	Digital holography, speckle metrology, interferometry, digital signal processing
36.	Rohit Sinha	IIT Kanpur	Professor	Speech and audio processing, speech recognition, signal processing
37.	Roy Paily Palathinkal	IIT Madras	Professor	Devices, VLSI and MEMS
38.	Salil Kashyap	IISc Bangalore	Associate 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

39.	Samarendra Dandapat	IIT Kanpur	Professor	Signal processing, speech processing, biomedical signal & image processing, biomedical instrumentation
40.	Sanjib Ganguly	IIT Kharagpur	Associate Professor	Power distribution system planning and optimization, distributed generation, custom power devices, evolutionary algorithms, multi-objective optimization
41.	Shaik Rafi Ahamed	IIT Kharagpur	Professor	Adaptive signal processing, mobile communications, VLSI signal processing, biomedical signal processing
42.	Shabari Nath	University of Minnesota	Associate Professor	Power electronics, application of power electronics to power systems
43.	Sisir Kumar Nayak	IISc Bangalore	Professor	Nanofluid for transformer, metamaterial enhanced WPT, PV integration with grid
44.	Smarajit Das	IISc Bangalore	Assistant Professor	Information theory, error correcting codes
45.	Somanath Majhi	University of Sussex, Brighton, UK	Professor	Relay based identification and auto tuning, control systems, control theory applications
46.	Sonali Chouhan	IIT Delhi	Associate Professor	Wireless sensor networks, coding theory, wireless communications
47.	Sreenath J G	IIT Kanpur	Assistant Professor	Power system state estimation, cyber-security in power systems, applied signal processing for power system monitoring, synchrophasor technology applications, stability and control of networked microgrids
48.	Srinivasan Krishnaswamy	IIT Bombay	Associate Professor	Control Systems, cryptography
49.	Sudarshan Mukherjee	IIT Delhi	Assistant Professor	Next generation wireless communications, specifically, edge computing, ultra-dense networks, signal processing for large scale antenna systems in doubly spread channels (i.e., cell-free/collocated massive MIMO systems, OTFS modulation etc.) etc.
50.	Suresh Sundaram	IISc Bangalore	Associate Professor	Pattern recognition, image / video processing and computer vision
51.	Tanmay Dutta	National University of Singapore	Assistant Professor	Semiconductor devices, memory technologies, spintronics, magnetism, quantum materials
52.	Tony Jacob	IIT Kanpur	Associate Professor	Statistical signal processing and information theory

Humanities and Social Sciences

YEAR OF ESTABLISHMENT OF THE DEPARTMENT: 1998

ACADEMIC PROGRAMMES OFFERED: M.A. in Development Studies, MA in Liberal Arts & Ph.D.

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.

Sleep & Cognition Lab: The Sleep & Cognition 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.

Archaeological Sciences Laboratory: The laboratory is used for facilitating research in the area of Archaeological Sciences. The facilities include soil testing (ph, organic carbon, calcium carbonate), sample processing facilities for SEM-EDX experiments, XRD, FTIR, etc experiments. Polaroid Microscope is available for reading petrographic slides for material analysis of artifacts like pottery, stone tools, sediments etc . Color identification, texture analysis, particle size, particle shape and other optical properties is also done. Tritration setup, GPS, calipers of various sizes are available for students work.

English Language Training Lab: This is for the compulsory audit course on English Language training in the Btech programme. The software Wordsworth English Language Lab Software is used for the purpose. Besides courses on ELT are also offered to PG students of the institute using the laboratory facilities.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

SI No.	Item name	Quantity	Price
1	Paper Shredder	1	7000
2	STATA SE 18 Software (15-users license) Renewal	1	262328
3	Laser Projector	1	142000
4	Laptop	3	192601
5	Industrial AC	1	650000
6	Printer	4	133600
7	Xerox machine (Konica Minolta-Bizhumb 306i, Konica Minolta Bizhub 205i)	2	193500
8	Desktop computer	30	1555003
9	LCD Monitor	1	74686

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 and History. 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, Common Wealth Literature, Aesthetics, Cultural Studies, Ecocritism 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 (09-12-2024 to 10-12-2024)

The department organizes its flagship research conference Graduate Research Meet (GRM) every year. The event is organized by research students of the HSS department. This conference is open to all research students around the country. In the last academic year, the GRM was held between 9 to 10 December 2024, spanning two intensive days of academic presentations and discussions. The theme of GRM 2024 was “Power, Movement, and Memory”. The conference programme was strategically divided into 15 different thematic sessions. Each session was carefully curated to facilitate meaningful academic exchange and provide adequate time for both presentations and substantive discussions. During the event, 70 high-quality research papers were presented across multiple disciplines, showcasing the breadth and depth of contemporary graduate research in the humanities and social sciences. The keynote speaker was Mr. Stanley Johny, the noted journalist and international affairs editor of The Hindu. Aanchal Malhotra, the noted author and oral historian, gave the endnote talk about the politics of memory and displacement of India's Partition of 1947.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL

Sl. No.	Name of Faculty	Name of Conf. /Workshop	Institute	Place	Date
1	Ngamjahao Kipgen	IV International Research Conference Interaction. Integration. Inclusion: labyrinths of meanings and horizons of opportunities	International Laboratory for Social Integration Research, HSE University	Online	2024-08-05
2	Bidisha Som	The 12th European Conference on Language Learning (ECLL24),	University of London	London	2024-07-11
3	Bidisha Som	Research Scholars’ Conclave	IIIT Guwahati	Guwahati	2024-05-24
4	Pahi Saikia	47th Annual Meeting Political Psychology	Holli Semetko, Emory University Kiran Arabaghatta Basavaraj, University College London Anup Kumar, Cleveland State University Subhasish Ray, O.P. Jindal Global University Pahi Saikia, Indian Institute of Technology Yashwant Deshmukh, CVoter	Santiago, Chile	2024-07-04

5	Priyankoo Sarmah	Interspeech 2024	ISCA	Kos, Greece	2024-08-31
6	Rohini Mokashi-Punekar	Feminist and Queer Spatialities: Care, Connection and Change	The School of Geography, University College Dublin	Dublin, Ireland	2024-08-21
7	Mrinal Kanti Dutta	6th International Conference on Development and Economy	University of Peloponnesse	Kalamata, Greece	2024-10-11
8	Sambit Mallick	49th All India Sociological Conference	BML Munjal University	Gurugram	2024-12-22
9	Bidisha Som	VISLANG'24	Tilburg University	Netherlands	2024-06-27
10	Bidisha Som	AmLapAsia	National University of Singapore	Singapore	2024-12-05
11	Bidisha Som	AmLapAsia	National University of Singapore	Singapore	2024-12-05
12	Bidisha Som	ICOLSI	University of Kashmir	Srinagar	2024-10-03
13	Rajshree Bedamatta	Annual Conference of the Indian Society of Labour Economics	Institute for Social and Economic Change	Bengaluru	2025-01-09
14	Prabhu Venkataraman	98th and 99th Joint Session of Indian Philosophical Congress	Department of Philosophy, Annamalai University	Chidambaram, Tamilnadu	2024-12-18
15	Arupjyoti Saikia	Asian Borderlands: Cross-Border Exchange and Extraction in Modern History	University of Bern	University of Bern	2024-09-02
16	Arupjyoti Saikia	Energy History and Environmental Sustainability	University of Chicago	New Delhi	2024-05-03
17	Pahi Saikia	Language endangerment and Political Violence	Department of Political Science, University of North Texas, USA		2024-05-14
18	Pahi Saikia	United States Indo-Pacific Strategy: North-Eastern Dialogue	ORF, Kolkata	ORF, Kolkata (Online)	2024-09-30

19	Rituparna Patgiri	Food Studies Workshop	Department of Social Sciences, School of Liberal Education, FLAME University, Pune	Pune	2024-12-27

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	**Name of Lecture**	**Name of Inst./Org.**	**Place**	**Date**
Arupjyoti Saikia	Power, Voice and the Buranjis: Rethinking Assamese Historical Thoughts	North Lakhimpur College	North Lakhimpur College	2024-05-24
Bidisha Som	Diversity in Unity: Inputs from processing study in Indian languages	ISI Kolkata	Kolkata	2025-01-15
Bidisha Som	Language and Culture	IIT Patna	Patna	2024-11-14
Bidisha Som	Psycholinguistics and language endangerment: an unlikely collaboration	JNU	New Delhi	2025-03-04
Bidisha Som	Pan- NIT Humanities and Social Sciences Research Conclave (HSSRC)'	NIT Warangal	Warangal,	2024-05-28
Bidisha Som	language learning tools.	Central University of South Bihar	Gaya	2024-12-10
Mrinal Kanti Dutta	Quality Education and Regional Economic Development	University of Science and Technology Meghalaya	Khanapara, Meghalaya	2024-07-16
Mrinal Kanti Dutta	16th Finance Commission: Assam Chapter	North Eastern Hill University, Shillong, Meghalaya		2024-05-14
Mrinal Kanti Dutta	Changing Contours of Agriculture in NE India	OKD Institute of Social Change and Development Guwahati		2024-10-04
Ngamjahao Kipgen	Indigenous Knowledge, Development and Sustainability	UGC-MMTTC, Mizoram University	Online	2024-07-09

Ngamjahao Kipgen	Indigenous Knowledge, Development and Sustainability in the Context of Northeast India	Mizoram University, Ugc - Malaviya Mission Training Center	Online	2025-02-05
Ngamjahao Kipgen	Awareness of Trends and Technology in Sociology	University of Science and Technology Meghalaya	Ri-Bhoi	2024-09-13
Ngamjahao Kipgen	Quality Research: Ethical Considerations and Integrity	University of Science and Technology Meghalaya	Ri-Bhoi	2025-02-15
Ngamjahao Kipgen	Hydropower Projects, Resistance, and Environmentalism in Northeast India	UGC-MMTTC, Mizoram University	Online	2024-05-23
Pahi Saikia	State-making practices:India's strategic borderlands in the Northeast	IIT Hyderabad	Liberal Arts Department	2024-10-16
Pahi Saikia	Status of Ethnopolitical Conflicts in India's Northeast	University of North Texas	University of North Texas	2024-06-26
Prabhu Venkataraman	Ethical reflections on Euthanasia	Annamalai University	Chidambaram, Tamilnadu	2024-09-19
Priyankoo Sarmah	Voiced and voiceless laterals in Mizo	Research Institute for Languages and Cultures of Asia and Africa (ILCAA)	Tokyo	2024-10-05
Priyankoo Sarmah	Linguistics to machine learning, An interdisciplinary journey	NIT Meghalaya	Shillong	2024-04-01
Priyankoo Sarmah	Acoustics of Speech in Low-Resource Languages: An Indian Perspective	Acoustical Society of India	Vishakhapattanam	2024-09-26
Priyankoo Sarmah	NEP and Pedagogy in Northeastern languages	NIT Meghalaya	Sohra	2024-11-15
Priyankoo Sarmah	Learning for machines: Insights from acoustic analyses	KLEF University	Vijayawada	2024-12-11
Priyankoo Sarmah	*Machine learning in low-resource languages, Experience with Mizo Phonetics and Phonology*	International Christian University	Tokyo	2024-09-30

Rajshree Bedamatta	Challenges of Implementation of NEP 2020 – Issues Internship, Exchange, Projects and Placements	KKH State Open University	Guwahati	2024-12-18
Rajshree Bedamatta	Economic Frameworks of Education Financing	Assam University	Online	2024-09-20
Rajshree Bedamatta	Higher Education in the Categorisation of Economic Goods: Public Good or Private Good?	National Institute of Education Planning and Administration	Online	2024-08-30
Rajshree Bedamatta	Neoliberalism and Higher Education in India	National Institute of Education Planning and Administration	Online	2024-08-30
Rajshree Bedamatta	Keynote Lecture: Engendering Economics: Why Gender is Not Just a Variable!	Tripura University	Agartala, Tripura	2025-02-24
Rajshree Bedamatta	Introduction to Qualitative Research	Mahapurusha Srimanta Sankaradeva Vishwavidyalaya	Guwahati	2025-02-04
Rituparna Patgiri	Eating Healthy Food in Urban India: The Role of Digital Technology	Humboldt-Universität zu Berlin	Berlin	2024-05-31
Rituparna Patgiri	From Tradition to Innovation - Reimagining Food, Culture and Society	University of Madras, Chennai	Chennai	2025-02-04
Rituparna Patgiri	Navigating the Field as a Participant Ethnographer: Issues of Access, Positionality and Privacy	Summer School of the Center for Climate Resilience, University of Augsburg	Augsburg	2024-05-29
Rituparna Patgiri	Navigating the Field As a Participant Ethnographer: Issues of Access, Positionality and Privacy	Jindal School of International Affairs (JSIA), O. P. Jindal Global University (JGU), Sonipat	Sonipat	2024-08-24
Rituparna Patgiri	The Politics of Healthy Food: Global and Local Issues in Urban India	Department of Sociology, St. Mira’s College for Girls, Pune	Online	2024-09-23
Rituparna Patgiri		Manipal Academy of Higher	Online	2025-01-23

		Education, Bengaluru		
Rituparna Patgiri	Selective Reporting and Misrepresentation of Data	University of Hyderabad	Online	2024-11-28
Rituparna Patgiri	The Practice of Sociology in Contemporary Times: An Overview	Cotton University, Guwahati	Guwahati	2024-04-20
Rituparna Patgiri	The Social and the Digital: The Politics of Food and Technology in Urban India	O.P. Jindal Global University (JGU), Sonipat	Online	2024-10-21
Sambit Mallick	Pedagogic Innovations in Sociology in the 21st Century	FLAME University	Pune	2025-03-08
Sambit Mallick	Research Design and Planning	University of Science & Technology Meghalaya	Meghalaya	2025-01-20
Sambit Mallick	Intellectual Property Rights and Patenting	All India Institute of Medical Sciences	Guwahati	2025-01-03
Sambit Mallick	Social Shaping of Technology	Indian Institute of Technology Jammu	Jammu	2025-03-19
Sambit Mallick	Technology–Society Interface	Government Model College, Kaziranga	Virtual	2024-06-24
Sambit Mallick	Statistics for Social Scientists	Indian Sociological Society	Virtual	2024-06-23
Sambit Mallick	SPSS	Indian Sociological Society	Virtual	2024-06-23
Sambit Mallick	STS Studies: Looking Back to Look at the Future	Jawaharlal Nehru University	New Delhi, virtual	2025-03-07
Sambit Mallick	ICTs and Society	University of Allahabad	Allahabad	2024-08-03
Sambit Mallick	Technology in Social Sciences	University of Science and Technology Meghalaya	Meghalaya	2024-07-08
Sambit Mallick	Technology-Society Interface	Royal Global University	Guwahati	2024-04-05
Sambit Mallick	Research: Nature, Statement of the Problem, Hypotheses, Research Questions	Nagaland University, Lumami Campus	Lumami	2024-05-21

Sambit Mallick	Review of Literature and Theoretical and Conceptual Frameworks	Nagaland University, Lumami Campus	Lumami	2024-05-21
Sambit Mallick	Qualitative Research Methods	Mo Gaon Shiksha Parishad	Virtual	2024-05-19
Sambit Mallick	Technology–Society Interface	Department of Sociology, University of Lucknow	Lucknow	2024-06-04
Sambit Mallick	Technology, Development and the State	Department of Sociology, Nagaland University, Lumami Campus	Virtual	2024-06-05
Sambit Mallick	Methodological Pluralism	Indian Institute of Technology Tirupati	Tirupati	2024-08-23
Sukanya Sharma	Radio Carbon Dating of Archaeological Site in Digaru-Kolong River Valley, Assam	Directorate of Museums	Assam	2025-01-04
Sukanya Sharma	Tradition of Ancient Indian Materialism	Malaviya Mission Teacher Training Centre (MMTTC), (Formerly UGC-HRDC) at Maulana Azad National Urdu University,	Hyderabad	2024-09-03
Sukanya Sharma	The Goal of Mankind is Knowledge	Maulana Azad National Urdu University	Hyderabad	2024-07-03
Vasundhara Jairath	Land titling, security and land rights: Contextualising Mission Basundhara in Assam	Ashank Desai Centre for Policy Studies, IIT Bombay	Mumbai	2024-04-10
Vasundhara Jairath	Demanding land rights in Assam, India: Private property and its critique from below	Development Studies Association, UK		2024-05-13

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
1	Prof. Emeritus K. Krishnan	The Maharaja Sayajirao University Of Baroda	Compositional-Analysis-of-Archaeological-Ceramics:-Challenges-and-Prospects	2024-06-11

2	Dr Kevezai Tureng	Fazl Ali College, Mokokchung, Nagaland	Rule-Following:-Is-it-Implicit-or-Explicit?	2024-08-02
3	Prof. Ratheesh Radhakrishnan	Jawaharlal Nehru University, New Delhi	Aloshy's-Economic-Futures:-Plantation-Horror-in-Malayalam-Cinema	2024-08-30
4	Dilip Sinha	Former Ambassador & Permanent Representative	Tibet:-The-Neighbour-India-Lost	2024-09-12
5	Ayush Singhal	Policy and Governance, Bangalore	Early-Career-in-Policy,-Governance-and-Development	2024-09-23
6	Jyotishman Mudiar	University of Chicago	Higher-studies-and-research-trends:-examining-'the-local'-and-'the-global'	2024-09-28
7	Pradeep Chaturvedi, Joint Secretary (Ret), Parliament of India	Rajya Sabha, Parliament of India	The-Law-making-Process	2024-10-07
8	Prof. Mitul Baruah	Ashoka University.	Assam-in-the-grip-of-a-"slow-disaster":-Narratives-from-Majuli-River-Island	2025-01-29
9	Dr. Tejas Parasher	Political Theory at the University of California, Los Angeles	Radical-Democracy-in-Modern-Indian-Political-Thought	2025-02-12

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	Pahi Saikia, Shakuntala Mahanta	Language endangerment and Political Violence	University of North Texas, USA	14th May 2024	International	50
2	Vasundhara Jairath	Graduate Research Meet	ICSSR	09-12th December 2024	National	100
3	Priyankoo Sarmah	Modelling linguistic diversity and prosodic typology with machine learning	Ministry of Higher Education	20-24th January 2025	National	40

STUDENTS' ACHIEVEMENTS

- Upasana Hazarika: Charles Wallace India Trust Short Research Grant, British Council
- Upasana Hazarika: ICSSR Data Collection Abroad Grant (2024), Indian Council of Social Science Research

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
01	Barua Anamika	University of Leeds	Professor	Climate Change and Water security, Ecological Footprint, Virtual Water flows through trade,Water governance including transboundary water governance
02	Basu Debapriya	Jadavpur University	Associate Professor	English and European Renaissance literature, early modern English women's writing, women's literary history, gender and genre, poetics and gender, theatre, textual editing and bibliographical studies, translation, digital humanities theory and practice (text technologies, TEI-XML, hypertextualities, digital archives, the digital early modern)
03	Bedamatta Rajshree	University of Calcutta	Professor	Food security, Nutrition, and Public Health
04	Das Debarshi	Jawaharlal Nehru University	Professor	Development Economics, Political Economy, Macroeconomics
05	Das Liza		Professor	Cultural Studies
06	Dutta Mrinal Kanti	Gauhati University	Professor	Agricultural Economics, Environmental Economics, Regional Economic Development
07	Dutta Vipul	Kings College London	Assistant Professor	South Asian Diplomatic & Military History ; Indian Business History
08	Hussain Dilwar	IIT Kanpur	Professor	Psychology of Trauma, Psychology of Well-being
09	Jairath Vasundhara	University of Delhi	Assistant Professor	Social Movements, Development and Displacement, Indigenous Politics, Latin America, Decolonisation of Knowledge
10	Jha Mithilesh Kumar	University of Delhi	Assistant Professor	Political theory, Political thought in comparative perspectives particularly Indian and western political thought, Indian politics especially language and related issues of state formation in modern India
11	Kashyap Abhishek	IIT Bombay	Assistant Professor	Research Interests: Philosophy of Science, Philosophy of Physics, Bayesian Epistemology, Social Epistemology
12	Kashyap Naveen	IIT Bombay	Professor	Sleep and Information Processing, Human Memory
13	Keshavamurthy Kiran	University of California, Berkeley	Assistant Professor	Modern Indian Literatures

14	Kipgen Ngamjahao	Indian Institute of Technology Delhi	Associate Professor	Environmental sociology, political sociology, religion and cultural politics
15	Madhusoodanan Subha Visakh	IIT Madras	Assistant Professor	Religion in the Modern World | Self, Identity and Politics | Space, Place and Belonging | Social Theory
16	Mahanta Amarjyoti	Jawaharlal Nehru University	Associate Professor	Game Theory, Auction Theory, Industrial Organization
17	Mahanta Shakuntala	Utrecht University, The Netherlands	Professor	Theoretical Phonology, Acoustic Phonetics and perception, Information Structure, Tone and intonation
18	Mallick Sambit	University of Hyderabad	Professor	Sociology of Science and Technology; Historical Sociology; Philosophy of the Social Sciences
19	Neog Bhaskar Jyoti	IIT Kharagpur	Assistant Professor	Labour Economics; Climate Change; International Trade; Economics of Education; Development Economics
20	Patgiri Rituparna	Jawaharlal Nehru University	Assistant Professor	Digital Sociology, Pedagogy, Sociology of Culture, Sociology of Food, Sociology of Gender, Sociology of Media
21	Prabhu Venkataraman		Professor	
22	Punekar Rohini Mokashi	Gujarat University	Professor	Translation, Postcolonial Studies, Culture Studies, Indian Writing in English and Modern British Literature.
23	Ray Sawmya	University of Hyderabad	Professor	Gender Violence and Law, Sex Trafficking and Sex Work,Gender and Legal Pluralism, Caste in Urban Spaces.
24	Saikia Arupjyoti	University of Delhi	Professor	Economic, environmental and political history of modern Assam
25	Saikia Pahi	McGill University	Professor	International Relations; Foreign Policy between India and neighbouring countries; Ethnic identity politics, tribes and indigenous people in Northeast India; Governance & political development in developing areas; Security issues in borderlands Asia; Social movements and conflict prevention.
26	Sarkar Agnirup	Durham University	Assistant Professor	Macroeconomics, Monetary Economics, Finance
27	Sarmah Priyankoo	University of Florida	Professor & Head	Phonetics and phonology of vowels and tones, Tibeto-Burman languages, language technology development, speech perception, speech recognition

28	Sengupta Bodhisattva	McGill University	Associate Professor	Public Economics and Policy, Dynamic Economic Theory
29	Sharma Sukanya	Deccan College PG & Research Institute	Professor	Archaeology
30	Som Bidisha	Jawaharlal Nehru University	Professor	language processing, culture and cognition, social linguistics.
31	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 19th Century Travancore; History of Missionary Encounter in South Asia.
32	Tripathi Nachiketa	IIT Kanpur	Professor	Organizational Behaviour, HRM and Social Psychology

Mathematics

YEAR OF ESTABLISHMENT OF THE DEPARTMENT: 1995

ACADEMIC PROGRAMMES OFFERED:

Bachelor of Technology in Mathematics & Computing [Four Year Programme]

Master of Science in Mathematics and Computing [Two Year Programme]

Master of Science in Mathematics [Two Year Programme]

Doctor of Philosophy in Mathematics

Master of Technology in Data Science [Two Year Programme] Jointly offered with the Dept. of CSE and EEE

LABORATORY FACILITIES

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

Maths E1-block Laboratory : Seating capacity : 138 (ground floor) + 154 (2^{nd} Floor) = 292

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. Almost all the 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

DELL Optiplex 7010 Tower Desktop	25 Nos.	14,91,048.00
3TR Industrial Precision AC on buyback basis (Make: Vertiv, Model: Liebert SRC11ET)	02 Nos.	12,98,600.00
CCTV camera on buyback basis (Make: Dahua)	01 Ser	2,49,772.00
Digital high speed multifunctional Photocopier on buyback basis (Make: Riso, Model: FT1430)	1 No.	18,67,749.00
Audio visual items for seminar hall	1 set	21,22,756.00

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL

Sl. No.	Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
01	Dr. Subhamay Saha	11th World Congress in Probability and Statistics	Bochum, Germany	12/08/2024-16/08/2024	International
02	Prof. Ashok Singh Sairam	IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS) 2024	IIT Guwahati, Guwahati, India	15/12/2024 – 28/12/2024	International
03	Prof. Rafikul Alam	*3rd International (online) Workshop on Advanced Topics in Mathematics*	IIIT Naya Raipur	16/12/2024-20/12/2024	International
04	Prof. Rafikul Alam	*IISER TVM Frontier Symposium-Mathematics 2025*	IISER Thiruvananthapuram	17/01/2025-19/01/2025	National
05	Dr. Satyajit Pramanik	Applied Mathematics Symposium on Differential Equations: Theory, Computation, and Beyond (hybrid)	SRM University AP, Amravati	28/12/2024	International
06	Prof. Swaroop Nandan Bora	Equadiff 2024 (Conference on Differential Equations and Their Applications)	Karlstad University, Sweden	10/06/2025 - 14/06/2025	International

07	Prof. Swaroop Nandan Bora	Modeling, Analysis and Simulation 2024	IIT(ISM) Dhnabad	28/06/2024 - 30/065/2024	National
08	Prof. Swaroop Nandan Bora	International Conference on Recent Advances in Fluid Mechanics and Nanoelectronics	Manipal University Jaipur	10/07/2024 - 12/07/2024	National
09	Prof. Swaroop Nandan Bora	National Conference on Theoretical and Numerical Approaches in Water Wave Mechanics	VIT Vellore	16/12/2024 - 17/12/2024	National
10	Prof. Swaroop Nandan Bora	National Conference on Recent Developments in Mathematical Sciences	University of Hyderabad	05/02/2025 - 07/02/2025	National
11	Prof. Gautam Kumar Das	Frontiers of Geometric Algorithms	IISc, Bangalore	11/12/2024-15/12/2024	International
12	Prof. Anupam Saikia	International Conference on Lie Algebra and Number Theory (ICLANT - 2024)	NIT Calicut	10/06/2024-14/06/2024	International
13	Prof. Anupam Saikia	International Conference on Class Groups of Number Fields and Related Topics (ICCGNFRT-24)	IISER Berhampur	20/11/2024-24/11/2024	International
14	Prof. Anupam Saikia	International Conference on Diophantine Equations, Polynomials & Related Areas (ICDEPRA) - 2024	ISI Delhi	26/11/2024-30/11/2024	International
15	Prof. Anupam Saikia	International Conference on Number Theory and Related Topics (ICNTRT) - 2024	IMSc, Chennai and IIT Madras	16/12/2024-18/12/2024	International
16	Prof. Anupam Saikia	The 39th Annual Ramanujan Mathematical Society (RMS) Conference	Christ University, Bangalore	27/12/2024-29/12/2024	International
17	Prof. Anupam Saikia	Recent Advances in Mathematics and Related Areas	SRM University, Andhra Pradesh	14/01/2025-19/01/2025	International
18	Prof. Rajen Kumar Sinha	2nd International Conference on Recent Advances in Applied Mathematics (RAAM 2024)	IIT (BHU), Varanasi	03/07/2024-05/07/2024	International
19	Prof. S. Natesan	International Conference on Scientific Computation and Differential Equations (SciCADE-2024)	National University of Singapore Singapore	15/07/2024 – 19/04/2024	International
20	Prof. S. Natesan	The 14th AIMS Conference o Dynamical Systems, Differential Equations and Applications.	New York University, Abu Dhabi, UAE	16/12/2024 – 20/12/2024	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Sl. No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
01	Dr. Subhamay Saha	Probability Symposia in RMS 2024	Christ University	Bangalore	28/12/2024
02	Prof. Siddhartha Pratim Chakrabarty	Single Event Transition Risk (SETR): Carbon-transition Premium to Carbon-transition Risk	IIT Madras	Chennai (Lecture delivered in Online Mode)	04/06/2025
03	Dr. Satyajit Pramanik	Dissolution-induced natural convection: A Stefan problem	Indian Institute of Technology Hyderabad	Hyderabad, India	22/01/2025

04	Dr. Satyajit Pramanik	Deformation-driven Mixing in a Soft Porous Medium	Indian Institute of Technology Hyderabad	Hyderabad, India	23/01/2025
05	Dr. Satyajit Pramanik	Dissolution-induced natural convection: A Stefan problem (delivered online)	SRM University AP	Amravati, AP	28/12/2024
06	Prof. Swaroop Nandan Bora	Diffusive wave model in a channel of finite length with a concentrated lateral inflow	Karlstad University	Karlstad, Sweden	12/06/2024
07	Prof. Swaroop Nandan Bora	Mitigation of wave forces on a rigid floating structure in finite depth ocean in the presence of different breakwaters	IIT(ISM) Dhanbad	Dhanbad	29/06/2024
08	Prof. Swaroop Nandan Bora	Modeling open channel flows through Saint-Venant equations	Manipal University Jaipur	Jaipur	10/07/2024
09	Prof. Swaroop Nandan Bora	Some physical and mathematical aspects of ocean and river Engineering	NIT Uttarakhand	Srinagar	25/10/2024
10	Prof. Swaroop Nandan Bora	Mechanics and mathematics: unparallel rhythm and harmony	NIT Arunachal Pradesh	Jote	07/11/2024
11	Prof. Swaroop Nandan Bora	Mechanics and mathematics: walking hand in hand	Tezpur University	Tezpur	29/11/2024
12	Prof. Swaroop Nandan Bora	Water wave mechanics: emphasizing on a feasible theoretical approach toward application	VIT Vellore	Vellore	16/12/2024
13	Prof. Swaroop Nandan Bora	Getting acquainted with some special functions	Tezpur University	Tezpur	23/12/2024
14	Prof. Swaroop Nandan Bora	A friendly look at Green's function and integral equations	Tezpur University	Tezpur	23/12/2024
15	Prof. Swaroop Nandan Bora	Studying lateral inflow in a finite length channel through Saint-Venant equations	University of Hyderabad	Hyderabad	05/02/2025
16	Prof. Swaroop Nandan Bora	Modelling and simulation of time-dependent problems in large water bodies	Dibrugarh University	Dibrugarh	21/02/2025
17	Prof. Swaroop Nandan Bora	Open channel flows: studying lateral inflow through Saint-Venant equations	VIT Vellore	Vellore	20/03/2025
18	Prof. Swaroop Nandan Bora	Some important mathematical tools for fluid dynamics	Bharathiyar University	Coimbatore	21/03/2025
19	Prof. Swaroop Nandan Bora	Ocean wave propagation and open channel flows: basic theory and some applications	Bharathiyar University	Coimbatore	21/03/2025
20	Prof. S. Pati	Some Mathematical Problems.	Training Olympiad Students	KV-IITG	August 2024
21	Prof. S. Pati	Linear Algebra Fundamentals.	Advances in Graph Theory and Linear Algebra	VIT-AP University	Oct 2024
22	Prof. S. Pati	Dominant eigenvalue and universal winners of digraphs.	National Conference On The Recent Developments in Mathematical Sciences	University of Hyderabad	Feb 2025
23	Prof. Rajen Kumar Sinha	Residual-based a posteriori error estimates for nonconforming finite element approximation to parabolic interface problems	IIT (BHU)	Varanasi	03/07/2024
24	Prof. S. Natesan	International conference on Recent Advances in Applied Mathematics (RAAM 2024)	IIT (BHU)	Varanasi	03/07/2024-05/07/2024

25	Prof. S. Natesan	3rd International Conference on Applied Mathematics in Science and Engineering (AMSE-2024)	Centre for Data Science & Department of Mathematics, Siksha 'O' Anusandhan	Bhubaneswar	25/07/2024-27/07/2024
26	Prof. S. Natesan	National Conference on Recent Advances in Mathematics and its Applications (NCRAMA-2024)	National Institute of Technology	Rourkela	28/09/2024-29/09/2024
27	Prof. S. Natesan	International Conference On Optimization with Artificial Intelligence and Soft- Computing, 2024 (ICOAISC- 2024)	NIT	Nagaland	30/09/2024-01/10/2024
28	Prof. S. Natesan	Annual Conference of the Indian Society for Mathematical Modelling and Computer Simulations (ISMMACS)	South Asian University	New Delhi	29/11/2024-01/12/2024
29	Prof. S. Natesan	Advances in Differential Equations and Numerical Analysis	Periyar University	Salem	20/02/2025-21/02/2025
30	Prof. S. Natesan	3rd International Conference on "Recent Advances in Applied Mathematics (RAAM 2025)	University of Colombo	Sri Lanka	04/03/2025-06/03/2025
31	Prof. S. Natesan	International Conference on Applied Mathematics and Computing (ICAMC 2025)	Bharathiar University	Coimbatore	20/02/2025-21/02/2025

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks
01	Dr. Riddhipratim Basu	ICTS, Bangalore	To deliver Seventh Jyoti Prasad Medhi Memorial Annual Lecture	8/11/24	xxx
02.	Mr. Dominik Welte	Offenburg University, Germany	For a joint Indo-German project	14-12-2024 to 21-12-2024	

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
01	Dr. Subhamay Saha and Dr. Chandan Pal	AIS on Stochastic Processes and Applications	National Centre for Mathematics	13th May, 2024 to 25th May, 2024	National	35
02	Prof. Ashok Singh Sairam (TPC Co-Chair)	IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS) 2024	IEEE Communication Society	15 - 28 December 2024	International	250
03	Dr. Satyajit Pramanik (International organizing secretary)	3rd International Conference on Recent Advances in Applied Mathematics (RAAM – 2025) held at University of Colombo, Sri Lanka	N/A	04/03/2025 – 06/03/2025	International	35
04	Dr. Satyajit Pramanik (Co-organizer)	Applied Mathematics Symposium: Applied Analysis of PDE (online)	N/A	19/04/2024	International	50 (approx.)
05	Dr. Satyajit Pramanik (Organizing committee member)	Workshop cum Mini-Symposium on Partial Differential Equations	National Board for Higher	23/12/2024 – 28/12/2024	National	32

			Mathematics, Department of Atomic Energy, Govt. of India			

AWARDS AND HONOURS

- Dr. Subhamay Saha: Jyotiprasad Medhi Award in Mathematical Sciences, Medhi Foundation
- Prof. Ashok Singh Sairam: Senior Member, Association for Computing Machinery (ACM)
- Dr. Satyajit Pramanik: NASI-Membership 2024, The National Academy of Sciences, India (NASI), Prayagraj
- Prof. Sukanta Pati: Joined Editorial Board,Indian Journal of Discrete Mathematics, Academy of Discrete Mathematics and Applications.

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
01	Dr. Rafikul Alam	IIT Bombay	Professor	Numerical Functional Analysis, Numerical Linear Algebra
02	Dr. Rupam Barman	IIT Guwahati	Professor	Number Theory
03	Dr. Shreemayee Bora	IIT Guwahati	Professor	Eigenvalue Problems, Spectral Perturbation Theory
04	Dr. Swaroop Nandan Bora	Technical University of Nova Scotia (now called DalTech, Dalhousie University), Halifax, Nova Scotia, Canada.	Professor	Water Wave Mechanics, River Mechanics, Sloshing Dynamics, Flow through Porous Media, Differential Equation, Fractional Differential Equation
05	Dr. Siddhartha Pratim Chakrabarty	University of Illinois at Chicago, Chicago, USA	Professor	Mathematical Finance and Mathematical Biology
06	Dr. Durga Charan Dalal	IIT Kharagpur	Professor	Computational Fluid Dynamics, Two-phase Flows
07	Dr.Gautam Kumar Das	Indian Statistical Institute, Kolkata	Professor	Computational Geometry, Approximation Algorithms, Wireless Networks
08	Dr. Bhupen Deka	IIT Guwahati	Professor	Numerical Analysis, Finite Element Method, Interface Problems
09	Dr. Jiten Chandra Kalita	IIT Guwahati	Professor	Computational and Topological Fluid Dynamics, Numerical methods for Partial Differential Equations, Mathematical Biology

10	Dr. Kalpesh Kapoor	London South Bank University, U.K	Professor	Blockchain Science and Technology, Word Combinatorics
11	Dr. K V Krishna	IIT Delhi	Professor	General Algebra, Theoretical Computer Science
12	Dr. Partha Sarathi Mandal	Indian Statistical Institute(ISI), Kolkata (degree awarded by Jadavpur University), India	Professor	Distributed Algorithms for Swarm Robots Algorithmic aspects of Wireless Sensor Networks Approximation Algorithms for Sweep Coverage Localization, Secure localization Fault-Tolerant Distributed Algorithms Self-stabilization
13	Dr.Sukanta Pati	Indian Statistical Institute, Delhi	Professor	Spectral Graph Theory; Matrix Theorey
14	Dr. M Guru Prem Prasad	IIT Kanpur	Professor	Complex Dynamics and Fractals
15	Dr. Anupam Saikia	University of Cambridge, UK	Professor	Number Theory
16	Dr. Ashok Singh Sairam	IIT Guwahati	Professor	Computer Networks and Network Security
17	Dr. Bhaba Kumar Sharma	University of Delhi	Professor	Combinatorial Matrix Theory (Graph Spectra, Matrix Completion Problems) Finite Fields and applications in Cryptography
18	Dr. N Selvaraju	IIT Madras	Professor	Queueing Theory, Financial Mathematics, Stochastic Modelling, Operations Research
19	Dr. Rajen Kumar Sinha	IIT Bombay	Professor	Numerical Analysis (Numerical Anaysis of PDEs)
20	Dr. Natesan Srinivasan	Bharathidasan University	Professor	Numerical solution to Differential Equations, Numerical Homogenization
21	Dr. Bikash Bhattacharjya	IIT Kanpur	Associate Professor	Graph Theory
22	Dr. Arbin Kumar Dey	IIT Kanpur	Associate Professor	Distributions, models and Applications; Machine learning and Time Series Analysis ; Advanced Statistical Algorithms; System Biology, Biomedical Applications, Ensemble Learning
23	Dr. Pratyoosh Kumar	IIT Kanpur	Associate Professor	Harmonic Analysis

24	Dr. Rajesh Srivastava	IIT Kanpur	Associate Professor	Harmonic Analysis
25	Dr. Jitendriya Swain	IIT Madras	Associate Professor	Harmonic Analysis
26	Dr. Sweta Tiwari	IIT Delhi	Associate Professor	Differential Equation
27	Dr. Vinay Wagh	University of Pune	Associate Professor	Algebraic Geometry
28	Dr. Sriparna Bandopadhyay	Indian Statistical Institute, Delhi	Assistant Professor	Linear Algebra, Matrices
29	Dr. Anjan Kumar Chakrabarty	IIT Kanpur	Assistant Professor	Functional Analysis
30	Dr. Arup Chattopadhyay	JNCASR Bangalore	Assistant Professor	Functional Analysis and Operator Theory
31	Dr. Sagarmoy Dutta	IIT Kanpur	Assistant Professor	Quantam Computing, Complexity Theory
32	Dr. Ayon Ganguly	IIT Kanpur	Assistant Professor	Life Time Data Analysis
33	Dr. Palash Ghosh	Indian Statistical Institute, Kolkata	Assistant Professor	Statistics and Biostatistics, Q-learning (Reinforcement Learning) and Dynamic Treatment Regime (DTR), Personalized Medicine, Ordinal Outcome and Ordinal Regression, Multi-Sample Likelihood, Case-Control Study, Design and Analysis of Clinical Trials, Analysis of Electronic Medical Records Data and Surveillance (COVID-19)
34	Dr. P A S Sree Krishna	University at Buffalo, The State University of New York, USA	Assistant Professor	low dimensional topology hyperbolic geometry hyperbolic manifolds
35	Dr. Chandan Pal	IIT Bombay	Assistant Professor	Stochastic Control Theory and Mathematical Finance
36	Dr. Satyajit Pramanilk	IIT Ropar	Assistant Professor	Mathematical Modelling, Scientific Computing, Flow Through Porous Media
37	Dr. H Ramesh	IIT Madras	Assistant Professor	Formal Languages and Automata Theory, Unconventional Models of Computing (In particular Membrane Computing)

38	Dr. Shubhamay Saha	IISc Bangalore	Assistant Professor	Probability and Stochastic Process
39	Dr. K V Srikanth	University at Buffalo, The State University of New York, USA	Assistant Professor	Low Dimensional Topology
40	Dr. Syamashree Upadhyay	Chennai Mathematical Institute, Chennai	Assistant Professor	Algebraic Combinatorics

Mechanical Engineering

YEAR OF ESTABLISHMENT OF THE DEPARTMENT: 1995

ACADEMIC PROGRAMMES OFFERED:

Bachelor of Technology (BTech) in

i. Mechanical Engineering

Master of Technology (MTech) in

(1) Machine Design,

(2) Fluid and Thermal Engineering,

(3) Manufacturing Science and Engineering,

(4) Computational Mechanics,

(5) Aerodynamics and Propulsion

Doctor of Philosophy (PhD)

LABORATORY FACILITIES

Department Labs:

- 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.
- 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 diff erent 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.
- 3D Printer Laboratory: Provides facilities for 3D printing.

Department Research Labs: 19 Research Labs

- Dynamics and Vibration Lab
- AnuPravaha CFD Lab
- Biomedical Devices and Biomaterials laboratory
- Biomimetics and Artificial Intelligence Laboratory
- CFD Lab
- Composite Structures and Fracture Mechanics Lab: Caters to the development of composite laminates and enables NDT through ultrasonic scanning of the composite structures.
- Computational Mechanics and Optimization Lab
- Electromechanics and Microsystems Lab
- Gas Dynamics Lab
- Materials and Design in Mechanical Systems & Science and Technology in Traditional Systems
- 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.
- Micro-machining Lab
- Microfluidics and Microscale Transport Processes Laboratory
- Miniature Thermal Systems Research Laboratory
- Precision Manufacturing Lab
- Smart Materials and Structures Lab
- Thermal Hydraulics and Gasification Lab
- Welding Lab
- Wind Tunnel Laboratory: Provides facilities for carrying out wind tunnel related experiments.

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Fluids and Thermal Engineering	Machine Design Engineering	Manufacturing 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	• Acoustics • Active Materials • Composites • Dynamics and Vibrations • Finite Element Method and Analysis • Fracture Mechanics and Design • Mechatronics • Robotics and Control • Micromechanics • Nanocomposites • Rolling Element Bearings Design and Analysis • Smart Structures • Tribology	• 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

Sl.No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
1.	Uday S. Dixit	Material Characterization Techniques" in One-Week High-End workshop on "Micromachining and Microfabrication for Biomedical Devices	IIITDM Kancheepuram	IIITDM Kancheepuram	April 3, 2024
2.	Uday S. Dixit	Mechatronic system for Drone Applications	TIH IIT Guwahati and C-DAC Kolkata	IIT Guwahati	April 16, 2024
3.	Uday S. Dixit	IKS and NEP2020	Royal Global University, Assam in collaboration with Bhartiya Shikshan Mandal, Uttar Assam Prant	Royal Global University, Assam	April 25, 2024
4.	Uday S. Dixit	IKS and NEP2021	Utkal University, Bhubaneswar	Online	May 9, 2024
5.	Uday S. Dixit	Material Characterization Technique	PDPM IIITDM Jabalpur	PDPM IIITDM Jabalpur	May 11, 2024
6.	Uday S. Dixit	Bhartiya Paramparik Gyan	Centre for Indian Knowledge Systems (CIKS) at NIT Calicut	Online	May 27, 2024
7.	Uday S. Dixit	Electrical Discharge Hybrid Machining Processes	Department of Production Engineering at NIT Agartala	Online	June 17, 2024
8.	Uday S. Dixit	Engineering Education Seminar "Empowering next generation engineers"	ASME, India Foundation	LNMIT Jaipur	August 31, 2024
9.	Uday S. Dixit	IKS: Importance of Puranas	Malaviya Mission Teacher Training Centre MMTTC, Utkal University, Bhubaneswar	Online	September 6, 2024
10.	Uday S. Dixit	Relevance of the Puranas in the modern age	Himalaya Calling, Global Summit: Challenges & Opportunities in the Himalayas	Online	September 10, 2024
11.	Uday S. Dixit	Deming's Philosophy of Total Quality Management: Comparison with other prominent philosophies and Indian Knowledge System	Executive Development Program(EDP) on 'Quality Engineering and Management(QEM)' organized by IIT(ISM) - Industry Institute Interaction Facility (IIIF)	Online	September 20, 2024
12.	Uday S. Dixit	Mechatronic Systems for Drone Applications	CET-IITG	IIT Guwahati	November 7, 2024
13.	Uday S. Dixit	Indian Knowledge System and NEP 2020	"Vikasit Bharat 2047-Atmanirbhar North East" organized by NIT Meghalaya	NIT Meghalaya	November 15-16, 2024

14.	Uday S. Dixit	Digital Twin in Manufacturing: Challenges and Roadmaps	International Conference on Recent Innovations and Developments in Mechanical Engineering (IC-RIDME 2024), organized by Department of Mechanical Engineering, NIT Meghalaya	NIT Meghalaya	November 14-17, 2024
15.	Uday S. Dixit	Optimization Through the Lens of Engineers versus Mathematicians	International Conference on Modelling, Simulation and Optimization, COMSO 2024, organized by NIT Silchar	NIT Silchar	November 16-18, 2024
16.	Uday S. Dixit	Digital Manufacturing: Challenges and Roadmaps	International Conference on Mechanical, Aerospace and Metallurgical Engineering 2024 (INCOMAME2024), NITTTR Kolkata	NITTTR Kolkata	November 22-23, 2024
17.	Uday S. Dixit	AI Applications in Manufacturing Sector	Department of Computer Applications & Research and Development Committee, Mangalmay Institute of Management and Technology	Mangalmay Institute of Management and Technology	December 16, 2024
18.	Uday S. Dixit	Roadmap for Developing Digital Twins in Manufacturing	Modeling and Application of AI/ML in Engineering", Organized by Department of Mechanical Engineering, NIT Agartala	NIT Agartala	
19.	Uday S. Dixit	Technology in Education	Northeast Educator's Conclave, organized by Assam Downtown University	Assam Downtown University	December 21, 2024
			University		
20.	Uday S. Dixit	Keynote speaker in Silver Jubilee function	Jawahar Navodaya Vidyalaya, Darrang	Jawahar Navodaya Vidyalaya, Darrang	December 22, 2024
21.	Uday S. Dixit	Indian Knowledge System and NEP2020	Malaviya Mission Teacher Training Centre MMTTC, Utkal University, Bhubaneswar	Online	January 21, 2025

22.	Uday S. Dixit	Design Methodology for Young Entrepreneurs	Design Thinking for Innovation and Entrepreneurship" organized by NITTTR Bhopal	Online	February 10, 2025
23.	Uday S. Dixit	Indian and Indigenous Knowledge Systems (IIKS)	CIKS & IQAC, Assam Don Bosco University, in association with IIT Guwahati and RIWATCH, Arunachal Pradesh	Assam Don Bosco University	February 21-22, 2025
24.	Uday S. Dixit	Interactive sessions with school students	PM Shri J.N.V. Darrang	PM Shri J.N.V. Darrang	February 28, 2025
25.	Uday S. Dixit	Indian Knowledge Systems in Sanskriti Conclave 2025	CIT Kokrajhar	CIT Kokrajhar	March 1-2, 2025
26.	Uday S. Dixit	Modelling and simulation of manufacturing processes	Department of Mechanical Engineering, IIT (ISM) Dhanbad	IIT (ISM) Dhanbad	45724
27.	Pranab Kumar Mondal	Phytofluidics: Perspectives and Potentiality	Manipal University Jaipur	Jaipur	July 10-12, 2024
28.	Pranab Kumar Mondal	Unravelling Flow and Plant Root Growth Mysteries using Phytofluidics	2nd International Conference on Innovations in Thermo-Fluid Engineering and Sciences (ICITFES-2025), NIT Rourkela, India	NIT Rourkela , India	February 7-9, 2025
29.	Pranab Kumar Mondal	Phytofluidics: Digital Solution for Climate Smart Farming	HRD Programme on Strategizing Climate Resilient Agriculture Through Innovative and Frontier Technological Interventions for Improved Livelihood Security of Tribal Farmers, ICAR Research Complex for NEH Region, Meghalaya, India	Umiam, Meghalaya, India	March 3-10, 2025
30.	Pranab Kumar Mondal	Microscale transport: Modelling and simulations	ISI Kolkatta	Kolkatta, West Bengal	January 22-24, 2025
31.	Sashindra Kumar Kakoty	Industry, Innovation, and Infrastructure: The Role of Appropriate Technology in Overcoming the Challenges Faced by the Indian Rural Sector.	ICESCC 2024 Kaziranga University	Kaziranga University	November 7-8, 2024
32.	Niranjan Sahoo	Boundary layer transition experiment in a supersonic flight	Manoj Prakash Memorial Lecture 2024, Department of Aerospace Engineering	Indian Institute of Science Bangalore	December 9, 2024

33.	Niranjan Sahoo	Measurement Diagnostics for Hypersonic Shock Tunnels	Hypersonic Wind Tunnel Facility, CAS	Centre for Advanced System (CAS), DRDO, Hyderabad	December 23, 2024
34.	Niranjan Sahoo	Invitation as Guest of Honour for inaugural session of workshop on "Wonders of Control Engineering via Drone Flying and Electric Vehicles"	Centurion University of Technology and Management	Bhubaneswar	December 16-18, 2024
35.	Tarkes Dora Pallicity	Field Statistics and Effective Viscoelasticity of Fibrous Composites	IIT Kanpur	Kanpur	March 17-19, 2025
36.	Tarkes Dora Pallicity	Development of Digital Twin of Glass Lens Molding Process	AICTE ATAL FDP: Advanced Manufacturing in the Context of Industry 4.0 & Industry 5.0	Online	February 17-21, 2025
37.	Poonam Kumari	Fabrication and Characterization of two-layered PZT-ZrO 2 discs through Cold Isostatic Pressing for Improved life	ASMP 2024, IIT Madras	Madras	December 5-7 2025
38.	Poonam Kumari	Fabrication and characterization of PZT/Fe-based FGM for energy harvesting applications	5th International conference Kathmandu symposia on advanced materials	Kathmandu, Nepal	October 22-24 2024
39.	Ujjwal K. Saha	Publishing Research Papers in Energy	ASSET 2025	IIT Guwahati	January 02, 2025
40.	Ujjwal K. Saha	Publishing in ASME Journals: An Authors' Workshop	ASME Authors' Workshop for the Asia Pacific Region	Online	December 02, 2024
41.	Ujjwal K. Saha	Rules of Everyday Writing	CICPS-CET Certificate Course in Drone Training Program	IIT Guwahati	November 21, 2024
42.	Ujjwal K. Saha	How to Publish in ASME Journals	NERIST	Nirjuli, Arunachal Pradesh	November 14, 2024
43.	Ujjwal K. Saha	Aviation Through the Ages	CICPS-CET Certificate Course in Drone Training Program	IIT Guwahati	October 24, 2024
44.	Ujjwal K. Saha	History of Indian Space Travel	CICPS-CET Certificate Course in Drone Training Program	IIT Guwahati	October 17, 2024
45.	Ujjwal K. Saha	JAM/GATE 2025 Outreach Activity	Nowgong College	Nagaon, Assam	September 27, 2024
46.	Ujjwal K. Saha	JAM/GATE 2025 Outreach Activity	Anandaram Dhekial Phookan College	Nagaon, Assam	September 27, 2024
47.	Ujjwal K. Saha	JAM/GATE 2025 Outreach Activity	Royal Global University	Guwahati	September 25, 2024
48.	Ujjwal K. Saha	JAM/GATE 2025 Outreach Activity	Arya Vidyapeeth College	Guwahati	September 25, 2024

49.	Ujjwal K. Saha	Small Wind and Hydro Power Systems	EEI (Southern Region), Hyderabad	Online	September 11, 2024
50.	Ujjwal K. Saha	Mastering Technical Writing	NERIST	Nirjuli, Arunachal Pradesh	August 31, 2024
51.	Ujjwal K. Saha	Chandrayaan 3: India's Path to the Moon	NERIST	Nirjuli, Arunachal Pradesh	August 30, 2024
52.	Ujjwal K. Saha	Social Benefits of Spacecraft and Satellites, National Space Day Lecture	NIT Meghalaya	Shillong, Meghalaya	August 23, 2024
53.	Ujjwal K. Saha	How to Write a Research Paper	SRM University, Chennai	Chennai	August 16, 2024
54.	Ujjwal K. Saha	Writing and Publishing a Scientific Paper	NIT Mizoram, Aizwal	Online	August 08, 2024
55.	Ujjwal K. Saha	Zero-head Turbines for Power Generation	NIT Mizoram, Aizwal	Online	August 08, 2024
56.	Ujjwal K. Saha	Strategies of Thesis Writing	NIT Meghalaya	Shillong, Meghalaya	July 10, 2024
57.	Ujjwal K. Saha	Field Testing of Hydrokinetic Turbines, Keynote Lecture	IIT Roorkee	Online	July 06, 2024
58.	Ujjwal K. Saha	Wind Tunnel Research	IIT (ISM) Dhanbad	Dhanbad	June 17, 2024
59.	Ujjwal K. Saha	Effective Presentation Skills	Tezpur University	Tezpur, Assam	May 30, 2024
60.	Ujjwal K. Saha	Craft of Thesis Writing	NIT Silchar	Silchar, Assam	May 02, 2024
61.	Ujjwal K. Saha	Aerospace Vehicles: A General Overview	IIT Guwahati	Guwahati	April 20, 2024
62.	Ujjwal K. Saha	How to Write a Good Project Report	IIT Guwahati	Guwahati	April 10, 2024
63.	Ujjwal K. Saha	Rockets and Missiles of India	Nowgong Polytechnic	Nagaon, Assam	April 05, 2024
64.	Ujjwal K. Saha	Gas Turbine Propulsion and Power	Nowgong Polytechnic	Nagaon, Assam	April 04, 2024
65.	RK Mittal	Digital Transformation to Industry 5.0: AI, Analytics, Blockchain & Robotics	NIT Silchar	Silchar Assam	26 July, 2024
66.	Manmohan Pandey	Thermal Management using Miniature Loop Heat Pipes and Miniature Heat Sinks	Workshop on Thermal Management Using Active and Passive Cooling Methods	IIT (ISM) Dhanbad (online)	13 December 2024
67.	Sajan Kapil	Multi-Axis Multi-Material Wire Arc Additive Manufacturing (MAMM-WAAM)	IITK Outreach Center Noida	Noida	22-Mar-25
68.	Sajan Kapil	Real-world problem-solving and component development for defense	MNIT Jaipur	Online	04-Mar-25
69.	Sajan Kapil	Large to small scale industrial applications of Wire Arc Additive Manufacturing process	IIT Guwahati	Guwahati	04-Mar-25
70.	Sajan Kapil	Powdere - Bed Fusion: In-direct Routes	NIELIT Calicut, Kozhikode	Online	22-Jan-25
71.	Sajan Kapil	Powdere - Bed Fusion: Direct Routes	NIELIT Calicut, Kozhikode	Online	20-Jan-25

72.	Sajan Kapil	Build Strategies for Large Scale Additive Manufacturing	IIT Bombay	Bombay	09-Jan-25
73.	Sajan Kapil	Implementation of a Sustainability Manufacturing	AMTRON Silchar	Online	21-Dec-24

		Process in Education System			
74.	Sajan Kapil	Large – Scale Additive Manufacturing	NIELIT Calicut, Kozhikode	Online	18-Dec-24
75.	Sajan Kapil	Introduction to Additive Manufacturing	NIELIT Calicut, Kozhikode	Online	18-Dec-24
76.	Sajan Kapil	Toolpath Planning for Additive Manufacturing	IIT Palakkad	Palakkad	12-Dec-24
77.	Sajan Kapil	Industrial applications of Additive Manufacturing: Case studies	IIT Mandi	Online	08-Dec-24
78.	Sajan Kapil	Large – Scale Additive Manufacturing via robotic cells	IIT Mandi	Online	07-Dec-24
79.	Sajan Kapil	Wire Arc Additive Manufacturing	St. Joseph's institute of Technology, Chennai	Online	08-Nov-24
80.	Sajan Kapil	Introduction to Kinematics of Machinery	IIT Guwahati	Guwahati	27-Sep-24
81.	Sajan Kapil	Wire Arc Additive Manufacturing	Ganpat University	Online	27-Sep-24
82.	Sajan Kapil	Role of Computer-Aided Process Planning for Additive Manufacturing of Large-to-small scale objects	CSIR – Central Scientific Instruments Organisation	Chandigrah	27-Sep-24
83.	Sajan Kapil	Multi-Axis Multi-Material Wire Arc Additive Manufacturing (MAMM-WAAM)	IGSTC: Chennai	Chennai	11-Sep-24
84.	Sajan Kapil	Role of AM in Product Lifecycle Enhancement	Stryker Global Technology Center Pvt. Ltd	Online	31-Jul-24
85.	Sajan Kapil	Introduction to Laser Wire Additive Manufacturing and Industrial Applications	Phillips India, Additive	Online	24-Jul-24
86.	Sajan Kapil	Art to Part by 3D Printing Technologies	IIT Guwahati	Guwahati	26-Jun-24
87.	Sachin Singh Gautam	Isogeometric Contact Analysis – Review, Results, and Future Trends	Amity University, Noida	Noida	01-August-2024
88.	Amaresh Dalal	AnuPravaha: A General Purpose Indigenous CFD Solver for Multiphysics Applications	4th Biennial International Conference on Future Learning Aspects of Mechanical Engineering (FLAME - 2024)	Amity University, Noida	31 July – 2 August, 2024

89.	Amaresh Dalal	Heat Transfer Analysis of a Fin- tube Heat Exchanger using Shear- thinning Fluid and Winglet Type Vortex Generators	2nd International Conference on Fluid, Thermal, and Energy Systems 2024 (ICFTES24)	NIT Calicut	6 – 8 June, 2024
90.	Amaresh Dalal	CFD Studies on Thermal Management of Batteries	DST-SERB sponsored STTP on "Thermal Management Techniques"	Department of Mechanical Engineering, SVNIT Surat	21st November, 2024
91.	Amaresh Dalal	Introduction to Computational Fluid Dynamics	5-day training program for the officers of TATA STEEL Ltd.	Department of Mechanical Engineering, IIT Guwahati	27th September 2024 to 1st October 2024
92.	Ujendra Kumar Komal	Development of Sustainable Polymeric Composites	IIT Kanpur	Kanpur	March 17-19, 2005
93.	Ujendra Kumar Komal	Breaking Boundaries: Additive Manufacturing's Role in Next-Generation Composites	IIT Bombay	Mumbai	Jan 09-11, 2025
94.	Ujendra Kumar Komal	Manufacturing of Sustainable Next Generation Composites:			

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks
01	Prof. Cameron Tropea	Henry Ford Visiting Professorship Chair at IIT Madras and a VAJRA Faculty position at IISc Bangalore	Invited Lecture on 'Experimental Fluid Mechanics: Quo Vadis'	26th March, 2025	
02	Dr.-Ing Detlev Markus	PTB, Braunschweig , Germany	GIAN Course	25 November - 06 December 2024	
03	Prof. Marco Marengo	University of Pavia, Italy	Invited Talk on "Exploring Surface Wettability Effects on Boiling and Nucleation Phenomena"	20 January 2025	
04	Prof. Marco Marengo	University of Pavia, Italy	Invited Lecture on "Thermal Management for Space Exploration"	21 January 2025	
05	V. N. Vamsi	IIT Kgp	Invited Talk	19-Feb	
06	CVS Kiran	Skyroot Pvt. Ltd.	Invited Talk and Project Discussion	27-Feb-25	
07	Prof. Anupam Saxena	IIT Kanpur	Invited Talk on "Design of Hand Exoskeletons"	24-Feb-2025	

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.	Uday S. Dixit	Curtain raiser ceremony of Unravelling Indian Knowledge Across Asia (UNIKKA) 2024 (As Chairman of Organizing Committee)	NITs and CFTIs of Northeast India	April 6, 2024,	International	200
2.	Uday S. Dixit	ARDB Panel Meeting on Materials & Manufacturing at IIT Guwahati	NITs and CFTIs of Northeast India	May 17-18, 2024	National	200
3.	Uday S. Dixit	Research and Industrial Conclave-Integration'24, IIT Guwahati (As Chief Editor)		August 9-11, 2024,	National	1000

4.	Uday S. Dixit	8th National Young Historians' Seminar, 2024 (2nd Chapter), Centre for Indian Knowledge Systems (CIKS), IIT Guwahati, in collaboration with Akhil Bharatiya Itihas Sankalan Yojana (ABISY), New Delhi, Bharatiya Itihas Sankalan Samiti, Assam (As Chairman of Organizing Committee)	NITs and CFTIs of Northeast India	September 21-22, 2024	National	200
5.	Uday S. Dixit	International Conference on Unraveling Indian Knowledge Across Asia (UNIKAA), 2024, Centre for Indian Knowledge Systems (CIKS), IIT Guwahati, Indian Institute of Technology Ropar, Punjab, India MDS IndoCan. Inc Ottawa Canada, (As Chairman of Organizing Committee)	NITs and CFTIs of Northeast India, Northeast Council	October 3-5, 2024	International	800
6.	Uday S. Dixit	Think India: Northeast Summit 2025, Centre for Indian Knowledge Systems (CIKS), IIT Guwahati, (As Chairman of Organizing Committee).	NITs and CFTIs of Northeast India	February 22-23, 2025	National	500
7.	Niranjan Sahoo	Combustion Theory and Application, GIAN Course	IIT Hyderabad	25 November - 06 December 2024	International	30
8.	Poonam Kumari	Hands-on Training Workshop on Piezoelectric Sensor Development," IIT Guwahati	SERB	4th to 5th October 2024	National	30
9.	Sajan Kapil	Indo-German Industry Academia Symposium: Multi Material Wire Arc Additive Manufacturing	IGSTC	22th - 23th March 2025	International	67
10	Sajan Kapil	5-day 3D Printing Hands-on- training sessions for the Employees of Stryker	Stryker India	3-7 Jun-24	National	18
11	Sajan Kapil	One day mentorship prorgam for the participants of the 3D Printing Hackathon	AMTRON, 3DPCOE	26-Jun-24	National	>100
12	Sajan Kapil	AquaWars 02	TIH - IIT Guwahati	30-Aug-24 - 1-Sep-24	National	8 Teams
13	Sajan Kapil	AquaTech Innovators Hackathon	TIH - IIT Guwahati	17-Mar-25 - 21-Mar-25	National	9 Teams

14	Sajan Kapil	COE-Robotics and AI: Inaugration	PHN Technologies	18-Mar-25	National	>100
15	Sajan Kapil	3DPrinting for Defense Personnel	Directorate General Resettlement	Sep – Nov 2024	National	30
16.	Sukhomay Pal, Deepak Sharma and Pratul Chandra Kalita	Management Development Programme on General Management for Officers of the Department of Posts	North East Postal Circle, Shillong	10-11 February, 2025	National	21

AWARDS AND HONOURS

- Pranab Kumar Mondal: Top 10 most- cited papers, John Wiley & Sons, Inc., New York, USA
- Pranab Kumar Mondal: Outstanding Reviewer 2024, Royal Society of Chemistry (RSC)
- Poonam Kumari: Top cited article, Wiley
- Ujjwal K. Saha: Certificate of Instruction, ASME

STUDENTS' ACHIEVEMENTS

- Shubham Maurya **:** Distinguished Paper Award, IIT Hyderabad
- Amit Kumar: Best Poster Award, IIT Kanpur
- Prasun Roy and Parvez Mushraf: Award for prototype and product, PIWOT 2025 IIT Guwahati
- Ritam Sarma: Best Poster Award, IIT Bombay
- Kanak Jindal: Best Paper Award, NIT Warangal
- Rakesh Panda: Best Paper award, IIT Madras

FACULTY MEMBERS

Sl. No.	**Name**	**Name of the University/Institute/Org PhD degree received from**	**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.	Bandaru, Vinod	TU Ilmenau, Germany	Assistant Professor	Magnetohydrodynamics (MHD), Instabilities and relativistic electrons in tokamak plasmas, Turbulence, Computational methods in fluid dynamics and plasma physics
3.	Bandopadhya, Dibakar	IIT Kanpur	Associate Professor	Active materials, Artificial muscle materials, Smart structures, Robotics and mechanism, Composites, MEMS, Bio inspired design
4.	Banerjee, Atanu	IIT Kanpur	Associate Professor	Complaint Mechanism, Shape memory alloy, Bio-memetic devices
5.	Basireddy, Sandeep Reddy	IISc Bangalore	Assistant Professor	Nonlinear Dynamics of Mechanical Systems, Robotics and Control, Nonlinear Control for Underactuated Systems

6.	Basu, Dipankar Narayan	IIT Kharagpur	Associate Professor	Nuclear Thermalhydraulics, Supercritical Natural Circulation Loops, Domestic Air-conditioning, Computational Fluid Dynamics and Heat Transfer
7.	Biswas, Pankaj	IIT Kharagpur	Associate Professor	Manufacturing and Design: Computational weld mechanics, Solid state welding, Soft computing modeling of welding processes, FEM, Line heating
8.	Chakraborty, Debabrata	IIT Kharagpur	Professor	FRP, Composites, FEM, Fracture Mechanics and Design
9.	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
10.	Das, Manas	IIT Kanpur	Associate Professor	Advanced Finishing and Nano-finishing Processes, Non-traditional Machining Processes, Machining of Advanced Engineering Materials, Micromanufacturing, Micromachining, Tribology, Laser Welding
11.	Dass, Anoop K.	IISc Bangalore	Professor	Computational Fluid Dynamics and Turbomachines
12.	De, Arnab Kumar	IIT Kanpur	Associate Professor	Numerical Methods in Fluid Flow and Heat Transfer, Convection, Turbulence

13.	Deka, Nipal	IIT Bombay	Assistant Professor	Crystal Plasticity, Deformation Micro-mechanics, Computational and Experimental Fracture Mechanics, Microstructural Analysis
14.	Dixit, Uday S.	IIT Kanpur	Professor	Design and Manufacturing : FEM, Neural Network and Fuzzy Set Application; Mechatronics
15.	Dwivedy, Santosha K.	IIT Kharagpur	Professor & HOD	Non-linear Dynamics, Design and Robotics, vibrations
16.	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
17.	Hazarika, Shyamanta M.	University of Leeds, England	Professor	Robotics, Cognitive Systems, Knowledge Representation and Reasoning
18.	Joshi, Shrikrishna N.	IIT Bombay	Associate Professor	Micro fabrication: Laser micro forming, Micro machining: Micro electric discharge machining (EDM), Web based manufacturing, Process modeling and optimization of advanced manufacturing processes, Application of soft computing techniques in manufacturing
19.	Kakoty, Sashindra K.	IIT Kharagpur	Professor & Dean, Infrastructure, Planning and Management	Tribology, Duct Acoustics, Mechanical System Design, Rural Technology
20.	Kalita, Karuna	University of Nottingham	Associate Professor	Rotordynamics, Coupled Dynamics of Electro-Mechanical Systems, Vibration
21.	Kanagaraj, S.	IIT Kharagpur	Professor	Biomaterials, Carbon nanotubes based nanocomposites, Nanofluids, Materials characterization

22.	Kapil, Sajan	IIT Bombay	Assistant Professor	Rapid Manufacturing (3D Printing), Welding/Cladding Processes, CNC, Manufacturing Automation
23.	Khanikar, Prasenjit	North Carolina State University	Assistant Professor	Microstructural Materials Modeling, Micro-mechanics, Dislocation Density Based Crystal Plasticity, Deformation and Failure Mechanisms of Metallic Materials, Finite Element Method, Dynamic Behavior of Materials, Fracture Mechanics, Aluminum Alloys, Microstructural Characterization
24.	Kulkarni, Vinayak	IISc Bangalore	Associate Professor	High enthalpy flows, scramjet engine, experimental, aerodynamics, measurement science, CFD simulations
25.	Kumar, Bhaskar	IIT Kanpur	Assistant Professor	Hydrodynamic Stability, Bluff Body Flows, Computational Fluid Dynamics
26.	Kumari, Poonam	IIT Delhi	Associate Professor	Theory of plates and shells, Computational mechanics, Smart structures
27.	Madhusudhana, Gavara	IISc Bangalore	Assistant Professor	Computational Fluid Dynamics, Heat Transfer, Cooling of Electronics, Multi-phase flows, Cooling at Micro/Mini scales, Turbulent Fluid Flow and Heat transfer
28.	Mahanta, Pinakeswar	IIT Guwahati	Professor	Thermal Radiation with Participating Media, Fluidization, Energy Conservation and Renewable Energy
29.	Majhi, Butunath	IIT Madras	Assistant Professor	Microfluidics, Interfacial science at cellular level, Ordered water, Superwetting surfaces and On surface disease analysis.

30.	Mandal, Shubhadeep	IIT Kharagpur	Assistant Professor	Microswimmers, Complex Fluids, Droplet Microfluidics, Electrohydrodynamics
31.	Mankodi, Tapan Krishnakumar	IIT Bombay	Assistant Professor	Rarefied Gas Dynamics, Computational Gas Dynamics, Hypersonic Aerothermodynamics, Non-equilibrium Flows, Galerkin Methods
32.	Mittal Rinku Kumar	IIT Bombay	Assistant Professor	Machining Dynamics: Chatter Free Machining
33.	Satish Kumar Panda	National University of Singapore (NUS), Singapore	Assistant Professor	Artificial Intelligence in Healthcare, Medical Image Processing, Diagnosis, Ophthalmology, Biomechanics, and Finite Element Analysis
34.	Mondal, Pranab Kumar	IIT Kharagpur	Assistant Professor	Microfluidics, Electrokinetics, Two Phase Transport, Microscale Transport of Heat, Flow Through Porous Media.
35.	Murthy, K. S. R. Krishna	IIT Kharagpur	Professor	Finite Element Methods, Error Estimation and Fracture Mechanics
36.	Muthu, Nelson	IIT Bombay and Monash University	Assistant Professor	Meshfree Methods, FEM, Fracture Mechanics, Composites, Structural Health Monitoring, Medical Device Innovation
37.	Muthukumar, P.	IIT Madras	Professor	Coupled heat and mass transfer analysis; Metal hydride based thermal machines, Conventional and Non-conventional refrigeration systems
38.	Nandy, Arup	IISc Bangalore	Assistant Professor	Finite Element Development and Analysis in Structure, Acoustics, Electromagnetics, Structural acoustic interaction, Magnetohydrodynamics, MEMS; Optimization
39.	Narayanan, Ganesh R.	IIT Bombay	Associate Professor	Material Forming and Joining
40.	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
41.	Panda, Biranchi	NTU Singapore	Assistant Professor	Advanced manufacturing and design, 3D/4D printing, Modelling and Characterization, Energy and sustainable environmental technologies
42.	Panda, Satyajit	IIT Kharagpur	Associate Professor	Composite materials, Nonlinear vibrations, Smart materials and structures, FEM, Functionally Graded materials and structures, Micromechanics.
43.	Pandey, Manmohan	IIT Kanpur	Professor	Dynamics and Control of Fluid-Thermal Systems, Nuclear Reactor Thermal-Hydraulics
44.	Robi, P. S.	IIT Bombay	Professor	Coating, Fracture Mechanics, Materials Processing, Metal Matrix composite, Metal Casting, P/M Processing
45.	Saha, Ujjwal K.	IIT Bombay	Professor	Propulsion, Turbomachinery, Wind Energy Conversion, Internal Combustion Engines
46.	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
47.	Sahoo, Niranjan	IISc Bangalore	Professor	Fluid and Thermal Engineering, Aerodynamics, Gas Dynamics, Instrumentation, Measurements and Experiments in Fluid
48.	Senthilvelan, S.	IIT Madras	Professor	Composites, Fatigue, Wear and Failure Analysis

49.	Soti, Atul	Monash University and IIT Bombay	Assistant Professor	Computational Fluid Dynamics and Heat Transfer, Fluid-Structure Interaction, Renewable energy, High Performance Computing, Immersed-Boundary Method, Spectral-element Method
50.	Sharma, Deepak	IIT Kanpur	Associate Professor	Optimal Design: Modeling and Computation, Engineering Design and Optimization, Genetic Algorithms, Multi-objective Optimization
51.	Tarkesh Dora Pallicity	IIT Madras	Assistant Professor	Continuum Mechanics of Solids and Fluids, Multiphysics and Multi-Scale Modeling and Simulation
52.	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
53.	Ujendra Kumar Komal	IIT Roorkee	Assistant Professor	Additive Manufacturing of Polymer Composites, Bio-Composites, Natural Fibers

Physics

YEAR OF ESTABLISHMENT OF THE DEPARTMENT: 1995.

ACADEMIC PROGRAMMES OFFERED: B. Tech. (Engineering Physics), M. Sc. (Physics) and Ph. D. (Physics).

LABORATORY FACILITIES

No. of Laboratories with brief introduction: (Total No: 30)

a) Teaching Labs: **(05 teaching laboratories)**
   i. Advanced Physics Lab-01
   ii. B. Tech 1st year Lab-01
   iii. Electronics Lab-01
   iv. General Physics Lab-01
   v. Numerical Lab-01

b) Research labs: **(25 research laboratories)**
   i. Advanced Materials Photonics Lab
   ii. Advanced Nanomaterials Lab (Involved in cutting-edge research on developing advanced nanomaterials and exploring their practical applications in energy conversion and storage)
   iii. Cold and Ultra-Cold Atomic Physics Lab
   iv. Computational Lab
   v. Computer-Generated Holography and Optical Imaging Lab
   vi. Electro-ceramics Lab
   vii. Fiber Optics Lab
   viii. FORG Research lab
   ix. Furnace Lab
   x. High Energy Physics Lab
   xi. Integrated Quantum Photonics Lab
   xii. Laser and Photonics Lab
   xiii. Low-Temperature Physics Lab
   xiv. Magnetism Lab
   xv. Materials Science Lab
   xvi. Nonlinear Optics Lab
   xvii. Physical Property Measurement System Lab
   xviii. Quantum Materials Lab
   xix. Semiconductor Labs
   xx. Semiconductor Nanostructure and vacuum Lab
   xxi. Spectroscopy Lab
   xxii. Spintronics Lab
   xxiii. Terahertz Photonics and Plasmonics Lab
   xxiv. Thin Film Physics Lab
   xxv. XRD Lab

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

- UV ozone Cleaner (US$ 3120); Name of in-charge: Prof. P. Agarwal
- 300 Watt 13.56MHz RF generator, Model: RFG03UIS; Name of in-charge: Prof. P. Agarwal
- X-ray photoelectron spectroscopy; Name of in-charge: Dr. Malleswararao Tangi
- A custom-designed Molecular Beam Epitaxy thin film growth system; Name of in-charge: Dr. Malleswararao Tangi
- Customized Chemical Vapor Deposition system; Name of in-charge: Dr. Malleswararao Tangi

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 (Experiment and Theory)

- Amorphous and nanocrystalline magnetic materials.
- Amorphous and nanocrystalline semiconductors, Thin film and Hetero-junction solar cells, Perovskite solar cells, Graphene, Transition metal dichalcogenides and transition metal oxides, 2D materials.
- Atomistic Modeling of Materials for Energy and Environmental Applications.
- Biophysics and Biomaterials.
- Bioimaging.
- Bosonization.
- Cutting-edge research on the development of advanced nanomaterials and explore their practical application in the area of energy conversion and storage.
- Development of linear giant magnetoresistance devices for magnetic sensors.
- Development of triboelectric and piezoelectric and hybrid nanogenerators for energy harvesting.
- DFT.
- Electronic transport and Fermi surface properties.
- Energy conversion and storage.
- Epitaxial thin films.
- Growth optimization of GeTe, Si_xTe_y, WS_2, MoS_2 ultra-thin layers.
- High Entropy Oxide Systems.
- Hybrid nanomaterials for energy and environmental applications.
- Low-dimensional Van der Waals systems.
- Magnetic alloys and thin films for spintronics.
- Magnetization switching.
- Microwave and piezoelectric bulk and thin films.
- Multilayer structured thin films.
- Nanostructured and Nanogranular magnetic materials.
- Nanowires.
- Non-collinear spin textures.
- Optoelectronics.
- Perovskites.
- Photophysics.
- Photo-emission spectroscopy.
- Polymer nanocomposites.
- Quantum Materials.
- Semiconductors.
- Single crystals.
- Solar Photovoltaics.
- Spintronics devices.
- Spin orbit torque.
- Superconducting spintronics.
- Synthesis of luminescent metal halide perovskite nanomaterials for imaging, sensing and lighting applications.
- Topological materials.
- Transition Metal oxide system.

(ii) Laser and Photonics (Theory and Experiments)

- AI assisted meta-design.
- Color Centers in diamond.
- 2D materials and Heterostructures.

- Fiber & Integrated Optics, Photonic Crystal Fiber and applications, Localized Surface Plasmon Resonance based Sensors, Fiber Bragg Gratings and based Devices, Fiber Optic Sensor, Bio/Nano-Photonics, Graphene immobilized Optical Fiber Sensors.
- Integrated photonics.
- Lab-on-a-chip photonic and microfluidics.
- Laser cooling and trapping of atoms.
- Laser Physics and Spectroscopy, Laser produced plasmas.
- Laser micromachining.
- Nanophotonics.
- Nonlinear optics.
- Optical Switching.
- Optical components in C-band.
- Programmable Diffractive Optics, Confocal Microscopy.
- Quantum emitters in hBN.
- Quantum Optics.
- Quantum optoelectronics.
- Terahertz plasmonics and metamaterails.
- Topological terahertz photonics.
- Ultrafast optics, Terahertz Plasmonics and metamaterials.

(iii) High Energy Physics (Theory and Experiment)

- Collider Phenomenology: Dark matter 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) Gravity, Astrophysics and Cosmology

- 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.

(v) Quantum Optics and Quantum Technology

- The group focuses on a multitude of frontier areas, covering both fundamental and applied aspects of quantum optics.
- The current interests of the research group are coherent control of atom-light interaction, cavity quantum optomechanics, circuit quantum electrodynamics, quantum entanglement, quantum synchronization, quantum metrology, quantum communication, and artificially developing models for quantum many body physics using ultracold atoms.

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT (1 APRIL 2024– 31 MARCH 2025):

- **Prof. A. Perumal** and his group developed a cost-effective method to prepare the High Entropy Oxides at ambient conditions without high temperature environment, which are stable even up to 1200 $^{\circ}$C with tunable novel properties.
- **Successful installation of the following experimental sets by Dr. Malleswararao Tangi at Spintronics Laboratory:**
  - X-ray photoelectron spectroscopy: Efforts are made to acquire scans on Ag and Au samples.
  - A custom-designed Molecular Beam Epitaxy thin film growth system: Designed chamber and heating stage. Achieved UHV conditions. Further working on the sources and other parts.
  - Customized Chemical Vapor Deposition system: upgraded the system with Quartz tube end fittings, carrier Gas cylinders, Mass Flow Controllers, and a rotary pump. Prepared various 2D materials.
- Research work led by **Dr. Saikat Bhaumik** on *"Metal halide perovskite nanomaterial as a cost-effective method for identifying toxic metals like mercury in human cells"* was highlighted in several news channels like DD News, The Statesman, India Today NE, The Economic Times, Times of India, Aaroananda, Zee News, and so on.
- **Achievement of research work led by Dr. Uday Narayan Maiti from Advanced Nanomaterials Laboratory:**
  - Concomitant achievement of all three performance pillars of a supercapacitor energy storage device, namely gravimetric, areal, and volumetric capacitance, is a grand challenge. Nevertheless, its fulfilment is indispensable

for commercial usage. A unique collapsed hydrogel strategy is introduced to develop MXene/cellulose nanofiber (CNF) based densified electrodes that displays remarkably high areal capacitance of 16 F cm−2 while simultaneously exhibiting a high volumetric capacitance of 849.8 F cm^{-3} at an ultrahigh mass loading of up to 73.4 mg cm−2. (published in high-impact Journal Small. (Small 2024, 20, 2400119)

- Developed a unique methodology to grow highly efficient catalysts for hydrogen generation through water splitting. They succeeded in selectively growing amorphous, crystalline ultra-small nanoclusters of noble metals (Ru, Ir, Pd) and single-atom catalysts over graphitization-tunable carbon support. The resulting ultrafine (≈0.7 nm) amorphous ruthenium exhibits state-of-the-art performance in the hydrogen evolution reaction (HER), requiring one of the lowest reported overpotentials of only 23.0 and 285.0 mV to achieve current densities of 10 and 500 mA cm^{-2}, respectively, with exceptional operational stability. This result was published in the highly reputed Journal, Advanced Functional Materials (Adv. Funct. Mater. 2024, 34, 2315460).

- **Discovery work led by Prof. Santabrata Das, his students from IITG and his collaborators from URSC/ISRO**
  - **Prof. Santabrata Das** along with his students and collaborators discovered evolving low-frequency quasi-periodic oscillations (LFQPOs) up to ~100 keV in the black hole Swift J1727.8–1613 using AstroSat. This marks the first such detection at these high energies. The QPO frequency increased from ~1.1 to ~2.6 Hz over a week, providing insights into inner accretion flow dynamics. The findings reveal a strong link between hard X-ray emission and black hole accretion processes, showcasing AstroSat's exceptional timing capabilities and advancing high-energy astrophysics. These findings are published in the highly reputed journal *Monthly Notices of the Royal Astronomical Society* (MNRAS, 2024, 531, 1149) that advanced the present understanding of high energy black hole physics.
  - **Prof. Santabrata Das** along with his students and collaborators reported the first detection of X-ray polarization in the Galactic ULX pulsar Swift J0243.6+6124 using data from NASA's IXPE mission. This groundbreaking observation reveals the geometry and magnetic field structure of the accretion column in a super-Eddington regime. The study marks a major milestone in pulsar astrophysics and magnetized accretion theory. The work was published in the prestigious *Astrophysical Journal Letters* (ApJL, 2024, 971, L21).

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL

Sl. No.	Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
1.	Prof. Subhradip Ghosh	ICONN2025	SRM institute of Science & technology, Chennai	24-26/03/2025	International
2.	Dr. Uday Narayan Maiti	8th International Conference on Nanoscience and Nanotechnology (ICONN 25)	SRM University, Chennai	24/03/2025	International
3.	Prof. Santabrata Das	6th National conference on Recent Trends in the study of Compact Objects: Theory and Observation (RETCO-VI)	IIT Indore	10-12/03/2025	National
4.	Prof. Santabrata Das	43rd meeting of the Astronomical Society of India	NIT Rourkela	15-19/02/2025	National
5.	Dr. Malleswararao Tangi	Frontiers in Meta surfaces and Terahertz Photonics, FiMTP 2025	IIT Guwahati	14-15/02/2025	National
6.	Dr. Rishi Maiti	SPARC, 2025	IIT Guwahati	14-15/02/2025	National
7.	Dr. Binoy Krishna Hazra	ICMAGMA-2025	IISc Bangalore, India	12-14/02/2025	International
8.	Prof. Arunansu Sil	Current Trends in Particle and Astro-particle Physics (CTPAP)	Indian Association for the Cultivation of Science, Kolkata	30-31/01/2025	National
9.	Prof. Subhaditya Bhattacharya	Current Trends in Particle and Astro-particle Physics (CTPAP)	IACS, Kolkata	30-31/01/2025	National
10.	Prof. Perumal Alagarsamy	International Conference on Role of Physics in Modern Technologies - ICRPMT'25	American College, Madurai	08-09/01/2025	International

11.	Dr. Pankaj Kumar Mishra	7th Annual Conference on Quantum Condensed Matter (QMAT 24)	IIT Guwahati	20-23/12/2024	National
12.	Dr. Uday Narayan Maiti	7th Annual Conference on Quantum Condensed Matter (QMAT 24)	IIT Guwahati	20-23/12/2024	National
13.	Dr. Saikat Bhaumik	7th Annual Conference on Quantum Condensed Matter (QMAT 24)	IIT Guwahati	20-23/12/2024	National
14.	Dr. Vibhav Bharadwaj Shivakumar	7th Annual Conference on Quantum Condensed Matter (QMAT 24)	IIT Guwahati	20-23/12/2024	National
15.	Dr. Malleswararao Tangi	7th Annual Conference on Quantum Condensed Matter (QMAT 24)	IIT Guwahati	20-23/12/2024	National
16.	Dr. Binoy Krishna Hazra	7th Annual Conference on Quantum Condensed Matter (QMAT 24)	IIT Guwahati	20-23/12/2024	National
17.	Dr. Ratnadwip Singha	7th Annual Conference on Quantum Condensed Matter (QMAT 24)	IIT Guwahati	20-23/12/2024	National
18.	Dr. Rishi Maiti	PHOTONICS- 2024	IIT Kharagpur	12-15/12/2024	International
19.	Dr. Saikat Bhaumik	IUMRS-ICA 2024	UGC-DAE-CSR, Indore	04/12/2024	International
20.	Dr. Binoy Krishna Hazra	Mag-Spin-2024	IIT Kanpur	02-04/12/2024	National
21.	Prof. Perumal Alagarsamy	Sakura Science Exchange Program	University of Tsukuba, Tsukuba, Japan	29/11/2024-19/12/2024	International
22.	Prof. Perumal Alagarsamy	Sakura Science Exchange Program	National Institute for Materials Science, Tsukuba, Japan	29/11/2024-19/12/2024	International
23.	Prof. Subhradip Ghosh	Electronic Structure Theory of Emergent Spin-orbit Driven Phenomena	IIT Bombay	13-15/11/2024	National
24.	Dr. Ratnadwip Singha	Advances in Functional Solids	IIT Kharagpur	09-12/11/2024	International
25.	Dr. Binoy Krishna Hazra	Indo-German Kick-Off Workshop 2024	NISER Bhubaneswar	05-08/11/2024	International
26.	Prof. Pravat Kumar Giri	International Conference on Emerging Advanced Nanomaterials 2024 (ICEAN-2024)	New Castle, Australia	04-08/11/2024	International
27.	Dr. Uday Narayan Maiti	International Conference on Smart Materials for Sustainable Technology (SMST 2024)	INST Mohali, Panjab	24/10/2024	International
28.	Prof. Santabrata Das	10th North-East Meet of Astronomers	Tezpur University	23-25/10/2024	National
29.	Dr. Debasish Borah	10th North East Meet of Astronomers	Tezpur University	23-25/10/2024	National
30.	Dr. Binoy Krishna Hazra	IEEE Around-the-Clock Around-the-Globe Magnetics	Online	02/10/2024	International
31.	Dr. Meduri Chakravartula Kumar	Advancements in Method for Precision Studies (AMPS) 2024	IISER Mohali	28-30/09/2024	National
32.	Prof. Pratima Agarwal	International Conference on Semiconductor Technologies-Materials to Chips (ICST-2024)	Amity University, Noida, UP (Online)	18-20/09/2024	International
33.	Prof. Subhradip Ghosh	European Materials Society Meeting Fall 2024	Warsaw Polytechnic, Poland	16-19/09/2024	International
34.	Prof. Santabrata Das	Galactic and Extragalactic X-ray Transients Theory and observational perspectives	Warsaw, Poland	09-11/09/2024	International

35.	Prof. Pravat Kumar Giri	SPARC Workshop on 2D Materials	IIT Kharagpur	24-25/08/2024	International
36.	Dr. Vibhav Bharadwaj Shivakumar	Research and Industrial Conclave	IIT Guwahati	11/08/2024	National
37.	Dr. Malleswararao Tangi	Research & Industrial Conclave (RIC)-INTEGRATION 2024	IIT Guwahati	09-11/08/2024	National
38.	Dr. Rishi Maiti	Research & Industrial Conclave (RIC)-INTEGRATION 2024	IIT Guwahati	09-11/08/2024	National
39.	Prof. Subhradip Ghosh	International Conference on 60 years of DFT: Advancements in Theory and Computation	IIT Mandi	21-27/07/2024	National
40.	Prof. Arunansu Sil	Workshop on Dark Matter and Astroparticle Physics (WDMAP)	IOP Bhubaneswar	07-09/08/2024	National
41.	Dr. Debasish Borah	Workshop on Dark Matter and Astroparticle Physics (WDMAP)	IOP Bhubaneswar	07-09/08/2024	National
42.	Prof. Soumitra Nandi	Workshop on Dark Matter and Astroparticle Physics (WDMAP)	IOP Bhubaneswar	07/08/2024	National
43.	Prof. Subhaditya Bhattacharya	Workshop on Dark Matter and Astroparticle Physics (WDMAP)	IOP Bhubaneswar	07/08/2024	National
44.	Prof. Pratima Agarwal	International Conference on Energy and Environmental Materials (E2M-2024)	IIT Indore	11-13/07/2024	International
45.	Prof. Santabrata Das	17th Marcel Grossmann Meeting: On Recent Developments in Theoretical and Experimental General Relativity, Gravitation, and Relativistic Field Theories (MG17)	Pescara, Italy	07-12/07/2024	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Sl. No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
1.	Prof. Subhaditya Bhattacharya	Dark Matter and detection possibilities	Ramakrishna Mission Vivekananda Educational and Research Institute	West Bengal	29/03/2025
2.	Dr. Debasish Borah	**Why do We Live in a Universe Filled with Matter and no Antimatter?** (Physics colloquium)	University of Mississippi	Oxford, Mississippi, USA	25/03/2025
3.	Prof. Amarendra Kumar Sarma	Superconducting Qubits: The Rosiest Qubits for Quantum Computer	Indian Institute of Information Technology Guwahati (IIITG)	Guwahati	23/03/2025
4.	Prof. Amarendra Kumar Sarma	Examples of Physical implementations of Qubits	National Communications Academy, Ghaziabad	Ghaziabad	18/03/2025
5.	Prof. Amarendra Kumar Sarma	Qubits and Quantum Operations on Qubits	National Communications Academy, Ghaziabad	Ghaziabad	18/03/2025
6.	Prof. Amarendra Kumar Sarma	Hybrid Superconducting Qubit Systems as a Platform for Quantum Technology	Tezpur University	Tezpur	03/03/2025
7.	Dr. Rishi Maiti	I) Engineering Light-Matter Interaction of 2D Atomic Layers Using Nanophotonic Cavity. II) Integrated Nanophotonics with Van der Materials	IIT ISM Dhanbad	Dhanbad	27/02/2025-05/03/2025

8.	Dr. Rishi Maiti	Integrated Nano-photonics with Van der Walls Materials	DIAT Pune	Pune	19/02/2025
9.	Prof. Santabrata Das	Relativistic hot accretion flows around black holes	NIT Rourkela	Rourkela	18/02/2025
10.	Dr. Debasish Borah	Production of dark matter and baryon asymmetry from primordial black holes (Theory seminar)	University of Alabama	Tuscaloosa, Alabama, USA	13/02/2025
11.	Dr. Debasish Borah	Unified origin of visible and dark matter in the Universe (Physics colloquium)	University of Alabama	Tuscaloosa, Alabama, USA	12/02/2025
12.	Prof. Arunansu Sil	Spontaneous leptogenesis with sub-GeV axionlike particles	Indian Association for the Cultivation of Science (IACS)	West Bengal	31/01/2025
13.	Prof. Subhaditya Bhattacharya	New Physics determination via Optimal Observable Technique	Indian Association for the Cultivation of Science (IACS)	West Bengal	31/01/2025
14.	Prof. Perumal Alagarsamy	Energy Harvesting: Advanced Technologies, Novel Functional Materials and Striking Challenges	American College, Madurai	Madurai, India	08/01/2025
15.	Dr. Pankaj Kumar Mishra	Structure dynamics and stability of ultradilute quantum droplet	IIT Guwahati	Guwahati	23/12/2024
16.	Dr. Malleswararao Tangi	Chiral spin textures in Epitaxial Acentric Quantum materials	QMAT 2024, IIT Guwahati	Guwahati	23/12/2024
17.	Prof. Bosanta R Boruah	Free space propagation of light beam carrying Zernike modes	International Topical meeting on Classical and Quantum Optics (INTOCQ-24) Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram	India	16-18/12/2024
18.	Prof. Perumal Alagarsamy	High Entropy Oxides vs Tunable Entropy Oxides: Choice of Materials for investigation	National Institute for Materials Science (Sengen Site)	Tsukuba, Japan	16/12/2024
19.	Dr. Rishi Maiti	Engineering Light-Matter Interaction of 2D Atomic Layers Using Nanophotonic Cavity	IIT Kharagpur	Kharagpur	13/12/2024
20.	Prof. Perumal Alagarsamy	Tunable Entropy Systems: Materials' Choice, Synthesis, Phase Stability, Emergent Functionality for Applications in Energy Harvesting and Future Magnetoelectronics	Research Center for Materials Nanoarchitectonics (MANA), National Institute for Materials Science (Namiki Site)	Tsukuba, Japan	11/12/2024
21.	Prof. Perumal Alagarsamy	Disorder vs Order ➔ Design Engineering; Harnessing disorder for emergent functionalities	University of Tsukuba	Tsukuba, Japan	03/12/2024
22.	Dr. Rishi Maiti	Shedding light on 2D Materials: A Path towards Next-Generation Photonics	Université Paris-Saclay	France	03/12/2024
23.	Dr. Pankaj Kumar Mishra	Department Seminar on "Structure and dynamics of the spin-orbit coupled quantum dorplet"	IISc Bangalore	Bangalore	02/12/2024
24.	Prof. Pratima Agarwal	Solar PV technology and Latest developments	National Power Training Institute, Guwahati	Guwahati	19/11/2024
25.	Prof. Subhradip Ghosh	Non-volatile electrically switchable half-metallicity in multiferroic TMDC-Mxene heterostructures	IIT Bombay	Bombay	13/11/2024

26.	Dr. Ratnadwip Singha	Using crystallographic motifs to search for new quantum materials	IIT Kharagpur	Kharagpur	12/11/2024
27.	Prof. Bosanta R Boruah	Understanding Fourier Transformation using optics	SPIE Outreach program, Handique Girls College, Guwahati	Guwahati	02/11/2024
28.	Prof. Ashwini Kumar Sharma	Introduction to Laser	SPIE Outreach program, Handique Girls College, Guwahati	Guwahati	02/11/2024
29.	Prof. Santabrata Das	Relativistic accretion flows around black holes	Tezpur University, Assam	Tezpur	24/10/2024
30.	Dr. Debasish Borah	Baryon asymmetry and dark matter from PBH	Tezpur University, Assam	Tezpur	23-25/10/2024
31.	Dr. Pankaj Kumar Mishra	Department Seminar on "Structure and dynamics of the spin-orbit coupled quantum dorplet"	IIT Kanpur	Kanpur	15/10/2024
32.	Prof. Bosanta R Boruah	Free space optical communication using structured light	SCOP 2024 by Optica student chapter, Physical Research Laboratory, Ahmedabad,	Ahmedabad	25-27/09/2024
33.	Prof. Pratima Agarwal	Solar PV technology and current trends in Research & Development	National Power Training Institute, Guwahati	Guwahati	24/09/2024
34.	Prof. Pratima Agarwal	Dopant free Carrier Selective Layers in c-Si Based Heterojunction Solar Cells	Amity University (Online)	Noida, UP	18/09/2024
35.	Prof. Santabrata Das	Relativistic dissipative accretion flow around black hole sources	03 Hotel	Warsaw, Poland	11/09/2024
36.	Prof. Subhaditya Bhattacharya	Dark Matter in single and multipartite frameworks	Indian Institute of Science Education and Research (IISER)	Kolkata	28/08/2024
37.	Dr. Rishi Maiti	Engineering light-matter interaction of 2D atomic layers using nanophotonic cavity	IIT Guwahati	Guwahati	10/08/2024
38.	Prof. Arunansu Sil	Some Recent Developments in Leptogenesis	IOP Bhubaneswar	Bhubaneswar	09/08/2024
39.	Dr. Debasish Borah	Landscape of particle dark matter model	IOP Bhubaneswar	Bhubaneswar	07-09/08/2024
40.	Prof. Subhaditya Bhattacharya	Dark Matter: A particle perspective	IOP Bhubaneswar	Bhubaneswar	07/08/2024
41.	Dr. Malleswararao Tangi	Quantum materials for optoelectronics and spintronics	Department of Physics, IIT Guwahati	Guwahati	27/07/2024
42.	Prof. Subhradip Ghosh	Janus MXenes: superior photocatalysts for water splitting	SRM institute of Science & Technology	Chennai	24/07/2024
43.	Prof. Subhradip Ghosh	Interpretation of DFT Results	IIT Mandi	Himachal Pradesh	23/07/2024
44.	Prof. Arunansu Sil	Spontaneous Leptogenesis with sub-GeV axion like particles	Ramakrishna Mission Vivekananda Educational and Research Institute	West Bengal	18/07/2024
45.	Prof. Bosanta R Boruah	Accessible superresolved microscopy: implementation of easySTORM on openFrame at IIT Guwahati	OpenScopes Africa	Online talk	15/07/2024
46.	Prof. Pratima Agarwal	Challenges in Dopant free c-Si heterojunction solar cells. (Key note lecture)	IIT Indore	Indore	12/07/2024
47.	Prof. Soumitra Nandi	Interpretations of the data on $b \to c(u)\ell\nu$ decays: SM and beyond	High Energy Accelerator Research Organization, KEK	Tsukuba, Japan	12/07/2024

48.	Prof. Soumitra Nandi	Interpretations of the data on b → c(u)ℓν decays: SM and beyond	University of Osaka	Osaka, Japan	09/07/2024
49.	Prof. Soumitra Nandi	Interpretations of the data on b → c(u)ℓν decays: SM and beyond	University of Nagoya	Nagoya, Japan	08/07/2024
50.	Dr. Meduri Chakravartula Kumar	Partonic Model and Structure of Hadrons	CMS Group, TIFR	Online	01/07/2024
51.	Prof. Santabrata Das	Relativistic viscous accretion flow model for black hole sources with XMM–Newton observations	The Gabriele d'Annunzio University and ICRANet	Pescara, Italy	11/06/2024
52.	Prof. Arunansu Sil	Spontaneous Leptogenesis with sub-GeV axion like particles	University College London	London, United Kingdom	07/06/2024
53.	Dr. Binoy Krishna Hazra	Five-day online faculty development program on sustainable nanomaterials engineering for environmental applications	Centre for Nanotechnology, IIT Guwahati	Guwahati	June 2024
54.	Prof. Arunansu Sil	Spontaneous Leptogenesis with sub-GeV axion like particles	University of Southampton	Southampton, United Kingdom	31/05/2024
55.	Dr. Malleswararao Tangi	Summer course on Nanoelectronics and nanophotonics	Department of Physics, IIT Guwahati	Guwahati	May-June 2024
56.	Prof. Ashwini Kumar Sharma	Introduction to Laser	International Day of Light (IDL), Department of Physics, Abhayapuri College, Bongaigaon	Bongaigaon	16/05/2024
57.	Dr. Debasish Borah	Mini course on Dark Matter, Neutrinos and Baryon asymmetry	International Institute of Physics (IIP), Natal	Natal, Brazil	13-16/05/2024
58.	Dr. Vibhav Bharadwaj Shivakumar	International world quantum day	Sri Sathya Sai Institute of Higher Learning	Puttaparthi, AP	14/04/2024
59.	Dr. Binoy Krishna Hazra	Familiarization Workshop on Quantum Materials and Nano Devices	Centre for Nanotechnology, IIT Guwahati	Guwahati	April 2024
60.	Prof. Subhradip Ghosh	Excellent Performance Parameters of Janus MXenes, New Infra-red and Visible Active Photocatalysts for Water Splitting	Warsaw Polytechnic	Warsaw, Poland	-

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks
1.	Mr. Akhil Uniyal	T. D. Lee institute at Shanghai, China	Testing the theory of gravity with the GRMHD simulation and black hole Imaging	21/03/2025	Department seminar
2.	Dr. Surajit Kalita	Astronomical Observatory University of Warsaw, Poland	Bridging the Cosmic Gap: Insights into Modern Cosmology through Fast Radio Bursts	19/03/2025	Department seminar
3.	Prof. David Lange and Prof. Peter Elmer	Princeton University	Building International Research Software Collaborations for Next-Generation High Energy Physics Experiments	12/03/2025	Department seminar
4.	Prof. Arnab Rai Choudhuri	Indian Institute of Science, Bangalore	The Mysterious Magnetic Personality of Our Sun	10/03/2025	Department seminar

5.	Mr. Shauvik Biswas	Indian Association for the Cultivation of Science, Kolkata	Stability of Exotic Compact Objects and Environmental Effects	26/02/2025	Department seminar
6.	Dr. Johannes Kirscher	SRM University, Andhra Pradesh	4-body reaction features universally correlated with dimer & trimer	25/02/2025	Department seminar
7.	Dr. Martin Schafer	Nuclear Physics Institute (NPI) of the Czech Academy of Sciences	Nuclear processes during the Big Bang Nucleosynthesis	20/02/2025	Department seminar
8.	Dr. Indu Kalpa Dihingia	Tsung-Dao Lee Institute, Jiao-Tong University, Shanghai	Understanding falling of matter onto Our Galaxy's Supermassive Black Hole	07/02/2025	Department seminar
9.	Dr. Arnab Pal	The Institute of Mathematical Sciences	Target search with intermittency renders universal efficiency	27/01/2025	Department seminar
10.	Dr. Debika Debnath	PRL, Ahmedabad	Gate tunable Josephson diode effect in quantum dot-based heterojunction	02/01/2025	Department seminar
11.	Dr. Himangsu Bhaumik	University of Cambridge Cambridge, UK	Yielding of colloidal gel at different length scales	12/12/2024	Department seminar
12.	Dr. Arpan Kundu	Institute of Mathematical Sciences	New Lessons from (Generalized) BMS Symmetries & Soft Graviton	27/11/2024	Department seminar
13.	Prof. B. Ananthanarayan	Indian Institute of Science, Bengaluru	Feynman Integrals and Hypergeometric Functions: Recent Results and Mathematica Implementations	25/10/2024	Department seminar
14.	Dr. Pallabi Das	Princeton University	Hunting for Beyond the Standard Model Higgs at the CMS experiment	24/10/2024	Department seminar
15.	Prof. B. Ananthanarayan	Indian Institute of Science, Bengaluru	Joy of Discovery in the Modern Era: Some Reflections and Directions	22/10/2024	Institute Colloquium
16.	Prof. P. S. Bhupal Dev	Washington University in St. Louis, USA	Seminar: Pseudo-Dirac Neutrinos	19-26/10/2024	Department seminar
17.	Dr. Buddha Deka Boruah	University College London (UCL), UK	Aqueous Zn-ion Batteries: Dendrite Suppression, Enhanced Cathode Capacities, and Planar Electrode Design	10/04/2024	xxx

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. Santabrata Das Chair, **Local Organizing Committee**	9th Aditya-L1 Support Cell Workshop	IIT Guwahati	24-26/03/2025	National	50
2.	Prof. Santabrata Das **(Scientific Organizing Committee member)**	6th National conference on Recent Trends in the study of Compact Objects: Theory and Observation (RETCO-VI)	IIT Indore	10-12/03/2025	National	114
3.	Dr. Ratnadwip Singha (Chairman), Dr. Rishi Maiti and Dr. Kanhaiya Pandey	Celebration of National Science Day, 2025	IIT Guwahati	28/02/2025	National	~200
4.	Prof. Saurabh Basu, Prof. Subhradip Ghosh, Dr. Pankaj Kumar	7th Annual Conference on Quantum Condensed Matter, QMAT 2024	IITG, TIFR, Industries, SN Bose, TIH,	20-23/12/2024	National	~350

	Mishra, Dr. Uday Narayan Maiti, Dr. Perumal Alagarsamy, Dr. Saikat Bhaumik, Dr. Binoy Krishna Hazra, Dr. Gagan Kumar, Dr. Rishi maiti, Dr. Dilip Pal, Dr. D. Pamu, Dr. Kanhaiya Pandey, Dr. G.S. Setlur, Dr. Vibhav Bharadwaj Shivakumar, Dr. Ratnadwip Singha, Dr. Malleswararao Tangi, and Dr. S. Thota **(Local Organizing Committee)**		IITG, Advanced Photonics, Biologic			
5.	Prof. Subhaditya Bhattacharya and Prof. Jose Wudka from Univ. of California, Riverside	GIAN course on Standard Model Effective Field Theories and Applications to Higgs, Neutrinos, and Dark Matter	GIAN, Govt. of India	09-11/12/2024	National	100
6.	Dr. Pankaj Kumar Mishra **(Organizing Committee member)**	Physics of complex system 2024	TIFR, Hyderabad	18-20/11/2024	International	120

AWARDS AND HONOURS

- Prof. Pravat Kumar Giri: Fellow, Physics Academy of North East (PANE)
- Prof. Pravat Kumar Giri: Fellow, Royal Society of Chemistry, UK
- Dr. Debasish Borah: Fulbright-Nehru Academic and Professional Excellence Award (Research) 2024-25, USIEF
- Dr. Binoy Krishna Hazra: Max-Planck partner group leader, Max-Planck Society, Germany
- Dr. Rishi Maiti: Scientific High-Level Visiting Fellowships (SSHN) 2024, IFI, French Embassy
- Dr. Rishi Maiti: Shastri Scholar Travel Subsidy Grant (SSTSG), SICI, Canada

STUDENTS' ACHIEVEMENTS

- Mr. Sourav Mandal: Best Oral Presentation Award, iReAd MAGMA24
- Mr. Sujit Kumar Deb: Best poster presentation, Ministry of Science and Technology, Government of India
- Mr. Sujit Kumar Deb: Scientifique: Poster Presentation, Research and Industrial Conclave Integration,2024, IIT Guwahati
- Mr. Golam Masud Karim: Best poster presentation, Ministry of Science and Technology, Government of India
- Mr. Sirsendu Ghosal: Best poster award, FINS Conference
- Ms. Pujarini Mahapatra: Poster Prize Award, Physical Chemistry Chemical Physics at SoPhyC
- Mr. Sunil Kumar Moharana: Poster Prize Award, Physical Chemistry Symposium 2024
- Ms. Swati Shaw: Best Poster Award, International Conference on 60 years of DFT: Advancements in Theory and Computation
- Mr. Rethyam Gupta, B.Tech (Engineering Physics): Dr. Shankar Dayal Sharma Gold medal, IIT Guwahati
- Dr. Angana Bhattacharya: Best Thesis Award, IIT Guwahati
- Mr. Srinjoy Ghosh, MSc (Physics): Institute Silver medal, IIT Guwahati
- Mr. Gilkara Arnav Naidu, B. Tech. (Engineering Physics): Institute Silver medal, IIT Guwahati

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
1.	Pratima Agarwal	IIT Kanpur	Professor	Amorphous and Nanocrystalline materials, Transition metal oxides and Transition metal chalcogenides, Graphene and carbon allotropes, thin film and Heterojunction solar cells, perovskite solar cells.
2.	Saurabh Basu	IIT Kanpur	Professor	Condensed Matter Physics (Theory); High TC superconductors, Optical lattices, Transport in Magnetic semiconductors.
3.	Saikat Bhaumik	IACS, Kolkata	Assistant Professor	Nanomaterials, Single Crystals, Perovskites, Photophysics, DFT, Opto-electronic Devices, Bioimaging.
4.	Bipul Bhuyan	Delhi University	Professor	High Energy Physics (Experiment); CP violation, Rare K and B meson decays, ILC R & D.
5.	Subhaditya Bhattacharya	HRI, Allahabad	Professor	High Energy Physics (Theory), Phenomenology of Standard Model and Beyond, Supersymmetry, Dark Matter, LHC.
6.	Bosanta Ranjan Boruah **(Head of the Department)**	Imperial College London	Professor	**Lasers and Optics (Experiment & Theory);** Programmable Diffractive Optics, Confocal Microscopy, Phase Stepping Interferometry, Vectorial Diffraction Theory.
7.	Debasish Borah	IIT Bombay	Associate Professor	Particle Physics Model Building, Astroparticle Physics and Cosmology.
8.	Sayan Kumar Chakrabarti	SINP, Kolkata	Associate Professor	High Energy Physics (Theory), General relativity, Black hole perturbations, GPtational waves, Cosmology.
9.	Sovan Chakraborty	SINP, Kolkata	Associate Professor	Astroparticle Physics, High Energy Astrophysics, Neutrino Oscillations, Supernovae Neutrinos, Ultra High Energy Neutrinos & Dark Matter.
10.	Santabrata Das	SNBNCBS, Kolkata	Professor	Astrophysics (Theory); Astrophysical flows around compact objects, Ultra high energy cosmic rays.
11.	Tarak Nath Dey	PRL, Ahmedabad	Professor	Quantum Optics (Theory); Coherent control of pulse propagation, Nonlinear optics, Optical solitons, Negative index media, Bose-Einstein condensates.
12.	Subhradip Ghosh	SNBNCBS, Kolkata	Professor	Condensed Matter Physics (Theory); Electronic Structure theory, Ordering and Phase stability of disordered alloys, Vibrational properties of metallic alloys.

13.	Pravat Kumar Giri	IIT Kanpur	Professor	Condensed Matter Physics (Experimental); Semiconductor nanostructures, Ion-solid interactions, Optoelectronic materials & devices, Nanotechnology.
14.	Binoy Krishna Hazra	Univ. of Hyderabad	Assistant Professor	Spintronics devices, Superconducting spintronics, Magnetization switching, Spin orbit torque, Non-collinear spin textures
15.	Charudatt Y. Kadolkar	IIT Bombay	Associate Professor	Condensed Matter Physics (Theory); Magnetism, Defects in Ionic Materials, Group Theoretical approaches to Molecular Problems.
16.	Alika Khare	IIT Kanpur	Professor	Laser and Photonics.
17.	Sunil K. Khijwania (On lien)	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.	Gagan Kumar	IIT, Delhi	Professor	Terahertz Plasmonics and metamaterials, Guided Wave Devices, Ultrafast Spectroscopy.
19.	Meduri Chakravartula Kumar	Univ. of Hyderabad	Associate Professor	High Energy Physics.
20.	Arif Warsi Laskar (Date of joining: 19.02.2025)	IIT Kanpur	Assistant Professor	Experimental Quantum Optics, Synchronous Quantum Networks, Quantum Sensing and Metrology, Atomic and Molecular Physics, Laser Cooling and Trapping, Bose-Einstein Condensate (BEC) of Dipolar Atoms, Artificial Magnetic Fields and Quantum Hall Physics in Ultracold Atoms
21.	Debaprasad Maity	IACS, Kolkata	Professor	High Energy (Theory), Cosmology, Ads/CMT, Cosmological Magneto-hydrodynamics.
22.	Rishi Maiti	IIT Kharagpur	Assistant Professor	Nanophotonics, Quantum optoelectronics, Thermal photonics, 2D Materials.
23.	Uday Narayan Maiti	Jadavpur University, Kolkata	Associate Professor	Energy storage, green hydrogen generation, EMI shielding.
24.	Bibhas Ranjan Majhi	SNBNCBS, Kolkata	Associate Professor	High Energy Physics (Theory); General theory of relativity, Field theory on curved spacetimes, Black holes, Cosmology, Thermodynamical aspects of gravity, Fluidgravity correspondence.
25.	Pankaj Kumar Mishra	IIT Kanpur	Associate Professor	Theoretical Condensed Matter Physics.
26.	Malay Kumar Nandy	IIT Kanpur	Associate Professor	Classical and Quantum Gravity, Astrophysical compact objects: white dwarfs and neutron stars, Gravitational waves, Cosmology, Inflation and Reheating. Magnetohydrodynamics, Quantum Field

				theory in the early universe, Quantum Computation.
27.	Soumitra Nandi	Univ. of Calcutta	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.
28.	Padma Kumar Padmanabhan	IISc, Bangalore	Professor	Condensed matter (Theory); Atomistic Modeling and Simulation of Condensed States of Matter.
29.	Dilip Pal	TIFR, Mumbai	Professor	Low Temperature Physics and Material Science (Experimental); Strongly Correlated Electron Systems, Vortex states in superconductors, Superconductivity and Magnetism.
30.	Dobbidi Pamu	Univ. of Hyderabad	Professor	Condensed Matter Physics; High-k and low loss materials, Ferroelectrics Ceramics, Oxide thin films Nanomaterials.
31.	Kanhaiya Pandey	IISc, Bangalore	Associate 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.
32.	Perumal Alagarsamy	IIT Kharagpur	Professor	Novel materials for energy harvesting; Linear CIP-GMR for magnetic sensor; Transition Metal oxide based films for spintronics; Nanogranular magnetic materials for ultrahigh-density magnetic recording; Multilayer thin films for soft magnetic films; Nanostructural formation mechanism; Magnetic nanoparticles and nanocomposites.
33.	Udit Raha	University of Bonn, Germany	Associate Professor	Quantum Chromodynamics and Nuclear Effective Field Theories.
34.	Seenipandian Ravi	Univ. of Hyderabad	Professor	Condensed Matter Physics (Experimental); Magnetism, Superconductivity, Low temperature Physics.
35.	Sitangshu Bikas Santra	Bose Institute, Kolkata	Professor	Condensed Matter Physics (Theory); Condensed Matter Physics, Statistical Physics.
36.	Amarendra Kumar Sarma	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 TransformationOptics, Parity-time Symmetric Optics.
37.	Ashwini Kumar Sharma	IIT Kanpur	Professor	Pulsed laser ablation and plasma spectroscopy, Deposition and characterization of nanostructures, Plasmonics.

38.	Girish Sampath Setlur	Univ. of Illinois	Professor	Theoretical Physics; Optoelectronic properties of graphene, Nonchiral bosonization of fermions in one and higher dimensions.
39.	Vibhav Bharadwaj Shivakumar	Politecnico di Milano, Italy	Assistant Professor	Ultrafast lasers, Laser Micromachining, Lab-on-a-chip Photonic and Microfluidics, Integrated Quantum Photonics, Color Centers in Diamond, Quantum Emitters in hBN.
40.	Arunansu Sil	Univ. of Calcutta	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.
41.	Ratnadwip Singha	SINP, Kolkata	Assistant Professor	Topological materials, Low-dimensional Van der Waals systems, Single crystal growth, Electronic transport and Fermi surface properties, Photo-emission spectroscopy.
42.	Ananthakrishnan Srinivasan	IISc, Bangalore	Professor	Condensed Matter Physics (Experimental); Glasses and Disordered Materials, Thin Films, Metallic Alloys, Nanophase materials, Shape Memory Alloys.
43.	Malleswararao Tangi	JNCASR Bangalore	Assistant Professor	Ultra-High Vacuum Thin Film preparation, Optoelectronics and Spintronics.
44.	Samudrajit Thapa (Date of joining: 03.03.2025)	Univ. of Potsdam, Germany	Assistant Professor	Statistical physics, soft matter, biophysics, stochastic processes, anomalous diffusion.
45.	Subhash Thota	IIT Kanpur	Professor	Material Science and Engineering; Magnetic Nanostructures, Oxide Heterostructures, Superlattices, Magnetocaloric effects, Semi-magnetic semiconductors, Bandgap Engineering.
46.	Thomas Busch	Okinawa Institute of Science and Technology Graduate University, Japan	Honorary Faculty	Quantum Systems Unit.
47.	Gautam Vemuri	Indiana University-Purdue University, USA	Honorary Faculty	Atomic, Molecular and Optical Physics.
48.	Benjamin Fuks	LPTHE-CNRS-Sorbonne Université, France	Honorary Faculty	Perturbative QCD, beyond the Standard Model phenomenology, LHC physics, dark matter and the development of computing tools for high-energy physics.
49.	Alex Hansen	Cornell University, USA	Honorary Faculty	Complex matter Physics, computational Physics, Transport and breakdown phenomena in disordered systems, Physics of porous media, Physics of granular media, non-equilibrium statistical Physics.
50.	Yuya Sakuraba	Tohoku University, Japan	Honorary Faculty	Spintronics, Half-metallic Heusler compounds, Anomalous Nernst effect.

51.	V.S. Vallabhapurapu	University of South Africa, South Africa	Honorary faculty	Experimental Condensed Matter Physics, Electron Spin Resonance (ESR), Nano Magnetics, Thermal Properties of Nano and Micro Composites, Spintronics.

Centre for the Environment

YEAR OF ESTABLISHMENT OF THE CENTRE: 2004

ACADEMIC PROGRAMMES OFFERED: PhD

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.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

- Gas Chromatograph Model: 8860, Make: Agilent
- Hydrothermal reactor, Ant ceramics
- Pyrolysis system, make: DASS; Model: DC-PS-3
- Desktop PC, Model: Think Centre Neo 5ot; Make: Lenovo

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

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL

Sl. No.	Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
01	Prof. Animes Kumar Golder	Short-term course (e-STC) "Sustainable Developments in Chemical and Biochemical Processes" (SDCBP-2024)	National Institute of Technology Hamirpur, Himachal Pradesh, India	11.04.2025 to 15.04.2025	National
02	Prof. Chandan Mukherjee	Modern Trends in Inorganic Chemistry (MTIC-XXI)	Department of Chemistry, IIT Kharagpur, West Bengal, India	14.12.2024 to 17.01.2024	National
03	Prof. Chandan Mukherjee	National Conference of Society for Nitric Oxide and Allied Radicals	Department of Chemistry, IIT Roorkee, Uttarakhand, India	21.02.2025 to 22.02.2025	National
04	Prof. Chandan Mukherjee	Environment 2024	Centre for the Environment, Indian Institute of Technology Guwahati, Assam, India	09.12.2024 to 11.12.2024	National

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Sl. No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
01	Prof. Animes Kumar Golder	Nanostructure Materials: Pollutants Detoxification and its Recovery	Advancing Sustainability through Chemical Engineering and Nanotechnologies (ASCENT 2025)	Deptt. of Chemical Engineering, NIT Warangal, Telangana, India	20.03.2025-22.03.2025
02	Prof. Animes Kumar Golder	Nature-inspired Nanomaterials for Environmental Applications	Sustainable Developments in Chemical and Biochemical Processes" (SDCBP-2024)	NIT Hamirpur, Himachal Pradesh, India	11.04.2025-15.04.2025
03	Prof. Chandan Mukherjee	Modern Trends in Inorganic Chemistry (MTIC-XXI)	Department of Chemistry, IIT Kharagpur, West Bengal, INDIA	IIT Kharagpur	14-12-2024 to 17-01-2024

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks
01	Dr. S. Sridhar	CSIR - Indian Institute of Chemical Technology, Hyderabad	Design of Novel Membrane Processes to Address Environmental Challenges and Promote Sustainable Development	05.06.2024	One-day Symposium on "Environmental Challenges, Opportunities and

					Sustainable Solutions”
02	Dr. Dipak Sinha and Dr. Thingreingam Irenaeus.	College of Agriculture, Tripura	Educational trip by 20 nos. of college students	07.08.2024	-------
03	Bhaskar Jyoti Phukan	Managing Director Numaligarh Refinery Limited	Fostering Industry-Academia Synergy: Sustainable Environmental Innovations for Northeast India’s Energy Sector	09.12.2024 to 11.12.2024	An International Conference on Environmental Challenges, Opportunities and Sustainable solutions Environment 2024:
04	Shri. Mahesh Gupta	Chairman, Kent RO Systems	Navigating Environmental Challenges: Pathways to a Sustainable Future		
05	Dr. S. Sridhar	CSIR - Indian Institute of Chemical Technology, Hyderabad	Membrane Technologies for a Sustainable Environment		
06	Dr. Arup Kumar Misra	Chairman Assam Pollution Control Board, Guwahati	Transitioning from Linear to Circular Economy: A Roadmap for Sustainable Development		
07	Dr. Kalyan Gayen	National Institute of Technology, Agartala	Sustainable Solutions to Mitigate Environmental Pollution using Isolated Microalgae and Cyanobacteria		
08	Prof. Aki Sebastian Ruhl	Technical University of Berlin, Germany	Research on Adsorptive Removal of Organic Micropollutants in Wastewater and Drinking Water Treatment		
09	Dr. Debjyoti Bandyopadhyay	Reckitt Benckiser (India) Ltd	Sustainability through Product Design and Manufacturing Practices: Harpic Case Study		
10	Prof. M.L. Kansal	Indian Institute of Technology Roorkee	Nature-Based Solutions for Wastewater Treatment in a River-bank Villages: A Case Study of Jalmana Near Panipat in Haryana		
11	Dr. K.H. Aaron Lau	University of Strathclyde Glasgow, UK	Tannic Acid-Based Sustainable Materials – from Protein and Enzyme Binding to Antimicrobial and Toxic Metal Ion Sorption Activity		
12	Dr. Abhijit Maiti	Indian Institute of Technology Roorkee	Hybrid Water Treatment Processes with Large-Scale Potential: Integrating Nano-material and Membrane Processes		
13	Prof. Abu Taleb Khan	Indian Institute of Technology, Guwahati	Greener synthetic methodologies toward novel heterocycles.		
14	Dr. Sourja Ghosh	**CSIR-Central Glass & Ceramic**	Aspects of Ceramic-Polymer Nanocomposite Membranes Towards Sustainable		

		Research Institute, Kolkata	Environmental Solutions: Prospects and Challenges		
15	Prof. Dinabandhu Sahoo	University of Delhi, Delhi	Creating Ocean Forests to Combat Climate Change		
16	Prof. Amiya Kumar Jana	IIT Kharagpur	Energy Integration in Distillation-Based Processes: Reducing Cost, Energy Consumption and CO2 Emission		

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**
01	Prof. Animes Kumar Golder (Chair & Convener)	One day Symposium on Environmental Challenges, Opportunities and Sustainable Solutions	Organized by Centre for the Environment, IITG	05.06.2024	National	50
02	Prof. Animes Kumar Golder (Chair)	Environment 2024: An International Conference on Environmental Challenges, Opportunities and Sustainable solutions	Government and private sponsors	09.12.2024 to 11.12.2024	International	200
03	Prof. S. Senthilmurugan (Convener)	Environment 2024: An International Conference on Environmental Challenges, Opportunities and Sustainable solutions	Government and private sponsors	09.12.2024 to 11.12.2024	International	200
04	Prof. Ranjan Tamuli (Co-Convener)	Environment 2024: An International Conference on Environmental Challenges, Opportunities and Sustainable solutions	Government and private sponsors	09.12.2024 to 11.12.2024	International	200
05	Prof. Ajay Kalamdhad (Co-Convener)	Environment 2024: An International Conference on Environmental Challenges, Opportunities and Sustainable solutions	Government and private sponsors	09.12.2024 to 11.12.2024	International	200

06	Prof. Chandan Mukherjee (Co-Convener)	Environment 2024: An International Conference on Environmental Challenges, Opportunities and Sustainable solutions	Government and private sponsors	09.12.2024 to 11.12.2024	International	200

STUDENTS' ACHIEVEMENTS

- Akshita Kanwar: Best Poster Presentation, Research and Industrial Conclave-Integration 24, 09th-11th August, 2024, IIT Guwahati, Assam, India.
- Akshita Kanwar: Best Poster Presentation, Environment 2024: International Conference on Environmental Challenges, Opportunities and Sustainable Solutions, 9th-11th December 2024, IIT Guwahati, Assam, India.
- Rama Karn: Oral presentation –1st position , FTBH-2025 , Organised by Birla Institute of Technology Mesra
- Rama Karn : Oral presentation, Environment 2024: International Conference on Environmental Challenges, Opportunities and Sustainable Solutions, 9th-11th December 2024, IIT Guwahati, Assam, India.
- Ravi : Poster presentation –1st position , One-day Symposium on Environmental Challenges, Opportunities and Sustainable Solutions, Organised by Centre for the Environment, IIT Guwahati
- Ravi : Oral presentation –1st position , Research and Industrial Conclave 2025, Organised by IIT Guwahati
- Shilpa Nandi: Oral presentation , Environment 2024: International Conference on Environmental Challenges, Opportunities and Sustainable Solutions, 9th-11th December 2024, IIT Guwahati, Assam, India.
- Shilpa Nandi: Poster Presentation**,** One-day Symposium on Environmental Challenges, Opportunities and Sustainable Solutions, Organised by Centre for the Environment, IIT Guwahati
- Ahana Dutta: 1st Best Student Paper, Environment 2024: International Conference on Environmental Challenges, Opportunities and Sustainable Solutions, 9th-11th December 2024, IIT Guwahati, Assam, India.
- Ahana Dutta: Best Poster presentation (Co-author), IIChE-CHEMCON 2024 , Dr B R Ambedkar National Institute of Technology, Jalandhar, Punjab, India
- Gunanka Hazarika: Best Poster presentation , International Conference for Frontier Areas of Science & Technonology - 2024 (ICFAST 2024) Organised by JSPS Alumni Association and IIT Guwanati
- Arun Sathyan : Best Poster presentation , National Conference on Sustainable Practices for Environmental Protection (NCSPER 2025), Thapar Institute of Engineering and Technology, Patiala
- Rajib Nandi: Exchange Program - Global Expert Program 2024 Gifu University, Japan
- K. Zamminsion: JST's India Young Researchers Invitation Program FY-24 (LOTUS Program), Awarding body: Japan Science and Technology Agency, Govt. of Japan; Host Institute: Tohoku University, Japan
- Prabhakar Choudhary: Global Expert Program 2024-2025, Gifu University
- Debolina Ghosh, Oral presentation , Environment 2024: International Conference on Environmental Challenges, Opportunities and Sustainable Solutions, 9th-11th December 2024, IIT Guwahati, Assam, India.
- Tchummegne Kouam Ida: Poster Presentation, One-day Symposium on Environmental Challenges, Opportunities and Sustainable Solutions, Organised by Centre for the Environment, IIT Guwahati
- Madhavi Kreeti: Visiting International Research Student, University of British Columbia, Vancouver Campus

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
1.	A.B. Kunnumakkara	University of Calicut, Kerala, India,	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.
2.	Aiyagiri Ramesh	CFTRI, Mysore	Professor	Nanobiotechnology, Chemistry-Biology Interface for Developing Antibacterials and Sensors
3.	Ajay Kalamdhad	IIT Roorkee	Professor	Solid waste management, mechanical composting and vermicomposting, analysis of solid wastes, water and waste water Treatment
4.	Anamika Barua	University of Leeds, UK	Professor	Socio-economic understanding of climate risk and resilience, urban living and sustainable cities
5.	Animes K. Golder	IIT Kharagpur	Professor	Electro- and bio-remediation of heavy metals, Physiochemical water treatment techniques, Homogeneous and heterogeneous catalytic AOPs, Extraction and separation of value added chemicals from natural sources
6.	Arun Goyal	IIT Kanpur	Professor	Molecular Biology, Protein Engineering, Structural and Functional Proteomics of Carbohydrate active enzymes and other industrial microbial enzymes.
7.	Arup Kumar Sarma	Gauhati University	Professor	Modeling & simulation in Free Surface Flow, Heuristic Method in Reservoir Optimization, GIS based Watershed Modeling
8.	Bhisma K. Patel	IIT Kanpur	Professor	Bio-Organic Chemistry and Newer Methodologies, Green Chemistry, Heterocyclic Chemistry
9.	Bishnupada Mandal	IIT Kharagpur	Professor	Separations with chemical reaction, Molecular based membrane separation, Modeling and simulation of separation processes, Environmental pollution control
10.	Chandan Das	IIT Kharagpur	Professor	Membrane based separation technology, Bioremediation using *Spirulina Platensis*,

				blue-green microalgae, Supercritical fluid extraction for the production of peonidin, peonidin 3-glucoside and cyanidin 3-glucoside from black rice and 6-gingerol, vitamin C content, essential oil content from ginger of North East India of North East India, Natural products, namely, aloe vera, polyphenol, stevia, lycopene extraction and purification
11.	Chandan Mukherjee	Max-Planck Institute for Bioinorganic Chemistry, Muelheim, Germany	Professor	Oxidation Catalysis, Molecular Magnetism, Synthesis of Single-Molecule Magnets (SMMs), MRI Contrast agents, Water Oxidation Chemistry
12.	Chivukula V. Sastri	University of Hyderabad	Professor	Biomimetic Chemistry and Chemical Biology
13.	Debasish Manna	University of Illinois, Chicago, USA	Professor	**Ion transport, Liposomal drug delivery, Drug discovery and immunotherapy.**
14.	G Pugazhenthi	IIT Kanpur	Professor	Membrane Separation Process, Polymer Nanocomposite, Nanomaterials, Adsorption, Wastewater Treatment
15.	Gopal Das	IIT Kanpur	Professor	Supramolecular, Bioorganic chemistry and Biomineralization
16.	Gurvinder K. Saini	Andhra University, Vishakapatnam	Professor	Fungal Biotechnology
17.	Kannan Pakshirajan	IIT Madras	Professor	Biological removal and recovery of inorganic compounds from wastewaters; Biological treatment of industrial wastewaters; Biodegradation of xenobiotic, Biofuels and other Biotechnological Products: Production; Process design, kinetics and optimization; Environmental applications
18.	Karuna Kalita	• University of Nottingham, UK	Professor	Coupled Dynamics of Electro-Mechanical Systems | Vibration | Rotordynamics |
19.	Kaustubha Mohanty	IIT Kharagpur	Professor	Bio separation, Biofuels, Biological wastewater treatment, Membrane technology, Ionic liquids
20.	Krishna Pada Bhabak	Indian Institute of Science, Bangalore, India	Associate Professor	Design and Synthesis of Potential Bio-active Organic Compounds, Anti-cancer and Antioxidative Properties of Synthetic Organic Compounds, Selective Fluorescent Delivery Agents for Anti-cancer

				Compounds, Understanding their Behavior at Cellular Environment
21.	Lal Mohan Kundu	LMU Munich, Germany	Professor	Nucleic Acid / Peptide Chemistry, DNA / RNA Damage and Repair, DNA Hybrid Materials
22.	Lalit M. Pandey	IIT Delhi	Professor	Surface and interfacial science particularly in the area of Bio-interfaces and Biomaterials, Environmental Biotechnology
23.	M. K. Dutta	Gauhati University	Professor	Microeconomics, Agricultural Economics, Environmental Economics, Econometrics
24.	Manabendra Ray	IIT Kanpur	Professor	Design and synthesis of coordination complexes or assemblies of complexes with chiral ligands to use as chiral host to facilitate binding and separation of chiral molecules.
25.	Meena Khwairakpam	IIT Roorkee	Associate Professor	Solid waste management • Mechanical composting and vermicomposting • Analysis of solid wastes • Biological Waste treatment • Integrated Waste Management • Water Supply and Sanitation
26.	Mihir K. Purkait	IIT Kharagpur	Professor	Membrane Technology , preparation/fabrication of ceramic/ polymeric membranes and their application in RO, NF, UF and MF), Treatment of Industrial Effluent Surfactant mediated separation, Responsive materials for environmental, biological and chemical separation
27.	Mohammad Jawed	IIT Kanpur	Professor	Biological Processes, Anaerobic Wastewater Treatment, Heavy Metal Removal and Recovery, Water Treatment and Supply, Domestic & Industrial Wastewater Treatment
28.	Pankaj Tiwari	University of Utah, Salt Lake City, USA, 2012	Professor	Conventional and unconventional energies, Reservoir Engineering, Complex organic solids, Biomass conversion, Pyrolysis process, Kinetic analysis
29.	Pranab Kumar Ghosh	IIT Kharagpur	Professor	Water treatment for domestic and industrial use, Domestic and Industrial wastewater treatment and Sludge treatment by physicochemical and biological process.
30.	Ramagopal VS Uppaluri	University of Manchester, England	Professor	Multi-heavy metal removal from waste streams using chitosan-based derivatives; Jeevamrutha bio-fertilizer; Machine learning applications for large scale municipal solid waste management

31.	Ranjan Tamuli	Centre for Cellular and Molecular Biology, Hyderabad, Degree awarded by JNU, New Delhi.	Professor	Fungi, Environment, signaling
32.	Sandip Paul	IIT Kanpur	Professor	Computational Biophysics and Chemistry.
33.	Sanjukta Patra	Central Food Technological Research Institute, Mysore	Professor	Enzymes and Microbial technology
34.	Saswati Chakraborty	IIT Mumbai	Professor	Water and Wastewater Treatment, Biodegradation of Industrial Wastewater and Removal of Heavy Metals from Wastewater
35.	Senthil K. Sivaprakasam.	Central Leather Research Institute, Chennai, India.	Professor	Biocalorimetry, Bio-Process Analytical Technology (BioPAT) (synthesis of recombinant proteins and value-added bioproducts), Real-time monitoring and control of bioprocess systems (BioPAT) (Biocalorimetry, Dielectric Spectroscopy and Exhaust Gas Analyzer), Mathematical modeling of bioprocess systems, Monitoring and control of environmental bioprocess systems leading to value-added products
36.	Senthilmurugan S	IIT Delhi	Professor	Modeling & Optimization of Novel Processes, Process Design & Operation of Membrane Separation Processes, waste water treatment for Process Industries, Novel Desalination Technologies, Smart Water Grid, Waste to Energy
37.	Sharad Gokhale	IIT Delhi	Professor	Urban Vehicular Pollution,Industrial Stack Pollution,Indoor Air Pollution,Environmental Impact Assessment, Air Quality Modeling
38.	Subashisa Dutta		Professor	Satellite Remote Sensing and GIS for Water resources Management, Computational river hydraulics and its applications, Watershed and Irrigation Management
39.	Subhendu Sekhar Bag	IIT Kharagpur	Professor	Environmental Chemical Biology, Environmental Nanotechnology, Organic Chemistry, Environmental Chemistry
40.	Subrata Kumar Majumder	IIT Kharagpur	Professor	Process Intensifications in Chemical Processes, Intensification in environmental process system, Micro-nano bubble science and technology and its applications, Microchannel-based and Jet driven gasaided extraction, Mineral Beneficiation,

				Enhanced Oil Recovery by Micro nanobubble , Multiphase Flow and Reactor Development
41.	Tapas Kumar Mandal	IIT Kharagpur	Professor	Multiphase multiphase flow, Bio flow & Measurement i
42.	Tamal Banerjee	IIT Kanpur	Professor	Phase equilibria of ionic liquids, Molecular simulations, Global optimization, Statistical thermodynamics.
43.	Utpal Bora	Institute of Genomics & Integrative Biology, Delhi (degree awarded by GGS Indraprastha University, Delhi).	Professor	Biodiversity, Ecology, Environmental Informatics, Environmental Policy
44.	Vaibhav V. Goud	IIT Kharagpur	Professor	Heterogeneous Reactions, Bio-energy and Green Engineering, Bio lubricant, Utilization of Lignocellulosic Biomass for Fuel/Chemicals, Supercritical Fluids
45.	Venkata V. Dasu	IIT Madras	Professor	Bioprocess development (upstream to downstream), Metabolic Engineering, Bioenergy.
46.	Vijay S. Moholkar	University of Twente, Netherlands	Professor	Bubble dynamics, CFD, Sono-process engineering, Bio-mass gasification
47.	Vimal katiyar	IIT Bombay	Professor	Synthetic and Natural Polymers, Polymer Processing, Biothermoset, Nanobiocomposite, Organic Solar Cells.
48.	Vishal Trivedi	Central drug research institute, Lucknow	Professor	Intracellular Signaling in Plasmodium falciparum.
49.	C. Mallikarjuna	IIT Delhi	Professor	Traffic flow theory and Modeling *Traffic data collection and analysis *Travel demand modeling
50.	Peela Nageswara Rao	IIT Kanpur	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
51.	Pranab Kumar Mondal	IIT Kharagpur	Associate Professor	Microfluidics and Microscale Transport Processes Laboratory
52.	**Kalishankar Bhattacharyya**	IACS, Kolkata	Assistant Professor	Theoretical and Computational Chemistry, Heterogeneous Catalysis, Photochemistry, Machine Learning, Physical Organic Chemistry

53.	Abhishek Singh		Assistant Professor	Automotive Design, Product Design, Graphic Design, Design Research
54.	Siddhartha Mukherjee	IIT Kharagpur	Assistant Professor	Microfluidics, Nanofluidics, Active matter, Complex fluids, Fluid-structure interaction

Centre for Indian Knowledge Systems

Year of Establishment of the Department /Centre: 2021

Academic Programmes Offered: PhD

LABORATORY FACILITIES: EEG, Rotary evaporator, Ultrasonic pulse velocity tester, rebound hammer

No. of Laboratories with brief introduction: One for yoga and herbal medicine study

MAJOR EQUIPMENT AND FACILITIES ACQUIRED (1 APRIL 2024– 31 MARCH 2025): Rotary evaporator, Ultrasonic Pulse velocity tester

MAJOR AREAS OF RESEARCH AND DEVELOPMENT: Temple Architecture, Sustainable Development, Socio-ecological Systems, Siddha and Yoga

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL

Sl. No.	Name of Faculty/Post-doc fellow	Name of Conf./Workshop	Place	Date	International/ National
1	Prof. Uday Shanker Dixit	International Conference on Bharatiya Traditional Knowledge System	NITTTR Kolkata	July 26-27, 2024	International
2	Prof. Uday Shanker Dixit	Bhartiya Jnana Sourabha, FDP cum International Conference	Sedam, Kalaburagi, Karnataka	January 30 to February 5, 2025	International
3	Prof. Uday Shanker Dixit	Edu Elevate, Northeast Educator's Conclave	Assam Downtown University, Guwahati	December 21, 2024	National
4.	Prof. Uday Shanker Dixit	National Conference on Indian Knowledge Systems (IKS) in Higher Education, A Step Towards Viksit Bharat 2047	Indian Institute of Information Technology Senapati, Manipur.	February 25-26, 2025	National
5.	Project Officer Dr. Faladrum Sharma	International Conference on Recent Advancements in Mechanical Engineering (ICRAME 2025)	NIT Silchar, Assam	February 28–March 2, 2025	International
6.	Prof. Uday Shanker Dixit	Sanskriti Conclave 2025	CIT Kokrajhar, Assam	March 1-2, 2025	National
7.	Prof. Uday Shanker Dixit	Workshop on Indian and Indigenous Knowledge Systems (IIKS)	Assam Don Basco University, Guwahati	February 21-22, 2025	National
8.	Prof. Uday Shanker Dixit	Silver Jubilee function	Jawahar Navodaya Vidyalaya, Darrang, Assam	December 22, 2024.	National
9.	Prof. Uday Shanker Dixit	Workshop: Vikasit Bharat 2047-Atmanirbhar North East	NIT Meghalaya, Sohra	November 15-16, 2024	National

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Sl. No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
01	**Uday Shanker Dixit**	IKS and NEP2020	Royal Global University, Assam	Guwahati, Assam	April 25, 2024
02	**Uday Shanker Dixit**	IKS and NEP2020	Utkal University, Bhubaneswar	Online	May 9, 2024
03	**Uday Shanker Dixit**	Importance of Puranas	Utkal University, Bhubaneswar	online	September 6, 2024
04	**Uday Shanker Dixit**	Relevance of the Puranas in the modern age	Himalaya Calling, Global Summit: Challenges & Opportunities in the	Online	September 10, 2024

			Himalayas, UPES, Dehradun		

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Sl.No	Name	Name of Inst./Univ./Org.	Date	Purpose/ Name of Lecture
1.	Mr. Vijay Vikram Singh	Freelancer, Mumbai	15-05-2024	The importance of failing and the art of Communication understood thought the lens of our Ancient Teaching.
2.	Dr.Deepak Paramashivan,	Department of HSS, IIT Madras	04-08-2024	Music of India -A Comparative Study of Karnatak, Hindustani and other Regional Forms of Music.
3.	Dr.Aditya Kolachana	Department of HSS & CIKS, IIT Madras.	05-08-2024	History of Exact Sciences in India
4.	Prem Gopal Das	ISKCON Kolkata	10-08-2024	Mindfulness in Modern Life
5.	Alok R. Chaturvedi	Daniels School of Business, Purdue University, West Lafayette.	26-09-2024	Karma Computing: AI Ethics Inspired by Dharma
6.	Dr. Raj Vedam	Visiting Faculty, Hindu University of America USA, Rishihood University, India. Arshan Seva Kendra, Coimbatore, Advisory Coundil Dharma Civilization Foundation.	23-10-2024	Historicity of Indian Knowledge Systems
7.	Dr. Utpola Borah	Arts Learning Expert at the Ohio Arts Council, USA, Columbus Metropolitian Library Ohio, USA.	21-11-2024	Indigenous organology of North East India: classification, documentation & preservation.
8.	Dr Hans Utter	Arts Learning Expert at the Ohio Arts Council, USA	21-11-2024	“The Sitar as Object”
9.	Swami Samanand Giri	Heads two Math, one at Maheshwar, MP, and another ashram at Haridwar	03-01-2025	Insights from Indian Philosophies for a Fulfilling Life
10.	Shri Rupesh Mathur	Uttar Purvanchal (North East Bharat) Sampark Pramukh-Vivekananda Kendra	03-01-2025	Swami Vivekananda: Life and Message
11.	Prof. Varadraj B. Bapat	IIT Bombay	28-01-2025	Meeting and Interaction with IKS Research Scholars
12.	Prof Dilip Kr. Chakrabarti	Department of Archaeology at Cambridge University	30-01-2025	Interactive session on archeology
13.	Dr. Arpana Lalingkar	Senate member, Pune University	30-01-2025	Conceptualization of the Spiritual Concept Mithya Using Scientific and Mathematical Concepts – A Discussion

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	**Organizing Secretary: Dr. Lalit Mohan Pandey**	Curtain Raiser Event: - International Conference on Unraveling Indian Knowledge Across Asia (UNIKAA 2024)	Pandit Hemchandra Goswami Foundation	April 6, 2024	**International**	**150**
2	Organizing Secretary: Prof. Sukanya Sharma,	8th National Young Historans Seminar 2024(2nd Chapter):	NITs, Pandit Hemchandra Goswami Foundation etc.	September 21-22, 2024	National	200
3	**Organizing Secretary: Dr. Lalit Mohan Pandey**	International Conference on Unraveling Indian Knowledge Across Asia (UNIKAA 2024)	NITs, Pandit Hemchandra Goswami Foundation etc.	October 3-5, 2024	International	300
4	**Organizers: Dr. Lalit Mohan Pandey, Prof. Gagan**	Think India, Northeast Summit 2025	NITs, NEC etc.	February 22-23, 2025	National	300

AWARDS AND HONOURS

- Uday Shanker Dixit: Editorial Contribution Award 2025, Springer Nature

STUDENTS' ACHIEVEMENTS

- Ms. Jaya Bharti Singh: Best paper award, International Conference on Unraveling Indian Knowledge Across Asia (UNIKAA 2024)
-

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
1.	Prof. Sukanya Sharma	Deccan College PG & Research Institute, Pune	Professor	Ancient Indian History, Culture and Archaeology
2.	Prof. TV Bharat	IISc Bangalore	Professor	Ancient Indian Architecture (Vastu)
3.	Prof. Arbind K. Singh	IISc Banglore	Professor	
4.	Dr. Indu Siva Ranjani G	IIT Madras	Assistant Professor	Sustainable building materials, energy efficient structures, lightweight concrete
5.	Prof. Konjengbam Darunkumar Singh		Professor	
6.	Dr. Pankaj Kalita		Associate Professor	
7.	Prof. Prabhu Venkataraman		Professor	
8.	Prof. Ramagopal Uppaluri		Professor	

9.	Prof. S. Senthilvelan		Professor	
10.	Prof. Shakuntala Mahanta		Professor	
11.	Dr. Srinivasan Krishnaswamy	IIT Bombay	Associate Professor	Nyaya
12.	Prof. Uday Shanker Dixit	IIT Kanpur	Professor	Modelling, History of Science & Technology, Folktales, *Puranas*
13.	Prof. Vimal Katiyar		Professor	
14.	Prof. Arun Goyal		Professor	
15.	Prof. Amarendra Kumar Das	IIT Guwahati	Professor	
16.	Prof. Utpal Bora		Professor	
17.	Dr. Santosh Jagtap	University of Cambridge, UK	Associate Professor	Design process improvement, art and craft, design and culture, design for sustainability
18.	Dr. Mithilesh Kumar Jha		Assistant Professor	
19.	Dr. Lalit Mohan Pandey	IIT Delhi	Associate Professor	Health, Puranas
20.	Dr. Supradip Das	IIT Guwahati	Assistant Professor	Design for craft revival, Indigenous product design and development, Design for Sustainability

Centre for Nanotechnology

YEAR OF ESTABLISHMENT OF THE CENTRE: 2004

ACADEMIC PROGRAMMES OFFERED: Doctor of Philosophy PhD

LABORATORY FACILITIES

The Centre for Nanotechnology have a total of 29 numbers of laboratories in the existing facilities, out of which one has been set up in the CIF. The basic instruments/equipment facilities available in each laboratory are listed below:

Sl.No.	Name of the lab	Lab No.	Name of the instruments/equipment	No. of instruments
1.	**Materials Characterization Lab**	**L001**	AFM-TERS	01
			Raman spectroscopy	01
			Material Printing System	01
			• UV IOzone Tip cleaner	01
			Fume Hood	01
			Glove Box	01
			• Hot plate	01
			• Analytical balance	01
			• Spin coater	01
			• Mini sputter coater	01
			• AAA Solar Simulator	01
				01
			UV-Visible Spectrophotometer	01
			Wire Bonder	01
			DWS Rheolab	01
			Crypgenic Photo luminescence	01
2.	**ISO-5 Cleanroom**	**L002**	FESEM-Electron Beam Lithography	01
			Mask writer	01
			Double Sided Mask Aligner	01
			Upright Optical microscope	01
			Plasma cleaner	01
	ISO-6 Cleanroom	**L002**	Thermal and E-Beam Evaporator	01
			RF Sputtering	01
			Electro Spinning Device	01
			PECVD	01
			RIE	01
			Laser Micro Machining	01

	Cleanroom (Chemical Storage Room)	**L002**	Ultrasonic Processor	01
			Ultrasonic Bath	02
			Bench Top Incubator cum orbital Shaker	01
			Magnetic stirrer with hot plate digital	04
			Digital pH Meter	01
			Analytical Balance	02
			Lyophilizer	01
			Carbon Coater	01
			Refrigerated High Speed Centrifuge	01
			-20 degree Upright Freeezer	01
3.	**Electrical Characterization Lab**	**L003**	PLD	01
			Controlled Environment Chamber	01
			RF Probe Station • RF Probe Station • Vector Network Analyzer • RF signal generator • RF frequency counter	 01 01 01 01
			AC/DC Probe Station • DC Probe Station • IV CV Pulse parametric Analyser • Impedance Analyser • Chemical Impedance Analyzer • Digital Storage Oscilloscope • Function Generator • Digital multimeter • DC Power supplies	 01 01 01 01 02 01 01 01 01
			DC probe Station	01
4.	**Optical Characterization Lab**	**L004**	High End Confocal Microscope	01
			HPLC	01
5.	**Data Science and Analytics Lab**	**L101**	These laboratories are functional and operational	-
6.		**L102**	3D Bioprinter setup with accessories	01

7.	**Nano - Bioengineering & Regenerative Medicine Laboratory**		3D Bioactuation setup with accessories	01
8.	**Nanocatalysis Lab**	**L103**	These laboratories are functional and operational	-
9.	**Chem Dist Lab**	**L104**	Electrochemical Potentiostat	01
			Scanning Probe Microscope: Veeco (Model)	01
			Gas Chromatograph (Centurian Scientific)	01
			Rotavapor	01
10.	**Molecular and Material Research Lab**	**L105**	Laminar air flow	01
			Ultra-low temperature freezer (-80 0C)	01
			UV spectrophotometer	02
			Microwave oven	01
			Agarose gel documentation system, Gel logic	01
			Regulated DC Power Supply	01
			Electromagnet	01
			Digital Gauss meter	01
			Digital Weighing balance	01
			Inverted Microscope	01
			Nanovoltmeter	01
			Source Meter	01
			Refrigerated Centrifuge	01
			Magnetic stirrer	01
11.	**Nanobiotechnology Lab**	**L106**	BD FACS Calibur	01
			UV-Vis Spectrophotometer	01
			Fluorescence spectrophotometer	01
			FluoroLog-3	01
			Water purification system Milli Q / Elix	01
			Dynamic Light Scattering (DLS), Malvern Zetasizer Nano	01
			Micro plate reader	01
			Real Time PCR (Applied Bio system)	01
			Vortex	01
			Shaking Incubator	01

			Rocker	01
			Refrigerator	01
			C02 incubator	01
			Epi fluorescence microscope (Nikon eclipse)	01
			Water bath	01
			Digital Weighing Balance	01
			Horizontal Laminar hood	01
			Horizontal Laminar Air Flow Work Station	01
			Hot air oven	01
			Refrigerated Bath Circulator	01
			Portable autoclave	02
			Digital Weighing Balance	03
			pH meter	03
			Microwave oven	01
			Cooling centrifuge (Sigma)	02
			Agarose gel electrophoresis set up	01
			Rotary Vacuum	01
			UV Transilluminator	01
			Magnetic stirrer	05
			Mini water bath	01
			Dessicator	03
			Spin coater	02
			Bacteriostatic incubator	01
12.	**Research Scholar Lab (JBMSHST)**	**L201**	These laboratories are functional and operational	-
13.	**Research Laboratory I (JBMSHST)**	**L202**		-
14.	**Soft Materials System Laboratory**	**L203**		-
15.	**Nanoelectronic Devices and Circuits Laboratory**	**L204**	Analog Digital Scope (ADS) HM507, HAMEG Instruments, 50 MHz 100MS/s.	01
			Digital Oscilloscope (Yokogawa) DL9040 5GS/s 500 MHz.	01
			Function Generator (Agilent) 33120A 15MHz	01

			Universal Counter (Agilent) 53131A 225 MHz	01
			Multifunction Generator (Caddo) 4080 20 MHz	01
			Triple Power Supply (Scientech) ST4071 5V/30V	01
			Multiple Power Supply (Scientech) ST4077	01
			Dessicator	02
			Refrigerator	01
			Signal generator (Agilent), 3GHz N9310A	01
			Hot plate	01
16.	**Quantum Electronics and NEMS Laboratory**	**L205**	These laboratories are functional and operational	-
17.	**Advanced Nanomaterials and Nanosensors Laboratory**	**L206**	Laboratory developed (assembled) Chemical Vapour Deposition (CVD)	02
			Thermal Evaporation coating system	01
			Electron Beam deposition system	01
			RF Sputtering deposition system	01
			Rapid Thermal Annealing system	01
			Spin coating system	01
			Bath and Tip Sonication	02
			Laboratory developed (assembled) Probe station for I-V and Photo conductivity measurements	01
			Heating woven	01
			KBR pallet maker for FTIR measurement.	01
			Gas Sensor System	01
			PVD Chamber	01
			Autoclave	01
			Dessicator	03
			Depth Coater	01
			Ball Milling System	01
18.	**Functional Ceramics and Thin Films**	**L207**	These laboratories are functional and operational	-
19.	**School for Skill (M/s JSV)**	**L208**	Medical equipments	-

20.	**Soft Materials and Micro/Nano Fluidics**	**L301**	High end upright microscope	01
			Thermal stage	01
			High speed camera	01
			High speed camera	01
			UV-Ozone cleaning unit	01
			Spin coater	02
			Fume chamber	01
			Clean bench	01
			Ultrasonic cleaning bath	01
			Millipore water supply unit	01
			AC/DC power supply units	03
			Electromagnet with Gaussmeter	01
			Microbalance	01
			High speed centrifuge	01
			Air furnace	01
			High resolution camera	01
			Vacuum furnace	01
			High Speed computational servers loaded with software	01
			Flexible Electronics Printer	01
			Biosensor Printer	01
			Inverted Fluorescent Microscope	01
21.	**Research Laboratory II (JBMSHST)**	**L302**	These laboratories are functional and operational	-
22.	**Biotechniques and Bioinstrumentation Lab**	**L303**	Flow Cytometry	01
			Chemi doc MP Imaging	01
			Fluorescent Cell Imager	01
			-20°C Upright Freezer	01
			2-10°C Refrigerator	01
			LN2 Container	01
			Water bath	01
			Refrigerated Micro-Centrifuge	01
			CO2 Incubator	01
			Table Top Multipurpose Refrigerated Centrifuge	01

			Real Time PCR System	01
23.	**Diagonostics and Device Lab (ICMR)**	**L304**	Auto Analyzer	
			• Electrolyte Analyzer	01
			• Biochemistry analyzer	01
			• Hematology Analyzer	01
			• Multiplate Reader	01
			• Disc Based Clinical Analyzer	01
			• Erythrocyte Sedimentation Rate Analyzer	01
			• Coagulation Analyzer	01
				01
				01
			Advanced Elisa Basic Unit	01
			• Visualization Unit	01
			3D Printer	04
			• 3D Printer for Fabrication	01
			• Material Extrusion System	01
			• Material Extrusion System	02
			• Fused Filament Fabrication Printer for polymers	04
			• Fused Filament Fabrication Printer for polymer Fabrication	01
			• Fused Deposition Modelling Printer for polymer Fabrication	01
			• Stereolithography System	01
			• Laser Ablation System	01
			• Vinyl Plotter for Laser Ablation Masks	
				01
			Ultimaker 3FDM 3D printer	01
24.	**NanoEnergy Laboratory**	**L305**	These laboratories are functional and operational	
25.	**Functional Interfaces Lab**	**L306**	Goniometer	01
26.	**Fuel Cell Testing lab**	**L005**	Fuel Cell Testing	-
27.	**PCB Pototyping**	**L006**	Manual-SMT PCB Solder Paste Printing Machine (Model: P6)	01
			Automatic Pick & Place Systems (Model: CHMT36VA)	01
			Table top SMD reflow oven-5 Zone (Model: YMS-FC-5500-TT)	01
			Wave Soldering Machine (Model: DWSM180)	01
			ESD Quality Table (Model: PBSS12060B)	01
28.	**Optoelectronic Device Fabrication Lab**	**In CIF**	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.	
29.	**Micro-Nanoelectronic Characterization Lab**	**Core III**	Oxidation Diffusion Furnace	01
			Wet Bench	01
			DI water system	01
			Analytical Balance	01
			Ultra-filtration unit	01
			UV Ozone	01
			Hot plate	01
			Sonicator	01
			Refrigerator	01

MAJOR EQUIPMENT AND FACILITIES ACQUIRED (1 APRIL 2024 – 31 MARCH 2025):

Equipment

1. Fume Hood

Facilities:

1. ISO 5 and 6 Clean Rooms
2. Optical Characterization Lab
3. Materials Characterization Lab
4. Electrical Characterization La
5. SWASTHA labs
6. ICMR labs
7. Chem Dist Lab
8. Cell Culture Lab
9. Data Science Lab
10. Nanocatalysis Lab
11. Nanobiotech Lab

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.

The major projects sanctioned at the Centre are being implemented at the Centre with experts from multi-disciplinary areas of science and engineering:

1. SWASTHA – Smart Wearable Advanced nanoSensing Technologies in Healthcare ASICs, 5(1)/2022– NANO, MeitY (4200 L).
2. Centre for Excellence in Disruptive Innovations & Product Development for Affordable Rural Healthcare, 5/3/8/20/2019-ITR, ICMR (1506 L)
3. Indian Nanoelectronics Users' Programme - Idea to Innovation (INUP-i2i), 5(1)/2021-NANO, MeitY, 2021-2025) (923 L).
4. Healthcare Bio-Entrepreneurship Ecosystem Encompassing Biomaterials, Industrial Biotechnology and Diagnostics, BT/BIRAC/BI-IITG/2020, BIRAC, 2021 (498 L)
5. Transformation of Ethanol to Fuel and Speciality Chemicals, Funded by ChemDist Pvt Ltd, (March 2022-2027)

The major areas of research and development are as follows:

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, Memory and computing technology, Semiconductor and quantum materials technology, Spintronics.

Nanoscale science and technology group is working in the broad areas of nanoscale science and technology involving synthesis, reaction and organization of nanoscale materials and their application in problems related to Chemistry and Biology.

Nanobiotechnology group is pursuing interdisciplinary collaborative research at the Centre for Nanotechnology on "nanoparticles and nanocomposites" and Multifaceted approach in cancer therapeutics which encompasses Drug Repurposing, Nanotheranostics and targeting EMT Dynamics.

Nanophysics group is working on the various aspects on the defects of carbon nanotube and their possible application as sensor, Condensed Matter Physics; High-k and low loss materials, FerroelectricsCeramics, Oxide thin films Nanomaterials. They have developed a device for 'Low temperate microwave sintered phase pure AlN ceramics comprising rare earth oxide additives'.
Micro and Nano Fluidics group is working in the areas of Micro/nano Mechanics of Soft Matter, Rheology of Viscoelastic Materials, Liquid Crystals, and Smart Materials, Intermolecular forces, Colloids and Interfacial science, Micro/Nano Fluidics, Electro- and Magneto-hydrodynamics, Electrokinetics, Self-Organized Solar Cells and Light Emitting Devices, Advanced Flow Microreactors for Artificial Photosynthesis, Hydrogen Production, Bio-Synthesis, and CO2 sequestration, Synthesis and Applications of micro/nano Robots, MEMS Theranostic devices and Point-of-Care-Testing Health Care Devices. They have recently developed device for 'POC detection of oleophilic biomarkers in hydrophilic analytes'; 'POCT Device to Detect Cervical Cancer Specific Biomarker'; 'A Point-of-Care system to Detect Rest Tremors of Human Limb'; 'Portable Modular Colorimetric Device'

Organometallics and Catalysis group focuses on Organometallics, Catalysis and Organofluorine Chemistry, 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. They have developed a process for 'Upgradation of ethanol or alkylation of alcohols'.

Tissue Engineering, Biomaterials, Stem Cells and Regenerative Medicine group have developed devices for 'Antimicrobial coatings and preparation process thereof'; 'Hemostatic silk fibroin composite powder'; 'Silk-Liver ECM composite for bioartificial liver'.

Bio-inspired Polymer Materials, Drug Delivery, Open Microfluidics, Chemical Sensor group have developed methods for 'A coating composition and a process of preparation thereof and 'A Method of Preparing Disposable Water Repellent Mask and a Product Thereof'.

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).** Besides manpower training and basic research, the Centre aim to develop sensors and Transfer of Technology (ToT) to the Start-Up companies. 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 :

- **Transfer of Technologies**
  - Point-of-care optoplasmonic pathogen sensor for the rapid detection of UTI.
  - Point-of-care biosensing of Urinary tract infection employing optoplasmonic surfaces embedded with metal nanotwins.
  - PHOSPHINE-FREE NNN PINCER-GROUP(VIII) METAL CATALYSTS (M=Fe, Ru, Os) AND PROCESS FOR ALKYLATION OF ALCOHOLS AND BIOFUEL PRODUCTION.
  - Point-of-Care-Testing Device for Fingerprint Bilirubin Detection.
- Comprehensive in-silico and in-vitro studies identified potential repurposed drugs for various cancer therapy. Additionally, suitable co-therapeutic modules were developed to target multiple signaling pathways in triple negative breast cancer (TNBC) and lung adenocarcinoma (LUAD) cells. Recombinant proteins were discovered to possess anti-neoplastic properties and modulate cancer cell signaling. Suitable drug delivery vehicles/ nanoparticles were established to target the tumor microenvironment of metastatic TNBC cells for enhancing drug susceptibility.
- Concomitant achievement of all three performance pillars of a supercapacitor energy storage device, namely gravimetric, areal, and volumetric capacitance, is a grand challenge. Nevertheless, its fulfilment is indispensable for commercial usage. A unique

collapsed hydrogel strategy is introduced to develop MXene/cellulose nanofiber (CNF) based densified electrodes that displays remarkably high areal capacitance of 16 F cm−2 while simultaneously exhibiting a high volumetric capacitance of 849.8 F cm−3 at an ultrahigh mass loading of up to 73.4 mg cm−2. (published in high-impact Journal Small (Small 2024, 20, 2400119)

- We developed a unique methodology to grow highly efficient catalysts for hydrogen generation through water splitting. We succeeded in selectively growing amorphous, crystalline ultra-small nanoclusters of noble metals (Ru, Ir, Pd) and single-atom catalysts over graphitization-tunable carbon support. The resulting ultrafine (≈0.7 nm) amorphous ruthenium exhibits state-of-the-art performance in the hydrogen evolution reaction (HER), requiring one of the lowest reported overpotentials of only 23.0 and 285.0 mV to achieve current densities of 10 and 500 mA cm−2, respectively, with exceptional operational stability. This result was published in the highly reputed Journal, Advanced Functional Materials (Adv. Funct. Mater. 2024, 34, 2315460)

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL

Sl. No.	Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
1.	Prof. Dipankar Bandyopadhyay	FINS 2024	IIT Guwahati	Oct 2024	National
2.	Prof. Dipankar Bandyopadhyay	CIHSR, 2024	Nagaland	April 2024	National
3.	Prof. Dipankar Bandyopadhyay	ICEM 2024	IIT Madras	Oct 2024	International
4.	Prof. Dipankar Bandyopadhyay	Hydrobio-IRN-CNRS 2024	-	Oct 2024	International
5.	Prof. Dipankar Bandyopadhyay	ICEM 2024	IIT Madras	Oct 2024	International
6.	Prof. Dipankar Bandyopadhyay	Art of Flu-Mech @ Mesoscale	Karpagam Academy of Higher Education, Coimbatore	July 2024	International
7.	Dr. Akshai Kumar A S	American Chemical Society National Meeting, Global Virtual Symposium, Fall 2024	Virtual	18/08/2024 – 21/08/2024	International
8.	Dr. Akshai Kumar A S	Materials Chemistry & Catalysis' MCC-2025	Tezpur University, india	March 7-8, 2025	National
9.	Dr. Akshai Kumar A S	Catalysis (CATSYMP-24) & Energy'' (CSCME-2025) as a part of Golden Jubilee celebrations of the Catalysis Society of India (CSI)	Thapar Institute of Engineering And Technology (TIET), Patiala	February 23 – 26, 2025	International
10.	Dr. Akshai Kumar A S	MMM-4 2025	IIT Bombay	February 9 – 12, 2025	International
11.	Dr. Akshai Kumar A S	CACEE 2024	TIFR Bombay	December 16 – 21, 2024	International
12.	Dr. Akshai Kumar A S	ISCHA 2024	IIT Bombay,	December 6 – 9, 2024	International

13.	Dr. Akshai Kumar A S	30th International Conference on organometallic chemistry	Jaypee Palace, Agra	14 - 18 July, 2024,	International
14.	Dr. Akshai Kumar A S	International Conference on Environmental Sustainability, Organised by on	St. Aloysius (Deemed to be University)	April 5-6, 2024.	International
15.	Biman B. Mandal	International Conference on Advances and Challenges in Medical Technology Translation (TransMedTech-2024)	Thiruvananthapuram, Kerala, India	12/12/2024-14/12/2024	International
16.	Biman B. Mandal	International Conference-The Future is Here II: Exploring New Frontiers of Ocular Research	L. V. Prasad Eye Institute KAR Campus, Hyderabad, Telangana, India	09/01/2025-11/01/2025	International
17.	Prof. Siddhartha Sankar Ghosh	Indo Japan Symposium on Nanotheranostics (InJaNa 2024)	IIT Roorkee	23/04/2024	International
18.	Dr. Uday Narayan Maiti	8th International Conference on Nanoscience and Nanotechnology (ICONN 25)	SRM University, Chennai	24/03/2025	International
19.	Dr. Uday Narayan Maiti	International Conference on Smart Materials for Sustainable Technology (SMST 2024)	INST Mohali, Panjab	24/10/2024	International
20.	Dr. Uday Narayan Maiti	7th Annual Conference on Quantum Condensed Matter (QMAT 24)	IIT Guwahati, Guwahati	20/12/2024	National

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Sl. No.	**Name of Faculty**	**Name of Lecture**	**Name of Inst./Org.**	**Place**	**Date**
1.	Prof. Dipankar Bandyopadhyay	Self-Organization of Micro/Nano Plastics	FINS IIT Guwahati	Guwahati, Assam, India	October 2024
2.	Prof. Dipankar Bandyopadhyay	Genesis of a Dream: Health Care Technologies for a Billion,	CIHSR Nagaland,	Nagaland, india	April 2024
3.	Prof. Dipankar Bandyopadhyay	Self-Organization of Micro/Nano Plastics	Hydrobio-IRN-CNRS 2024	-	October 2024
4.	Prof. Dipankar Bandyopadhyay	Self-Organization of Triphasic Flows into Metastable Fluid Patterns	ICEM 2024, IIT Madras	IIT Madras, India	October 2024
5.	Prof. Dipankar Bandyopadhyay	Self-organization at the Mesoscale.	Indo-German Workshop	-	February 2024

6.	Prof. Dipankar Bandyopadhyay	Art of Flu-Mech @ Mesoscale,	Karpagam Academy of Higher Education, Coimbatore,	Coimbatore, India	July 2024
7.	Dr. Akshai Kumar A S	Role of Radical and Organometallic Pathways in Pincer-Metal Catalysis for Generation of Hydrogen, Fuel & Specialty Chemicals	American Chemical Society National Meeting Global Virtual Symposium, Fall 2024	Virtual	August 20, 2024.
8.	Dr. Akshai Kumar A S	Pincer-Metal Catalysis for Generation of Hydrogen, Fuel & Specialty Chemicals	National Conference on 'Materials Chemistry & Catalysis' MCC-2025	Tezpur University	March 7-8, 2025
9.	Dr. Akshai Kumar A S	Pincer-Metal Catalysis for Generation of Hydrogen, Fuel & Specialty Chemicals	DST-PURSE supported 24th National Symposium on Catalysis (CATSYMP-24) "Catalysis for Sustainable Chemicals, Materials & Energy'' (CSCME-2025)	Thapar Institute of Engineering And Technology (TIET), Patiala,	February 23 – 26, 2025
10.	Dr. Akshai Kumar A S	Pincer-Metal Catalysis for Generation of Hydrogen, Fuel & Specialty Chemicals	MMM-4 2025	IIT Bombay	February 9 – 12, 2025
11.	Dr. Akshai Kumar A S	Pincer-Metal Catalyzed C-H Activation Reactions: Synthesis of Hydrogen, Fuels and Specialty/Value-Added Chemicals	30th International Conference on organometallic chemistry	Jaypee Palace, Agra	14 - 18 July, 2024
12.	Dr. Akshai Kumar A S	Teaching Old Reagents New Reactions: Base Metal Catalysis for Generation of Hydrogen, Fuel & Specialty Chemicals"	International Conference on Environmental Sustainability	St. Aloysius	April 5-6, 2024
13.	Dr. Akshai Kumar A S	Base Metal Catalysis for Generation of Hydrogen, Fuel & Specialty Chemicals" in on.	-	St. Aloysius)	April 5, 2024
14.	Dr. Akshai Kumar A S	Base Metal Catalysis for Generation of Hydrogen, Fuel & Specialty Chemicals	-	Reva University, Bangalore	April 3, 2024
15.	Dr. Akshai Kumar A S	Pincer-Metal Catalysis for Generation of Hydrogen, Fuel & Specialty Chemicals" at,	-	IIT Kanpur	January 20, 2025
16.	Dr. Akshai Kumar A S	Role of Radical and Organometallic Pathways in Pincer-Metal Catalysis for Generation of Hydrogen, Fuel & Specialty Chemicals" during,	CACEE 2024	TIFR Bombay	December 16 – 21, 2024
17.	Dr. Akshai Kumar A S	C-H Activation: A Key Step in the Pincer-Metal Catalysis for Generation of Hydrogen, Fuels and Specialty Chemicals	ISCHA 2024	IIT Bombay	December 6 – 9, 2024
18.	Prof. Biman B. Mandal	Bioengineered Human Tissues & Organs: The way forward in healthcare	16th National Conference of the Society for Tissue Engineering and Regenerative Medicine (India) and 34th National Conference of the Society for Biomaterials and Artificial Organs (India)	Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvanant hapuram, Kerala, India	December 12-14, 2024

19.	Prof. Biman B. Mandal	3D Printed Human Organs & Tissues: The way forward in healthcare	L. V. Prasad Eye Institute, Hyderabad, Telangana, India.	Hyderabad, Telangana, India	09/01/2025-11/01/2025
20.	Prof. Siddhartha Sankar Ghosh	Theranostics: The Offspring of Therapeutics and Diagnostics	11th Annual Scientific Conference; ACCLMPCON 2025	Dichang Resort, Guwahati, Assam	11/01/2025
21.	Prof. Siddhartha Sankar Ghosh	Two Decades Advancing Nanotheranostics: From Laboratory to Clinical Applications	Indo-Japan Symposium on Nanotheranostics (InJaNa 2024)	IIT Roorkee	23/04/2025
22.	Dr. Uttam Manna	Systematic Modulation of Liquid Wettability and Adhesion	Indian Institute of Technology Madras (online)	Chennai, India	15/06/24
23.	Dr. Uttam Manna	**Facile Chemical Approaches to Derive Functional Interfaces**	**Karlsruhe Institute of Technology (in person)**	Karlsruhe, Germany	08/07/24

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks
1	Prof. Nathaniel Szymczak	Professor of Chemistry University of Michigan *Ann Arbor, MI 48109*	Moving Beyond the Metal: Assisted Small Molecule Activation	11/07/2024	OK
2	Prof. Alan S Goldman	Distinguished Professor of Chemistry Rutgers - The State University of New Jersey Department of Chemistry and Chemical Biology 123 Bevier Road, Piscataway, NJ 08854-8087	Reduction of N_2 to Ammonia Catalyzed by Transition Metal Complexes. Design of a New Paradigm Based on Fundamental Considerations	19/07/2024	OK
3	Prof. B.V.R. Chowdari	Senior Executive Director (Strategic Indian Initiatives), Office of the Provost Adjunct Professor, Materials Science and Engineering, National University of Singapore	Cleanroom visit	August 21, 2024	OK

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. Dipankar Bandyopadhyay, Prof. Akshai Kumar A S, Prof. Parameswar K Iyer, Prof. D Pamu and Prof. Arun Tej M	INUP USERS Meet	MeitY	August 10, 2024	National	60 (IITG)
1.	Prof. Siddhartha S. Ghosh, Prof. Dipankar	Frontiers in Nano-Sciences 2024 (FINS 2024)	MeitY	November 1-2, 2024	National	150

	Bandyopadhyay, Prof. Parameswar K Iyer (Chairpeson) Dr. Akshai Kumar & Dr. Tanmay Dutta (Convener)					
2.	Prof. Parameswar K Iyer (Chairman)	International Conference on Frontier Areas of Science and Technology 2024 (ICFAST 2024)	IJAA	Sep 6 & 7, 2024	International	150
3.	Prof. Parameswar K Iyer , Dr. Akshai Kumar (Convener)	India-Japan Workshop on Biomolecular Electronics and Organic Nanotechnology for Environment Preservation (IJWBME 2023)"	DST	**November 19 -21, 2024**	International	60
4.	Prof. Dipankar Bandyopadhyay, Prof. Akshai Kumar A S	Nano Road Show 2025	MeitY	March 27, 2025	National	50 (IITG)
5.	Prof. Dipankar Bandyopadhyay	ICMR Training Program 2025	ICMR	March 24–April 11, 2025	National	34
6.	Dr. Arun Tej Mallajosyula	Offline Familiarization Workshop on Nano- and Bio-electronics: Fabrication and Characterization	MeitY	April 8-10, 2024	National	16
7.	Dr. Arun Tej Mallajosyula	INUP-i2i Hands-on Training on Hands-on Training Workshops on Fabrication and Characterization of Nano and Memory Devices-I	MeitY	June11-20, 2024	National	150

AWARDS AND HONOURS

- Prof. Dipankar Bandyopadhyay: DHR-ICMR Health Research Excellence, Best Extramural Innovation, 2024, DHR-ICMR
- Prof. Dipankar Bandyopadhyay: TIECon Top 50 Startup winner 2024, TIECon
- Dr. Akshai Kumar Alape Seetharam: Aloysian Alumnus of the month - April 2024, Aloysian
- Dr. Akshai Kumar Alape Seetharam: Research activities highlighted in CSI Communication, December 2024 Catalysis Society of India
- Dr. Akshai Kumar Alape Seetharam: PAC member, Prime Minister's Early Career Research Grant January, Anusandhan National Research Foundation, New Delhi
- Dr. Akshai Kumar Alape Seetharam: Selected as Member of Indian National Young Academy of Sciences (INYAS) , Indian National Science Academy
- Dr. Uttam Manna: International Excellent Fellow, Karlsruhe Institute of Technology

STUDENTS' ACHIEVEMENTS

- Mr. Souradeep Dey: Sun Pharma Science Foundation Science Scholar Fellowship - 2024 Sun Pharma Science Foundation
- Ms. Chevella Maheshwari : Best Poster Award, India-Japan Workshop on Biomolecular Electronics and Organic Nanotechnology for Environment Preservation (IJWBME 2024), Centre for Nanotechnology, IIT Guwahati.
- Ms. Sujisha S. Nambiar: Best Poster Award, India nanoelectronics users' program (INUP) on nano and bioelectronics 2024, IIT Guwahati
- Mr. Thirukumaran Kandasamy: Certificate of Merit, Indo Japan, Symposium on Nanotheranostics (InJaNa 2024)
- Ms. Sujisha S. Nambiar: Certificate of Merit, Indo Japan, Symposium on Nanotheranostics (InJaNa 2024)
- Ms Dheepika Venkatesh: Certificate of Merit, Indo Japan, Symposium on Nanotheranostics (InJaNa 2024)
- Ms Arisha Arora: Certificate of Achievement, Research and Industrial Conclave, IIT Guwahati
- Dr. Manideepa Dhar: Best Thesis Award, Indian Institute of Technology Guwahati
- Ms. Sonam Rani: Best Thesis Award, Indian Institute of Technology Guwahati
- Ms. Jaysri Das: Best Poster Award,Wiley

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
1.	S. Akshai Kumar A.	Ph.D. (IISc Bangalore)	Head, Centre for Nanotechnology, Associate Professor Dept. of Chemistry & Centre for Nanotechnology Email: akshaikumar@iitg.ac.in Phone: +91 361 2583479	Organometallic Chemistry, Inorganic Chemistry, Organofluorine Chemistry, Catalysis (Homogeneous and Heterogeneous), C-H and C-F activation
2.	Bandyopadhyay, Dipankar	Ph. D (IIT Kanpur)	Head, Centre for Nanotechnology Professor Department of Chemical Engineering E-mail: dipban@iitg.ac.in Phone:+91 361.2582254	Colloid and Interfacial Phenomena, Computational Fluid Dynamics, Micro and Nano fluidics, Complex Flow and Fluids
3.	Bose, Biplab	Ph. D (AIIMS)	Associate Professor Department of Biosciences and Bioengineering E-mail: biplabbose@iitg.ac.in Phone:+91 361 2582216	Molecular Networks, Recombinant Proteins
4.	Bag, Ankush	Ph. D (IIT Kharagpur)	Assistant Professor Department of Electronics and Communication Engineering Email: ankushbag@iitg.ac.in Phone:+91 361 2583282	Growth, fabrication and modelling of gallium oxide based power devices such as Schottky barrier diodes, MOSFETs
5.	Chattopadhyay, Arun	PhD (Columbia University)	Professor Department of Chemistry Email: arun@iitg.ac.in Phone: +91 361 2582304	Nanoscale Science & Technology
6.	Dasmahapatra Ashok Kumar	PhD (Indian Institute of Technology Bombay)	Associate Professor Dept. of Chemical Engg & Centre for Nanotechnology E-mail: akdm@iitg.ac.in Phone: +91 361 258 2273 (O)	Complex Fluids, Phase transition in polymeric system, Self assembly in block copolymer, Structure Property relation, Biophysics, Graphene based nano materials, Solar cells.
7.	Dutta, Tanmay	Ph.D (National University of Singapore)	Assistant Professor Department of Electronics and Communication Engineering Email: tanmay.dutta@iitg.ac.in Phone:+91 361 2583285	Non-volatile memory, Spintronics, MRAM (SOT,STT), Race-track memory, HDD (Hard disk drives), SSD (Solid state drives), Quantum computing, Neuromorphic memory
8.	Ghosh, Siddhartha Sankar	PhD (IICB, Kolkata)	Professor Department of Biosciences and Bioengineering E-mail: sghosh@iitg.ac.in Phone: +91 361 2583051	Gene Therapy, Nanobiotechnology
9.	Giri, Pravat Kumar	PhD (IIT Kanpur)	Professor Department of Physics Email: giri@iitg.ac.in Phone: +91 361 2582703	Condensed Matter Physics; Semiconductor nanostructures, Ion-solid interactions, Optoelectronic materials & devices, Nanotechnology
10.	Iyer, Parameswar Krishnan	Ph.D. (CSMCRI, Bhavnagar)	Professor Department of Chemistry E-mail: pki@iitg.ac.in Phone: +91 361 258 2314	Organic and Polymer synthesis, Bio & Chemosensors, Optoelectronic devices.

11.	Maiti, Uday Narayan	Jadavpur University	Associate Professor	Energy storage, green hydrogen generation, EMI shielding
12.	Mandal, Tapas K	Ph. D (IIT Kharagpur)	Professor Department of Chemical Engineering E-mail: tapasche@iitg.ernet.in Phone: +91 361.2582271 Fax: +91 361 2582291	Multiphase flow & Measurement in multiphase flow, Bio-diesel.
13.	Mandal, Biman B	IIT Kharagpur	Professor	Regenerative Medicine, Biomaterials, Tissue Engineering, Stem Cells.
14.	Manna, Uttam	Indian Institute of Science, Bangalore	Associate Professor	Bio-inspired polymeric materials
15.	Nemade, Harshal B.	PhD (IIT Bombay)	Professor Department of Electronics and Communication Engineering E-mail: harshal@iitg.ac.in Phone: Extn. 2204 (+91 361 2582509)	Electronic and Ultrasonic instrumentation, Electronic product design, EMI/EMC issues, Acoustic sensors, SAW devices, MEMS, NEMS
16.	Palathinkal, Roy Paily	Ph. D. (IIT Madras)	Professor Department of Electronics and Communication Engineering Email: roypaily@iitg.ac.in Phone:+91 361 2582512	VLSI and MEMS
17.	Pattader, Partho Sarathi Gooh	PhD (Lehigh University, USA)	Assistant Professor Dept. of Chemical Engg. & Centre for Nanotechnology E-mail: psgp@iitg.ac.in Phone: +91 361 2583531	Stochastic dynamics, Colloid and Interface science, Tribology, Soft matter
18.	Pamu, D.	Ph. D. (Univ. of Hyderabad)	Associate Professor Dept.of Physics & Centre for Nanotechnology, Email: pamu@iitg.ac.in Tel: 0361-2582721	Condensed Matter Physics; High-k and low loss materials, FerroelectricsCeramics, Oxide thin films Nanomaterials
19.	Paul, Anumita	Ph.D. (Columbia University)	Professor Department of Chemistry E-mail: anumita@iitg.ac.in Phone: +91 361 258 2308	Surface Science, Catalysis, Thin Films.
20.	Peela, Nageswara Rao	PhD (Indian Institute of Technology, Kanpur)	Associate Professor Dept. of Chemical & Centre for Nanotechnology E-mail: peelanr@iitg.ac.in Phone: +91 361 2583526	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
21.	Sahoo, Lingaraj	Ph.D (MDU, Rohtak)	Professor Department of Biosciences and Bioengineering E-mail: ls@iitg.ac.in Phone: +91(0361) 2582204	Genetic engineering and functional genomics of plants
22.	Mallajosyula, Arun Tej	Ph.D. (IIT Kanpur, India)	Assistant Professor Dept. of Electronics and Electrical Engineering Email : aruntej@iitg.ac.in Phone : +91-361-258-3469	*Photovoltaics, Organic Electronics, Flexible Electronics*

Centre for Linguistic Science and Technology

YEAR OF ESTABLISHMENT OF THE CENTRE: 2014

ACADEMIC PROGRAMMES OFFERED: PhD

LABORATORY FACILITIES:

No. of Laboratories with brief introduction:

01. **Research Scholar Bay:** It houses all the research scholars of the Centre, with individual workspaces.
02. **Cubicles:** Newly constructed cubicles which can accommodate 09 nos. of Research Scholars/ Project Staff.
03. **High Performance Computing lab:** This lab hosts high CPU and GPU servers to support research scholars of the Centre for their computing intensive experiments
04. **Project Lab:** It houses sponsored projects and specialized equipment of the Centre.
05. **Server Room:** It houses the GPU Work Station, NAS and LLMs and other servers.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED:

Sl No.	Item	Qty	Price
1	**NAS with HDD (7 x 10TB HDD)** **Make: QNAP, Model: TS 832PX-4G**	**01 No.**	**2, 49,983.00**
2	**Software** **E Prime Extension for Tobii Pro 3.2**	**01 No.**	**2,73,999.00**
3	**Buyback of Kyocera Taskalfa 3010i to Toshiba E-Studio 4528A**	**01 No.**	**2,48,650.00**
4	**3TR Industrial Precision AC** **Make: Vertiv, Model: Liebert SRC 11ET**	**01 No.**	**6,52,800.00**
5	**GPU Work Station** **Make:Hp, Model:Z8G5**	**01 No.**	**17,49,350.00**
6	**GPU Cloud Service** **Make:Nvidia, Model: DGX A100 GPU**	**01 No.**	**6,11,712.00**

MAJOR AREAS OF RESEARCH AND DEVELOPMENT:

- **Spoken Language Technology Development:**
  - **Automatic Speech Recognition, Text to Speech, Acoustic analysis, Human centered design of Interactive systems**
- **Text Processing and Analytics:**
  - **Natural Language Processing, Sentiment Analysis, Machine Translation/Transliteration, Event Detection**
- **Brain, Cognition and Language:**
  - **Cognitive Linguistics, Evoke Related Potential, Eye Tracking**
- **Image and Video Processing :**
  - **Image Processing, Video Captioning**
- **Computational Phonology**
- **Natural User Interface**
  - **UI, XR/VR, Language Structure and Environment**

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT (1 APRIL 2024– 31 MARCH 2025):

A. Sponsor Projects

a. AI Assisted Legal Translation of Judgements from English to Assamese, Funded by Gauhati High Court, Amount: Rs. 3.07Cr
b. Centre of Indian Language Data (COIL-D), Funded by Meity, Amount Rs. 3.5Cr

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks
01	Prof. Andy Khong	NTU Singapore	Meeting and Talk	2/3/2025	
02	**Prof. Timorthy A Gonsalves**	**Former Director, IIT Mandi Retd. Professor, IIT Madras**	**Meeting and Talk**	**7/10/2024**	**Delivered an institute level talk**
03	**Prof. Juraj Simko**	**University of Heisinki**	**Meeting and Talk**	**2/1/2025**	
04	**Prof. Thippur Sreenivas**	**IISc Banglore**	**Semester long Lecture**	**Jan 2024 till May 2025**	**Taught a semester long course**

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
01	Prof. Priyankoo Sarmah Prof. S Ranbir Singh Prof. Shakuntala Mahanta Prof. Bidisha Som	Himalayan Languages Symposium 2024	Various Agencies	June 12-14 2024	International	150

STUDENTS' ACHIEVEMENTS

Ms. Joyshree Chakraborty: Microsoft Travel Grant, Microsoft

Ms. Sneha Ray Barman: IndSCA Travel Grant, Indian Speech Communication Association

Mr. Dhrubajyoti Pathak: International travel Scholarship, SERB

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/ Org PhD degree received from	Designation	Areas of Interest
1	Prof. Sukumar Nandi	IIT Kharagpur	Professor	Networks (Specially: QoS, Wireless Networks), Computer and Network Security, VLSI, Computational Intelligence
2	Prof. Bidisha Som	JNU New Delhi	Professor	Cognitive mechanisms of language structure and use.
3	Prof. Manas Kamal Bhuyan	IIT Guwahati	Professor	Image & Video Processing, Computer Vision, Machine Learning & Human Computer Interactions (HCI),Virtual Reality & Augmented Reality, Biomedical Signal Processing.

4	Dr. Prithwijit Guha	IIT Kharagpur	Assoc. Professor	Computer Vision, Pattern Recognition, Signal Processing, Robotics.
5	Prof. Sanasan Ranbir Singh	IIT Madras	Professor	Open Source Intelligence (Social Media/Social Network Analysis), Information Retrieval, NLP
6	Dr. Samit Bhattacharya	IIT Kharagpur	Assoc. Professor	Human Computer Interaction, User Modeling, Model Based Evaluation of Interactive Systems, Rehabilitation Engineering
7	Prof. Shakuntala Mahanta	Utrecht University, Netherlands	Professor	Theoretical phonology, acoustic phonetics, tone and intonation, perception
8	Prof. D Udaya Kumar	IIT Bombay	Professor	Visual Communication, Graphic Design, Typography, Information Graphics, Architecture, Design Education and Research
9	Prof. Priyankoo Sarmah	University of Florida	Professor	Phonetics, Tones, Computational Linguistics
10	Prof. Rohit Sinha	IIT Kanpur	Professor	Speech and Audio Processing, Speech Recognition, Signal Processing
11	Prof. Samarendra Dandapat	IIT Kanpur	Professor	Signal Processing, Machine Learning, Cardiovascular Signal Processing, Speech Processing (Stressed Speech), Biomedical Data Science, AI in Healthcare, Retinal Image Processing (Fundus Image).
12	Dr. Suresh Sundaram	IISc Bangalore	Assoc. Professor	Pattern recognition, Image/ Video Processing and Computer Vision.
13	Dr. Abhishek Shrivastava	IIT Bombay	Asstt. Professor	Interaction Design, Speech User Interfaces and Multimodal Interface Design, Design for Development, New Media, Graphic Design and Cartooning.
14	Prof. S M Hazarika	University of Leeds, England	Professor	Cognitive Systems | Knowledge Representation and Reasoning | Artificial Intelligence | Biomimetic Robotics | Machine Learning | Robotic Neuro rehabilitation |
15	Dr. Navin Gupta	University of Essex, UK	Asstt Professor	Imaging Genetics, Biomedical Signal/Image Processing, Multimodal Analysis, Computer Aided Diagnosis, Biomedical Instrumentation
16	Dr. Neeraj Kumar Sarmah	IISc Bangalore	Asstt. Professor	Bio-acoustics, health-acoustics, speech & audio; Brain-informed signal processing (behavioral and EEG data capture and analysis); AI for perception and cognition; Non-stationary time-series signal modelling (sampling and time-frequency analysis).
17	Prof. Ashish Anand	Nanyang Technological University, Singapore	Professor	NLP, Clinical Text Mining, Machine Learning and its application in computational biology, Deep Learning

Computer & Communication Centre

The Computer and Communication Centre (CCC) of IIT Guwahati is the central computing resource pool of the Institute. It is responsible for:

- Providing Email service and Internet connectivity to the Institute. Currently, there are around 11,000 active user accounts being maintained.
- Providing Office Automation services.
- Catering to the general-purpose and high-performance computing needs of the users.
- Maintenance of the campus network.
- Hosting and maintenance of Institute's web pages.

The CCC Computer Laboratory is equipped with state-of-the-art PCs to meet the diverse computing needs of the IIT Guwahati community. The lab remains operational for 16 hours daily and is accessible to all authorized users. During mid-semester and end-semester examinations, it operates round-the-clock. The laboratory also hosts practical sessions for common courses and extends its facilities to students from other institutions as needed. CCC resources are regularly upgraded to stay in line with the latest advancements in Information Technology.

MAJOR FACILITIES AND EQUIPMENT

Networking and Telecommunication Infrastructure:

The Computer and Communication Centre is responsible for establishing and maintaining the network infrastructure across the IIT Guwahati campus, including both wired and wireless connectivity. The IIT Guwahati campus network comprises over 8000 active nodes, supported by more then 500 switches and about 960 Wi-Fi access points, delivering high-speed connectivity across the entire 704 acre campus. Efforts are underway to make the entire campus fully Wi-Fi enabled.

The network facility has been continuously extended to newly constructed academic buildings. In the current year, CCC extended the network connectivity to the School of Agro and Rural Technology and the School of Business. To meet the growing network demands, CCC procured and deployed 60 units of L2 switches and 15 units of L3 units.

In addition to network services, CCC manages the official Institute website, Intranet portal, and also maintains the Institute's official social media platforms, ensuring timely dissemination of information and engagement with stakeholders.

The Centre is also responsible for managing and maintaining the telephone infrastructure of the entire campus, thereby supporting the Institute's administrative and academic communication needs.

Office Automation Services:

The Computer and Communication Centre (CCC) has been actively engaged in the development of several in-house software applications to support the Institute's office automation requirements. The primary

objective is to streamline administrative and academic processes across departments, centres, schools, and sections, thereby enhancing institutional efficiency and facilitating a transition towards a fully digital campus environment. All applications have been developed entirely in-house, and they are updated to tailor to the Institute's evolving functional needs. These applications span a wide range of domains, including administrative system, recruitment, payroll, finance, academic administration, and student services. Notable applications developed and maintained by the Centre include:

- *Administrative Systems:* Includes recruitment, Staff and Faculty Administration, Payroll System, Leave Management Systems, Budget and Purchase System, E-Payment, etc.

- *Student Services:* Includes student related automation services like scholarship, project allotment, Internship application system, placement/internship/training and skilling/registration fee payment etc.

- *Institutional Portals and Tools:* Includes centralized authentication system, room booking system, file tracking system, guest house/auditorium/hall booking, etc.

- *Community and Event Portals:* Includes voluntary donation, IIT Guwahati club contribution, alumni registration, faculty forum contribution, etc.

- *Utility and Support Tools:* Includes electricity billing system, telephone bill reimbursement system, etc.

In the current year, the Centre developed several new applications, including:

- Security Section Automation
- AER (Alumni and External Relations) Portal

Additionally, numerous enhancements were implemented across existing applications, particularly in the modules for Payroll, E-Payment, Staff/Faculty Administration, Online Leave, Recruitment, APAR, and Student Affairs Automation.

A significant effort was also made this year to unify the look and feel of all applications by migrating them to a common ERP theme, ensuring a consistent user experience and improved maintainability.

Email Service:

IIT Guwahati has been using Microsoft Office 365 platform for providing email services to the entire community including alumni. The Institute procures Office 365 licenses, which include not only email facility but also OneDrive storage, Microsoft Teams, and a suite of Microsoft productivity applications. In addition email services for project staff engaged in various sponsored projects are provided through the G-Suite platform. Furthermore, to support the Online B.Sc. Program offered by the Mehta Family School of Data Science and Artificial Intelligence (MFSDSAI), email and associated Office 365 services have been extended under a new sub-domain.

General-Purpose Computing:

Since its inception, the Computer and Communication Centre (CCC) has been responsible for meeting the general-purpose computing requirements of the institute's user community.

The Centre provides the latest desktops and laptops to faculty members and desktops to all administrative staff of the institute. Additionally, it manages a student computing lab comprising more than 200 desktops to support the academic and research needs of the student community.

To ensure that the latest computing facilities are provided to the community, old systems are regularly upgraded. During the financial year 2024–25, a total of 450 Intel Core i5 (13th generation) desktops were procured through a buyback arrangement and are currently operational.

The HPC Facility:

The Computer and Communication Centre provides high-performance computing facilities to all faculties, students, and staff of IIT Guwahati, as well as researchers of various Academic and Research institutes across India. Currently, CCC has two high performance computing clusters. The PARAM-Kamrupa and PARAM-Ishan. Under the National Supercomputing Mission (NSM), the compute services of these HPCs are being extended to research and academic institutes in the region, including the North East Space Application Centre (NESAC) for weather forecasting studies, Centre for Development of Advanced Computing (CDAC), Dibrugarh University, Institute of Advanced Study in Science and Technology (IASST), National Institute of Technology (NIT) Silchar, and Tezpur University. The facility is also extended to several academic and research institutes across the country.

PARAM-Kamrupa, a state-of-the-art supercomputing system is a supercomputing facility established under Phase-2 of build approach of National Supercomputing Mission with a peak computing power of 838 TF with 1 PB storage. This facility has been set up as a joint project between IIT Guwahati and CDAC and was inaugurated by the Honourable President of India on 13th October 2022. This cluster has 146 CPU computing nodes and 10 GPU nodes with two GPU cards per node. Currently, more than 200 users are active in the system and the total cluster utilization is more than 85%.

PARAM-Ishan is an earlier-generation supercomputing facility with a peak performance of 250 TF. The system comprises of 126 Compute Nodes without Accelerator, 4 high-memory CPU-only nodes, 16 GPU-enabled compute nodes and 16 compute nodes with Intel Xeon Phi accelerators. The system has around 100 users and the total cluster utilization is more than 85%.

CONSULTANCY AND OTHER COMMUNITY SERVICES

The Computer Centre has been providing consultancy services to state government departments and nearby educational institutes. In the current year, the centre is providing consultancy for technical auditing of the integrated traffic management system under Guwahati Smart City Limited, a government company for implementing the smart city mission, Accounts Management System for Brahmaputra Board, Online Recruitment Portal for Brahmaputra Board, Department of Water Resources and, Bid Evaluation of the Procurement, Implementation, and Maintenance of a Hospital Management Information System for Assam Health Infrastructure Development & Management Society (AHIDMS), etc.

ONGOING SPONSORED PROGRAMMES

Nation-wide Deployment of Threat Capturing Sensors for NCCC:

IIT Guwahati is a participating organization in the National Cyber Coordination Centre (NCCC) project, implemented by Ministry of Electronics and Information Technology (MeitY) and Indian Computer emergency Response Team (CERT-In). The project aims to deploy a nationwide network of honeypot sensors to monitor and analyze emerging cyber threats. As part of this initiative, sensor servers have been installed in CCC using IIT Guwahati's public IP. Participation in the project provides access to the Centralized Honey Net Portal and a repository of India-specific cyber-attack data, strengthening the institute's cybersecurity capabilities.

Implementation of Phase-II of National Cyber Coordination Centre (NCCC) project of CERT-In:

IIT Guwahati has been selected for Phase-II of the National Cyber Coordination Centre (NCCC) project in year 2022, which focuses on collecting metadata such as traffic flows, logs, DNS, and BGP feeds to enable near real-time threat assessment and situational awareness. The required devices have been successfully implemented at IIT Guwahati, and regular alerts and updates are being received from CERT-In.

Hosting of DNS L Root and AIORI Anycast Instance in IITG:

IIT Guwahati will be hosting an L Root server anycast instance, one of the 13 root servers forming the backbone of the global Domain Name System (DNS). Using anycast routing, this deployment will enhance the global DNS infrastructure by serving top-level domain queries more efficiently.

The initiative is part of the Advanced Internet Operations Research in India (AIORI) program, supported by NIXI and implemented by the India Internet Foundation (IIFON). Alongside the L Root server, an AIORI Anycast instance is also hosted at IIT Guwahati. Hosting this infrastructure will strengthen the core Internet ecosystem, enhance India's presence in the global Internet framework, boost IIT Guwahati's research capabilities in networking, and foster technical collaboration and knowledge sharing.

FACULTY MEMBER :

Prof. Ashok Singh Sairam
Department of Mathematics

Central Instruments Facility

YEAR OF ESTABLISHMENT OF THE CENTRE: 2004

ACADEMIC PROGRAMS OFFERED: CIF hosts various sophisticated instruments which cater to the need of teaching and research of institute departments/centers/schools in many areas of modern scienceand technology.

LABORATORY FACILITIES:

No. of Laboratories with brief introduction:

Sr. No.	Lab Number	Laboratory Name	**Approx. Floor space (m^2)**	**Availability of facilities like board, LCD, PC/Laptop, AC, internet**
	GROUND FLOOR			
01	CIF 001A	X-ray Diffraction (Single and Powder) (including Chiller and UPS)	234	Equipment, Furniture, PC, internet, ACs.
02	CIF 001B	Large Molecular X-ray Diffraction	104	-do-
03	CIF 002	Sigma and Sigma 300 FESEM (including UPS and Operator office)	234	-do-
04	CIF 003A	JEOL FETEM (including UPS and Chiller)	104	-do-
05	CIF 003B	FESEM (Gemini 300)	234	-do-
06	CIF 003C	AFM (Oxford)		-do-
07	CIF 004	ESR (JEOL) (including Chiller and UPS)	192	-do-
08	CIF005A	VSM (Lakeshore) (including Chiller and UPS)	192	-do-
09	CIF005B	ITC (GE)		
10	CIF006A	600 MHz FTNMR (Bruker) (including Compressor and UPS)	130	-do-
11	CIF006B	250 KN UTM (BISS)	32	-do-
12	CIF 007	MALDI-TOF (Bruker) / GPC (Agilent)/ XPS (Physical Electronics)	234	-do-
	FIRST FLOOR			
13	CIF103A	Micro PIV (Dantec)	234	-do-
14	CIF103B	TGA/DSC (Netzsch) (including UPS and Chiller)		-do-
15	CIF105A	ICPMS and HRMS (Agilent) (including UPS and Cylinders)	192	
16	CIF105B	Laser Micro RAMAN (Horiba)		-do-
17	CIF106A	Spectroscopic Ellipsometer, (SEMILAB)	192	-do-
18	CIF106B	TRPL (Edinburg)		-do-
19	CIF107A	Sample Preparation Room	192	-do-
20	CIF107B	Impedance and Material Analyzer (Novocontrol)		-do-
21	CIF108	BET Analyzer / CHNOS Analyzer	130	-do-
22	CIF109	Millipore water purification system and chemical Store	32	-

SOPHISTICATED INSTRUMENTS HOUSED AT THE CENTRAL INSTRUMENTS FACILITY(CIF)

No. of instruments: 30

Existing Facilities (Major Equipment):

1. Electron Spin Resonance (ESR) Spectrometer, Make: JEOL, Model: JES-FA200
2. Field Emission Scanning Electron Microscope (FESEM) with OXFORD EDS, Make:Zeiss, Model: Sigma
3. Laser Micro Raman System, Make: Horiba Jobin Yvon, Model: LabRam HR
4. High-Temperature Differential Scanning Calorimetry (DSC) / Thermo Gravimetric (TG)System, Make: Netzsch Model: STA449F3A00
5. Transmission Electron Microscope (TEM), Make: JEOL, Model: JEM 2100
6. Vibrating Sample Magnetometer (VSM), Make: Lakeshore, Model:7400 series
7. Picosecond Time-resolved and Steady State Luminescence Spectrometer, Make: EdinburgInstruments, Model: Lifespec II & FSP 920.
8. Desktop Helium Liquefier, Make: Cryomech, Model: LHEP18
9. Spectroscopic Ellipsometer, Make: SEMILAB, Model: GES5E
10. Single Crystal X-ray Diffractometer, Make: Agilent, Model: Single source supernova E
11. Surface Area and Pore Size Analyzer and High Pressure Surface Analyzer, Make:Quantachrome Instruments, Model: Autosorb, IQ MP
12. Impedance and Material Analyzer (IMA), Make: Novocontrol, Model: BDS 2300
13. 600 MHz Nuclear Magnetic Resonance (NMR) Spectrometer, Make: Bruker, Model:AVANCE III HD
14. 250 kN Servo Hydraulic Universal Testing Machine, Make: BISS, Model: MEDIAN 250
15. Matrix Assisted Laser Desorption/Ionization – Time Of Flight, Make: BRUKER Model:AUTOFLEX SPEED
16. Field Emission Transmission Electron Microscope (FETEM), Make: JEOL, Model:2100F(HR)
17. Isothermal Titration Calorimeter, Make: GE Health Care, Model: iTC 200 Micro-calorimeter
18. Field Emission Scanning Electron Microscope (FESEM) with OXFORD windowless EDS,Make: Zeiss, Model: Gemini 300
19. Micro Particle Image Velocimetry System, Make: Dantec Model : 9080M0571
20. Field Emission Scanning Electron Microscope (FESEM) with Element EDS Detector,Make: Zeiss, Model: Sigma 300
21. Large Molecule Single Crystal X-ray Diffractometer, Make: Rigaku Model: Micromax 007HF R-axis IV^{++} Oxford
22. High-Temperature Gel Permeation Chromatography (HT-GPC), Make: Agilent, Model:G7820A
23. Atomic Force Microscope, Make: Oxford Instruments, Model: Cypher S
24. 9 kW Powder X-Ray Diffractometer, Make: Rigaku Technologies, JAPAN, Model:Smartlab
25. 5 kN Electromechanical Universal Testing Machine, Make: ZwickRoell, Model: Z005TNProline
26. Photovoltaic/ Solar Cell/ Photo-Electrochemical Analyzer/Workstation, Make: CH Instruments Inc., USA, Model: CHI 604E + Amp i-t
27. Automated ultra-high vacuum (UHV) X-ray photoelectron spectroscopy, Make: M/sPhysical Electronics, USA; Model: PHI 5000 versa probe III
28. Inductively Coupled Plasma Mass Spectrometer (ICPMS), Make: Agilent, Model: 7850 ICP-MS.
29. Ultra High Performance Liquid Chromatography-Quadrupole Time of Flight-High Resolution Mass Spectrophotometer (UHPLC-QTOF-HRMS)

Make: Agilent Model: 654

30. CHNSO Analyzer,
Make Elementa Model: VARIO MACRO CUBE.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED (1 APRIL 2024 - 31 MARCH 2025):

1. Field Emission Transmission Electron Microscope (FETEM), Make: JEOL, Model:JEM F200(HR) (ORDER PLACED, CONSIGNMENT Yet to receive)

MAJOR EQUIPMENT AND FACILITIES TO BE PROPOSED: (UNDER PROCESS)

- Picosecond Time-resolved and Steady State Luminescence Spectrometer
- High-Temperature Differential Scanning Calorimetry (DSC) / Thermo Gravimetric (TG)
- Field Emission Scanning Electron Microscope

MAJOR AREAS OF RESEARCH AND DEVELOPMENT:

- Instrumentation facility is used by 20 out of 28 Departments, Centres, and Schools of the Institute.
- The facilities of CIF are also used by 48 external institutes from all over India especially

  North-eastern region on a minimal chargeable basis.

Training/Workshop conducted in the reporting year

Sl. No.	Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. participants
01	Dr. Gagan Kumar / Dr. Sidananda Sarma	Advancement and Applications of Analytical Instruments (AAAI) 2024	By Participants & Sponsors are M/s Zeiss & M/s Toshwinwal Brothers Pvt. Ltd.	9th Nov 2024	National	119

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL (1 APRIL 2024– 31 MARCH 2025)

(1) One-day long demonstration of sophisticated Instruments to Professor (01) and students (10) of GIFU University, Japan on 7th March, 2025 during 4th Spring School 2025.

(2) Demonstration of Sophisticated and High-end equipment to M.Sc., B. Tech. and Ph.D. students of IITG have been conducted in a regular basis.

A) Outreach educational program visits to CIF (1 Apr 2024 - 31 Mar 2025):

Following students from different Schools/ Colleges visited CIF, and IITG during the said period.

Sl. No.	Name of the Organization	Date	No. of students + teachers
1.	Local students from North Guwahati (NSS, IITG activities)	07/04/25	30+03
2.	College of Agriculture, Tripura	07/08/24	19 +03
3.	Jagiroad College (B.Sc. Honrs) Morigaon, Assam	31/08/24	40+03
4.	Jawahar Navodaya Vidyalaya (JNV), Shillong region of Classes X and XII, 90 students	10/09/24	90+10
5.	Ramakrishna Mission School, Aalo, Arunachal Pradesh	03/10/24	44+05
6.	SSA Morigaon, Assam	24/12/24	128+178
7.	Samagra Siksha Stae project, SIKIM	12/02/25	55+05
8	Gifu University, Japan(4th Spring School st IITG)	07/03/25	10+01
9.	Pachunga University College, Aizawl	10/03/25	38+02

Students trained for CIF instrument operation

Sl. No.	Department	Existing CIF-trained Operators	New operators trained in the reporting period
1.	Department of Chemical Engineering	22	03
2.	School of Agro and Rural Technology	02	00
3.	Centre for Environment	12	03
4.	Centre for Nanotechnology	05	02
5.	School of Energy Science and engineering	10	01
6.	Department of Civil Engineering	12	02
7.	Department of Bioscience and Bioengineering	19	02
8.	Department of Mechanical Engineering	11	01
9.	Department of Physics	36	02
10.	Department of Chemistry	54	10
Total number of students trained			

Revenue Generated:

A significant number of external samples from various academic and research institutes across the North East and other parts of India were analyzed using the equipment available at the Central Instruments Facility (CIF). During the reporting year 2024–2025, a total of **₹5,41,360.00** was collected as sample analysis charges from these external users.

FACULTY MEMBERS:

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
01.	Dr. Gagan Kumar	Indian Institute of Technology, Delhi	Professor	Terahertz Plasmonics and metamaterials, Guided Wave Devics, Ultrafast Spectroscopy.

Lakshminath Bezbaroa Central Library

Lakshminath Bezbaroa Central Library remains a vital service centre within the Institute. It supports teaching, learning, and research by offering state-of-the-art facilities along with a vast array of print and digital resources spanning sciences, engineering, humanities, social sciences, and more. Housed in a four-story building covering approximately 7,500 square meters, the library provides comfortable seating for about 485 readers. Fully computerized, the facility offers in-house services with Wi-Fi connectivity, ensuring seamless access to the Institute's electronic resources.

During the reported period about 121 visitors from other academic institutions have utilizeded reference and reading facilities of the Library. In addition to that, approximately 1,651 students, teachers, researchers from 21 schools, colleges and universities and more than 882 readers accessed the library services. Also, more than 4.30 lakhs students, faculty and staff members visited 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. During the reporting period, total 57,098 books were transacted by 4,900 resgistered users and more than 2.81 million journal articles were downloaded.

Collection Development

The library has witnessed significant growth in both print and digital formats over the past decade. Key highlights include:

- **Current Collection Statistics (FY 2024-25):**
- **Growth Trends Since 2015-16:**
    - **Printed Books & Bound Journals:** Increased from 1,57,955 to 1,90,966.
    - **E-Books:** Expanded from 1,47,463 to 2,53,508.
    - **Current Print Journals:** Declined from 90 to 13, reflecting a strategic shift towards digital resources.
    - **Online Journals:** Grew steadily to reach 31,747, benefiting from the inclusion of backfiles and consortium-based subscriptions.

Recognizing the critical role of journals in scientific research, the library has prioritized the transition to digital subscriptions. Currently, it subscribes to 10,497 current journals and provides access to an additional 19,096 online journals under One Nation One Subscription Consortium.

In addition to regular academic materials, the library has expanded its collections in regional literature (Assamese and Hindi), literary works related to Sahityarthi Lakshminath Bezbaroa, Braille books, and special collections focusing on Mahatma Gandhi.

Subscriptions and Digital Resources

To offer comprehensive research support, the library has procured renowned abstract and full-text databases, including:

- **International Databases:** Brill Journal Collection, CAS SciFinder Discovery Platform, eHRAF, ISO Standards, Journal Citation Report, MathSciNET, ProQuest Academic Complete – eBook Collection, ProQuest One Business, Royal Society of Chemistry Platinum

Collection, Scopus, Springer Protocols Database, Web of Science-core collection, among others.
- **National Databases:** CMIE ProwessIQ, Economic Outlook, BIS Standards, and EPWRF Time Series.

Moreover, the library has implemented Turnitin for plagiarism detection during the reporting period, ensuring academic integrity. In addition to these resources, library maintains the Institute's Faculty Profile platform through IRINS.

Expenditure :

Over the last ten financial years, there has been a noticeable increase in spending on both books and research journals. The data for last ten financial years are as follows:

Financial Year	Expenditure on Books (Rs. in Lakhs)	Expenditure on Research Journals (Rs. in Lakhs)
2015-16	124.91	685.72
2016-17	75.12	746.20
2017-18	149.99	883.89
2018-19	148.87	1,022.56
2019-20	65.58	1,088.22
2020-21	52.80	1,140.40
2021-22	55.21	1,200.25
2022-23	92.45	1,304.72
2023-24	59.02	1,362.72
2024-25	89.08	507.79

Services and Facilities

The library has continuously enhanced its services and facilities to meet the evolving needs of its users:

- **Digital Repository:**
  - A repository of Ph.D. theses, accessible at https://gyan.iitg.ac.in, now hosts more than 2,800 full-text theses.
  - Cooperation with the Shodhganga portal (INFLIBNET Centre) since 25th July 2022 further enriches accessibility.
- **Discovery Service:**
  - A world-renowned discovery platform, i.e. SUMMON 360+ has been introduced, enabling efficient searches across the library's vast electronic resources.
- **Self-Service Kiosks:**
  - Two RFID-based Book Drop Kiosks and two Self Check-Out Kiosks facilitate self-issue, re-issue and return of books beyond regular hours.
- **Security and User Convenience:**
  - A token-based property counter is available for secure personal belongings.
  - Three lane RFID enabled Security Gate has been installed for proper monitoring to daily footfall and protection of library collections.
- **Remote Access:**
  - In collaboration with the INDIAN Access Management Federation (INFED), the library provides secure remote access to paid online content for users off-campus.

Infrastructure and Developmental Initiatives

To further elevate the user experience and operational efficiency, several key infrastructure improvements have been made:

- **Software Upgrades:**
  - Transition to a web-based library management system enhances browsing and supports instant notifications via email and SMS for all library transactions.
- **Modern Amenities:**
  - Installation of a large-format display monitor to keep users updated on recent developments and facilities.
  - The entire building has been renovated with a modern illumination system, creating an inviting ambiance for readers.
- **Regional Outreach:**
  - The North East Regional Centre of the National Digital Library of India (NDLI), hosted by the library, has played a pivotal role in offering training and support to regional institutes for building digital repositories. A one-day "Training cum awareness programme for NDLI Club administrators", under the behest of NDLI NE Regional Centre (NDLI-NERC), was organized on 18th November 2024 at IIT Guwahati, which was participated by 133 delegates from different, colleges, universities and institutes of North East India.

Centre for Career Development

The placement scenario of IIT Guwahati for the year 2023-24 has been impressive. More than 448 companies/organizations 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, Educational, etc.) participated in the recruitment process. It includes a total of 12 PSUs.

The total number of registered students for campus placement in the year 2023-24 is 1654 and 1084 nos. of students already got placed so far. A total of 219 numbers of students received PPOs this year. It is worth mentioning that a total of 102 students got package of 50 LPA.

A total of 841 number of B.Tech students registered for placement in 2023-24. Among this, 622 (74%) students have been placed so far. Overall, more than 40% students have been placed in the respective core sectors.

Students' internship record has been pretty good this year. More than 115 companies registered for internship in 2023-24 and 426 nos. of students received internship offers so far. There was 100% internship offers for MBA students. Further, a significant increase in master's students' internships has been witnessed as compared to last year's data.

Besides, motivational talks, career counseling and soft-skill development workshops were also organized for the students. Some of them are listed below. A few photographs are also appended.

Name of the event	**Date**
Talk on Career in Indian armed forces	21/03/2023
A talk on Civil Service as Career Option	03/04/2023
HP Omen Valorant Gaming Event	04-06/08/2023
Talk on higher studies in USA	17/08/2023
Talk on Indian Navy as a Career Choice	25/08/2023
Session on how to crack Product Management (PM) Interviews	01/10/2023
Meeting with Google team	20/10/2023
Interactive Session with the Officials of Airports Authority of India (AAI), a miniratna, and Seminar on Vigilance Awareness and Exciting Career Opportunities in AAI	02/11/2023
Science to Startups – commercializing deep tech products	24/04/2024

In addition to the campus hiring for the students, CCD also organizes various training programs for staff members to upgrade their skills and apprise with latest changes. A total of four numbers of training programs were organized by CCD with the help of SIERD, New Delhi for the staff/officers/faculty in the year 2023-24 as given below:

- Public Procurement, E-Procurement, Govt. E-Marketplace (GeM) during July 17-19, 2023
- RTI related office procedure during September 25-26, 2023
- Accounting, Auditing and Preparation of UC/SE for Various Schemes/Extramural Project funded by Central or State Govt. Dept. & Autonomous Institutions during February 05-07, 2024
- Recruitment Procedures, Promotion Rules, Seniority, APAR, DPC, Sealed Cover Penalties, Roster Maintenance & Pay Fixation during March 14-15, 2024

Centre for Educational Technology

YEAR OF ESTABLISHMENT OF THE CENTRE: 2003-2004

ACADEMIC PROGRAMMES OFFERED

S. No.	PROGRAMMES DEVELOPED/OFFERED	Scheme
1	Developed several UG/PG academic courses covering almost all the science /Engineering discipline offered by IITG faculties	CSS-MOOCs
2	Administrated the admission process of Masters & PhD (All Science and Engineering Departments)	QIP
3	Interdisciplinary/Industry oriented/Research oriented academic short-term courses jointly developed by an international faculty of repute along with IITG faculty	GIAN
4	Online courses and Professional Certificates	Coursera
5	Training Courses for Defense forces	PRC
6	NPTEL Pre-Baccalaureate fellowship	NPTEL Pre-Doc
7	NPTEL Winter Internship	NPTEL

LABORATORY FACILITIES:

No. of Laboratories with brief introduction:

- State-of-the-art E-class room:
  Provides all facilitates 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 studious are equipped with devices of latest technology such as, HD cameras, interactive display, Graphics tablet, Switcher, Recorder etc.

- Editing Laboratory (1&2)
  Edits all kind of educational content created at IITG, using iMac & Apple Mac Pro systems.

- MOOCs Laboratory:
  Uploads & maintains MOOCs Content on Servers for National & International learners via NPTEL HQ at IITM.

- State-of-the-art Video Conferencing Room:
  This 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.

- Live Session Room (1 & 2): These rooms are used for regular live sessions of various MOOCs courses

MAJOR EQUIPMENT AND FACILITIES ACQUIRED (1 APRIL 2024– 31 MARCH 2025):

- **Mirrorless Camera**
- **Camcorder**
- **Adobe Master Collection**

MAJOR INITIATIVES AND BREAKTHROUGHS:

1. **A total of 164 video courses (13 new and 151 rerun) were completed under CSS- MOOCs.**
2. **6 nos. of Coursera MOOC courses were completed.**

1	Dr. Sajan Kapil	Elements of Computer Aided Manufacturing	Coursera	Mar 21, 2025 - present	International	147
2	Dr. Keyur Sorathia	UX Design: An Introduction	Coursera	Feb 11, 2025 - present	International	317
3	Dr. Keyur Sorathia	Designing User Interfaces and User Interactions	Coursera	Feb 11, 2025 - present	International	98
4	Dr. Keyur Sorathia	User Research Methods and Practices	Coursera	Feb 11, 2025 - present	International	132
5	Dr. Samit Bhattacharya, Dr. Sajan Kapil	Computer Aided Design	Coursera	Mar 21, 2025 - present	International	424
6	Dr. Sajan Kapil	Essentials of Additive Manufacturing	Coursera	Mar 21, 2025 - present	International	97

3. **Total 5(Five) Nos. of PhD students and 1(One) M.Tech. Students have been enrolled under the QIP program for the July 2024 Session.**
4. **A total of 17 students were admitted to the One-Year Post Baccalaureate Fellowship Program under NPTEL.**

Sl. No.	**Fellows' Name**	**Project Title**	**Faculty Name**
1	Gosetty Sri Ramya	Creating awareness about sustainability through online entertainment gaming	Prof. Sharmistha Banerjee
2	Priyanshu Ghosh	Design and development of a bio-inspired hip protector for elderly people made of shear thickening fluid filled 3D-printed metamaterial	Prof. Prasenjit Khanikar
3	Rathish M	Design and development of a bio-inspired hip protector for elderly people made of shear thickening fluid filled 3D-printed metamaterial	Prof. Prasenjit Khanikar
4	Bhoomi Agarwal	Design for User Experience for Government application portals	Prof. Debayan Dhar
5	B. Raghu Raman	Design for User Experience for Government application portals	Prof. Debayan Dhar

6	Vansh Pradeep Singh Rathore	Design for User Experience for Government application portals	Prof. Debayan Dhar
7	Pokala Sai Gopal	Efficient VLSI Implementation of Semantic Segmentation Algorithms for Autonomous Vehicles	Prof. Shaik Rafi Ahamed
8	Sutharshanan B G	Hardware Accelerator Synthesis of Machine Learning (ML) Models	Prof. Chandan Karfa
9	Rajanala Ruchitha Devi	Identifying the different strategies employed to hide knowledge	Prof. Abraham Cyril Issac
10	Rahul P	Identifying the different strategies employed to hide knowledge	Prof. Abraham Cyril Issac
11	Harshit Kumar	Integrated Sensing and Communication	Prof. Ribhu
12	Ashutosh Yadav	Low carbon method for valorizing industrial waste as useful geomaterials	Prof. Sreedeep Sekharan
13	Upadrashta Venkata Sai Sri Bhanu Tejaswi	Low carbon method for valorizing industrial waste as useful geomaterials	Prof. Sreedeep Sekharan
14	Anna Saju	Low carbon method for valorizing industrial waste as useful geomaterials	Prof. Sreedeep Sekharan
15	Tatineni Kushala	Paper-Based Microfluidic Detection of Adulterants/Pesticides in Tea Samples	Prof. Pranab K Mondal
16	Chirag Chhatlani	Simulation of Compressible Flow Problems	Prof. Niranjan Sahoo
17	Sparshika Ram Metkar	Transport processes in multiphase systems	Prof. Raghvendra Gupta

5. Total 07 (seven) NPTEL interns participated in Winter Internship.

Sl No.	**Intern Name**	**Guide**
1	Ms. Charitha Samireddy	Prof. Chandan Karfa
2	Mr. Chekka Veera Venkata Sandeep	Prof. Chandan Karfa
3	Mr. Sri Ram Salopantula	Prof. Chandan Karfa
4	Ms. Gelli Swarna Latha	Prof. Chandan Karfa
5	Mr. Chintha Nagaraju	Prof. Chandan Karfa
6	Mr. Kokkiligadda Lakshmi Prasad	Prof. Vishal Trivedi

6. A total 08 nos. of online workshops were conducted under NPTEL

7. A total 08 nos. of GIAN courses were conducted.

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES (1 APRIL 2024– 31 MARCH 2025)

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks
01	Prof Detlev Markus	Physikalisch-Technische Bundesanstalt (PTB) Braunschweig, Germany	GIAN course on Combustion Theory and Applications	25 November - 6 December, 2024	
02	Prof Jose Wudka	University of California, Riverside	GIAN course on Standard Model Effective Field theories and applications to Higgs, neutrinos and dark matter	9 - 13 December, 2024	
03	Dr. Juraj Simko	University of Helsinki,Finland	GIAN course on "Modeling Linguistic Diversity and Prosodic Typology with Machine Learning	20-24 January, 2025	
04	Prof. Tomohiko Sakao	Linköping University, Sweden	GIAN course on "Product Service System Design: Methods and Tools with a Design and Technology Management Perspective".	27-31 January, 2025	
05	Dr Ashish Bhaskaar	Queensland University of Technology (QUT), Brisbane, Australia	GIAN course on Optimizing transport networks: Recent advancements and R&D needs for network operations and control".	27-31 January, 2025	
06	Prof. Menezo Christophe	Director of National solar Energy,France	GIAN course on "Advances in Solar Collector Technologies".	3-7 March, 2025	
07	Prof. Prabhat Mishra	Professor at the University of Florida,USA	GIAN course on "Explainable AI for Cybersecurity".	10 – 21 March 2025	
08	Prof SHASHI SATHISAN NAMBISAN	Heads UNLV's Transportation Research Center,Las Vegas	GIAN course on "Improving Traffic Safety by Leveraging Data and Emerging Technologies".	24-28 March, 2025	

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED:

Sl.No.	Name of Faculty (Convener/Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded by	Date	National/International	No. of participants /enrollment
1	Prof. T. V. Bharat & Dr. Sajan Kapil	Certificate Course on 3D Printing Technology	DGR	From 12-08-2024 to 01-11-2024	National	**31**
2	Prof. T. V. Bharat & Prof. S.K.Dwivedy	Certificate Course on Drone Technology	DGR	From 09-Sep-24 to 13-12-2024	National	**29**
Online workshop						

1	Dr. Issac Abraham	Negotiation Mastery: Strategies for Conflict and Collaboration	NPTEL, IITM	9-Nov-2024	National	47
2	Dr. Issac Abraham	Extreme Leadership: Pushing Limits and Driving Change	NPTEL, IITM	30-Nov-2024	National	139
3	Dr. Vishal Trivedi	Workshop on tools and techniques of molecular cloning	NPTEL, IITM	Dec 14 & 15, 2024	National	320
4	Dr. Pankaj Biswas	Introduction to Fundamentals of Solid Mechanics	NPTEL, IITM	Jan 4 & 5, 2025	National	51
`5	Dr. Sharmistha Banerjee	Serious Game Design	NPTEL, IITM	Feb 8 and 9, 2025	National	33
6	Dr. Issac Abraham	Developing Junzi Personality	NPTEL, IITM	15-Mar-2025	National	51
7	Dr. Issac Abraham	Paradoxical Safety Leadership	NPTEL, IITM	5-Apr-2025	National	39
8	Dr. Issac Abraham	Deciphering Employee Ambidexterity	NPTEL, IITM	3-May-2025	National	29
Online Video courses developed Under CSS-MOOCs						
1.	Prof. Manas Das	Advanced Machining Processes	MoE	Aug-24	International	5178
2.	Prof. Saurabh Basu	Advanced Quantum Mechanics with Applications	MoE	Jul-24	International	1413
3.	Prof. Niranjan Sahoo	Advanced Thermodynamics and Combustion	MoE	Jul-24	International	902
4.	Prof. Swarup Bag	Advances in Welding and Joining Technologies	MoE	Aug-24	International	2982
5.	Prof. Vinayak N. Kulkarni	Aircraft Propulsion	MoE	Jul-24	International	1880
6.	Prof. Niranjan Sahoo Prof. Pranab Kumar Mondal	Applied Thermodynamics	MoE	Jul-24	International	1386
7.	Prof. Dipankar N. Basu	Applied Thermodynamics for Engineers	MoE	Jul-24	International	701
8.	Prof. Prabirkumar Saha	Aspen Plus® Simulation Software - A Basic Course For Beginners	MoE	Jul-24	International	3689
9.	Prof. Shrikrishna N. Joshi	Automation in Manufacturing	MoE	Jul-24	International	5969
10.	Prof. Chandan Karfa	C-Based VLSI Design	MoE	Jul-24	International	4921
11.	Prof. Subrata Kumar Majumder	Chemical Process Intensification	MoE	Jul-24	International	359

12.	Prof. Bishnupada Mandal	Chemical Reaction Engineering-I	MoE	Jul-24	International	543
13.	Prof. Sachin Singh Gautam	Computational Continuum Mechanics	MoE	Jul-24	International	298
14.	Prof. Samit Bhattacharya	Computer Graphics	MoE	Jul-24	International	8853
15.	Prof. Naveen Kashyap	Consumer Psychology	MoE	Jul-24	International	5367
16.	Prof. Samit Bhattacharya	Design & Implementation of Human-Computer Interfaces	MoE	Jul-24	International	9540
17.	Prof. Rajshree Bedamatta	Development Research Methods	MoE	Aug-24	International	2383
18.	Prof. Prasenjit Khanikar	Dynamic Behaviour of Materials	MoE	Jul-24	International	382
19.	Prof. Girish S. Setlur	Dynamics of Classical and Quantum Fields	MoE	Jul-24	International	367
20.	Prof. Ngamjahao Kipgen	Ecology and Society	MoE	Jul-24	International	2955
21.	Prof. Rajshree Bedamatta	Economics of Health and Education	MoE	Jul-24	International	5592
22.	Prof. Vaibhav V. Goud	Energy Conversion Technologies (Biomass and Coal)	MoE	Jul-24	International	1406
23.	Prof. Naveen Kashyap	Engineering Psychology	MoE	Aug-24	International	1462
24.	Prof. Ngamjahao Kipgen	Environment and Development	MoE	Jul-24	International	5724
25.	Prof. Urmi R. Salve	Ergonomics Research Techniques	MoE	Jul-24	International	541
26.	Prof. Urmi R. Salve	Ergonomics Workplace Analysis	MoE	Jul-24	International	491
27.	Prof. Vishal Trivedi	Experimental Biotechnology	MoE	Jul-24	International	3559
28.	Prof. Atanu Banerjee, Prof. Arup Nandy	Finite Element Method: Variational Methods to Computer Programming	MoE	Jul-24	International	638
29.	Prof. Subashisa Dutta	Fluid Mechanics	MoE	Jul-24	International	3112

30.	Prof. Subrata Kumar Majumder	Fluidization Engineering	MoE	Jul-24	International	217
31.	Prof. Sajan Kapil	Fundamentals of Additive Manufacturing Technologies	MoE	Jul-24	International	3414
32.	Prof. Shyamanta M. Hazarika	Fundamentals of Artificial Intelligence	MoE	Jul-24	International	15791
33.	Prof. Amaresh Dalal Prof. Dipankar N Basu	Fundamentals of Conduction and Radiation	MoE	Jul-24	International	312
34.	Prof. Amaresh Dalal	Fundamentals of Convective Heat Transfer	MoE	Jul-24	International	387
35.	Prof. Vishal Trivedi	Genetic Engineering: Theory and Application	MoE	Jul-24	International	3425
36.	Prof. Utpal Bora	Genome Editing and Engineering	MoE	Jul-24	International	2179
37.	Prof. Biplab Bose	Introduction to Dynamical Models in Biology	MoE	Jul-24	International	478
38.	Prof. Amarjyoti Mahanta	Introduction to Market Structures	MoE	Jul-24	International	497
39.	Prof. Amit Kumar	Introduction to Polymer Physics - IITG	MoE	Jul-24	International	132
40.	Prof. Mithilesh Kumar Jha	Introduction to Western Political Thought	MoE	Jul-24	International	993
41.	Prof. Abraham Cyril Issac	Labour Welfare and Industrial Relations	MoE	Jul-24	International	1890
42.	Prof. Shrikrishna N. Joshi	Laser Based Manufacturing	MoE	Aug-24	International	2367
43.	Prof. M.K. Bhuyan	Machine Learning and Deep Learning - Fundamentals and Applications	MoE	Jul-24	International	13917
44.	Prof. Bishnupada Mandal	Mass Transfer Operations - I	MoE	Jul-24	International	463
45.	Prof. Chandan Das	Mass Transfer Operations II	MoE	Jul-24	International	299
46.	Prof. Swarup Bag	Materials Processing (Casting, Forming and Welding)	MoE	Jul-24	International	1034
47.	Prof. Swarup Bag	Mathematical Modeling of Manufacturing Processes	MoE	Jul-24	International	341

48.	Prof. Debarshi Das	Mathematics For Economics - I	MoE	Jul-24	International	777
49.	Prof. Nanda Kishore	Mechanical Unit Operations	MoE	Jul-24	International	248
50.	Prof. Ratnajit Bhattacharjee	Microwave Engineering	MoE	Jul-24	International	1380
51.	Prof. John Jose	Multi-Core Computer Architecture	MoE	Jul-24	International	3089
52.	Prof. Ajay Kalamdhad	Municipal Solid Waste Management	MoE	Jul-24	International	8947
53.	Prof. Debabrata Sikdar	Nanophotonics, Plasmonics, and Metamaterials	MoE	Jul-24	International	633
54.	Prof. Pankaj Tiwari	Natural Gas Engineering	MoE	Jul-24	International	496
55.	Prof. Sudip Mitra	Natural Resources Management	MoE	Jul-24	International	3135
56.	Prof. Poulose Poulose	Nuclear and Particle Physics	MoE	Jul-24	International	1533
57.	Prof. Rajib Kumar Bhattacharjya	Optimization Methods for Civil Engineering	MoE	Jul-24	International	1322
58.	Prof. Nanda Kishore	Organic Chemical Technology	MoE	Jul-24	International	527
59.	Prof. Pankaj Tiwari	Petroleum Reservoir Engineering	MoE	Aug-24	International	861
60.	Prof. Debabrata Sikdar	Photonic Crystals: Fundamentals & Applications	MoE	Jul-24	International	229
61.	Prof. Sanjib Ganguly	Power Electronics Applications in Power Systems	MoE	Jul-24	International	1782
62.	Prof. Pranab K. Mondal	Principle of Hydraulic Machines and System Design	MoE	Jul-24	International	796
63.	Prof. T Punniyamurthy	Principles of Organic Synthesis	MoE	Jul-24	International	766
64.	Prof. Saurabh Basu	Quantum Hall Effects	MoE	Jul-24	International	262
65.	Prof. Subhas Chandra Pan	Reagents in Organic Synthesis	MoE	Jul-24	International	1072
66.	Prof. Arunasis Chakarborty	Reliability-Based Structural Design	MoE	Jul-24	International	296

67.	Prof. Rishikesh Bharti	Remote Sensing and GIS	MoE	Jul-24	International	4168
68.	Prof. Subashisa Dutta	River Engineering	MoE	Jul-24	International	923
69.	Prof. Sambit Mallick	Science, Technology and Society	MoE	Jul-24	International	1093
70.	Prof. Ribhu	Simulation of Communication Systems using Matlab	MoE	Jul-24	International	3014
71.	Prof. Sambit Mallick	Sociology of Development	MoE	Jul-24	International	1746
72.	Prof. Pankaj Kalita	Solar Energy Engineering and Technology	MoE	Jul-24	International	3339
73.	Prof. Subrata Kumar Majumder	Solid-Fluid Operations	MoE	Jul-24	International	164
74.	Prof. Saurabh Basu	Statistical Physics of Non-Interacting and Interacting Systems	MoE	Jul-24	International	468
75.	Prof. Vinayak N. Kulkarni	Steam Power Engineering	MoE	Jul-24	International	560
76.	Prof. Abhishek Kumar	Subsurface Exploration :Importance And Techniques Involved	MoE	Jul-24	International	634
77.	Prof. Pankaj Kalita	Sustainable Power Generation Systems	MoE	Jul-24	International	3772
78.	Prof. Sharmistha Banerjee	System Design for Sustainability	MoE	Jul-24	International	1081
79.	Prof. Shaik Rafi Ahamed	System Design Through Verilog	MoE	Jul-24	International	9637
80.	Prof. Naveen Kashyap	The Psychology of Language	MoE	Jul-24	International	3216
81.	Prof. R. Anandalakshmi	Thermal Processing of Foods	MoE	Jul-24	International	948
82.	Prof. Nanda Kishore	Transport Phenomena of Non-Newtonian Fluids	MoE	Jul-24	International	233
83.	Prof. Pankaj Biswas	Welding Application Technology	MoE	Jul-24	International	1701
84.	Prof. Saurabh Basu	A Brief Course On Superconductivity	MoE	Jan-25	International	4198

85.	Prof. Sreedeep S	Advanced Soil Mechanics	MoE	Jan-25	International	936
86.	Prof. Nanda Kishore	Advanced Thermodynamics	MoE	Jan-25	International	387
87.	Prof. Abraham Cyril Issac	AI in Human Resource Management	MoE	Jan-25	International	27359
88.	Prof. Raghvendra Gupta	An Introduction to Cardiovascular Fluid Mechanics	MoE	Jan-25	International	888
89.	Prof. Abhishek Kumar	Applied Seismology for Engineers	MoE	Jan-25	International	352
90.	Prof. Tamal Banerjee	Applied Statistical Thermodynamics	MoE	Jan-25	International	434
91.	Prof. Prabirkumar Saha	Aspen Plus Simulation Software - A Basic Course for Beginners	MoE	Jan-25	International	3588
92.	Prof. Subrata Kumar Majumdar	Basic Principles and Calculations in Chemical Engineering	MoE	Jan-25	International	676
93.	Prof. Vishal Trivedi	Basics of Biology	MoE	Jan-25	International	6029
94.	Prof. Bidisha Som	Bilingualism: A cognitive and psycholinguistic perspective	MoE	Jan-25	International	425
95.	Prof. Lalit M. Pandey	Biointerface Engineering	MoE	Jan-25	International	323
96.	Prof. Kaustubha Mohanty	Biomass Conversion and Biorefinery	MoE	Jan-25	International	1686
97.	Prof. Tamal Banerjee	Chemical Process Technology	MoE	Jan-25	International	468
98.	Prof. Amaresh Dalal	Computational Fluid Dynamics For Incompressible Flows	MoE	Jan-25	International	1105
99.	Prof. Prakash Kotecha	Computer Aided Applied Single Objective Optimization	MoE	Jan-25	International	302
100	Prof. M. K. Bhuyan	Computer Vision And Image Processing - Fundamentals And Applications	MoE	Jan-25	International	8219
101	Prof. Indu Siva Ranjani Gandhi	Construction Methods and Equipment Management	MoE	Jan-25	International	1750

102	Prof. Biplab Bose	Data Analysis for Biologists	MoE	Jan-25	International	2815
103	Prof. Shabari Nath	Design Of Power Electronic Converters	MoE	Feb-25	International	4138
104	Prof. Chandan Karfa, Prof. Aryabartta Sahu	Digital Design with Verilog	MoE	Jan-25	International	11060
105	Prof. Rajshree Bedamatta	Economic Growth And Development	MoE	Jan-25	International	2363
106	Prof. Saurabh Basu	Elements of Modern Physics	MoE	Jan-25	International	920
107	Prof. Pranab K. Mondal	Engine system and performance	MoE	Jan-25	International	1063
108	Prof. Sreeja Pekkat	Engineering Hydrology	MoE	Jan-25	International	943
109	Prof. Vishal Trivedi	Enzyme Sciences and Technology	MoE	Jan-25	International	1582
110	Prof. Lal Mohan Kundu	Essentials Of Biomolecules : Nucleic Acids And Peptides	MoE	Jan-25	International	488
111	Prof. Deepak Sharma	Evolutionary Computation For Single And Multi-Objective Optimization	MoE	Jan-25	International	324
112	Prof. Anil Kumar Mishra	Expansive Soil	MoE	Jan-25	International	677
113	Prof. Swarup Bag	Finite Element Modeling Of Welding Processes	MoE	Jan-25	International	443
114	Prof. Subrata Kumar Majumdar	Fluid Flow Operations	MoE	Jan-25	International	291
115	Prof. Raghvendra Gupta	Fundamental Of Fluid Mechanics For Chemical And Biomedical Engineers	MoE	Jan-25	International	227
116	Prof. Pankaj Biswas	Fundamental Of Welding Science And Technology	MoE	Jan-25	International	1893
117	Prof. Niranjan Sahoo	Fundamentals Of Compressible Flow	MoE	Jan-25	International	249

118	Prof. Dipankar N. Basu	Fundamentals Of Nuclear Power Generation	MoE	Jan-25	International	839
119	Prof. Pankaj Biswas	Fundamentals of thermo-mechanical & fatigue analysis of welded structure	MoE	Jan-25	International	194
120	Prof. Naveen Kashyap	Human Behaviour	MoE	Feb-25	International	12208
121	Prof. Pranab K. Mondal, Prof. Vinayak N. Kulkarni	IC Engines And Gas Turbines	MoE	Jan-25	International	2091
122	Prof. Vipul Dutta	Indian Business History	MoE	Jan-25	International	2311
123	Prof. Nanda Kishore	Inorganic Chemical Technology	MoE	Jan-25	International	370
124	Prof. Shaik Rafi Ahamed	Integrated Circuits and Applications	MoE	Jan-25	International	2011
125	Prof. Naveen Kashyap	Introduction To Cognitive Psychology	MoE	Jan-25	International	6847
126	Prof. Swarup Bag	Introduction To Crystal Elasticity And Crystal Plasticity	MoE	Jan-25	International	97
127	Prof. Kiran Keshavamurthy	Introduction To Modern Indian Drama	MoE	Feb-25	International	1229
128	Prof. Mithilesh Kumar Jha	Introduction To Modern Indian Political Thought	MoE	Jan-25	International	2511
129	Prof. Mithilesh Kumar Jha	Introduction To Political Theory	MoE	Jan-25	International	1209
130	Prof. N. Selvaraju	Introduction To Queueing Theory	MoE	Jan-25	International	421
131	Prof. Swarup Bag	Introduction to Solidification Processing	MoE	Feb-25	International	275
132	Prof. Girish S. Setlur	Introduction To Statistical Mechanics	MoE	Jan-25	International	541
133	Prof. Bidisha Som	Language, Culture And Cognition: An Introduction	MoE	Jan-25	International	587

134	Prof. Uday S. Dixit	Mechanics of Machining	MoE	Jan-25	International	603
135	Prof. R Ganesh Narayanan	Mechanics of Sheet Metal Forming	MoE	Feb-25	International	521
136	Prof. Kaustubha Mohanty	Membrane Technology	MoE	Jan-25	International	668
137	Prof. Utpal Bora	Microbial Biotechnology	MoE	Jan-25	International	4751
138	Prof. Shaik Rafi Ahamed	Microprocessors and Interfacing	MoE	Jan-25	International	3397
139	Prof. Vishal Trivedi	Molecular Biology	MoE	Jan-25	International	4468
140	Prof. S. K. Dwivedy	Nonlinear Vibration	MoE	Jan-25	International	239
141	Prof. Sanjib Ganguly	Operation and Planning Of Power Distribution Systems	MoE	Jan-25	International	913
142	Prof. Abraham Cyril Issac	Organizational Behaviour: Individual Dynamics in Organization	MoE	Jan-25	International	8235
143	Prof. Hemangee K. Kapoor	Parallel Computer Architecture	MoE	Jan-25	International	2216
144	Prof. Sambit Mallick	Philosophical Foundations Of Social Research	MoE	Jan-25	International	272
145	Prof. Shakuntala Mahanta	Phonetics And Phonology: A Broad Overview	MoE	Jan-25	International	428
146	Prof. Tamal Banerjee	Physical And Electrochemical Characterizations In Chemical Engineering	MoE	Jan-25	International	166
147	Prof. Niranjan Sahoo	Power Plant System Engineering	MoE	Jan-25	International	914
148	Prof. Dipankar N. Basu	Principles Of Mechanical Measurement	MoE	Jan-25	International	519
149	Prof. Dilwar Hussain	Psychology of Personality and Individual Differences: Theory and Applications	MoE	Jan-25	International	2825
150	Prof. Dilwar Hussain	Psychology Of Stress, Health And Well-Being	MoE	Jan-25	International	14025

151	Prof. Amarendra Kumar Sarma	Quantum Entanglement: Fundamentals, measures and applications	MoE	Feb-25	International	1260
152	Prof. Vaibhav Vasant Goud Prof. R. Anandalakshmi	Renewable Energy Engineering: Solar, Wind And Biomass Energy Systems	MoE	Jan-25	International	4552
153	Prof. Sambit Mallick	Sociological Perspectives On Modernity	MoE	Jan-25	International	427
154	Prof. Arunasis Chakraborty	Structural Vibration	MoE	Jan-25	International	399
155	Prof. Poonam Kumari	Theory Of Composite Shells	MoE	Jan-25	International	148
156	Prof. Poonam Kumari	Theory of Rectangular Plates-Part1	MoE	Jan-25	International	82
157	Prof. Pranab K. Mondal	Thermal Engineering: Basic and Applied	MoE	Jan-25	International	742
158	Prof. Sandip Paul	Thermodynamics: Classical To Statistical	MoE	Jan-25	International	143
159	Prof. Saurabh Basu	Topology and Condensed Matter Physics	MoE	Feb-25	International	521
160	Prof. Manmohan Pandey	Two-Phase Flow With Phase Change In Conventional And Miniature Channels	MoE	Jan-25	International	74
161	Prof. Tadikonda Venkata Bharat	Unsaturated Soil Mechanics	MoE	Jan-25	International	184
162	Prof. Debayan Dhar	Usability Engineering	MoE	Jan-25	International	460
163	Prof. Samit Bhattacharya	User-centric Computing For Human-Computer Interaction	MoE	Jan-25	International	1769
164	Prof. Amaresh Dalal	Viscous Fluid Flow	MoE	Jan-25	International	266

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
01	Prof. T. V. Bharat	Indian Institute of Science, Bangalore	HoC, CET Professor, Department of Civil Engineering, IIT Guwahati	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 & geoenvironmental engineering problems
*Faculties are not engaged at CET. HoC, CET as Coordinator coordinates several programs and runs several projects with different project investigators.				

School of Agro and Rural Technology

YEAR OF ESTABLISHMENT OF THE SCHOOL: 2016

ACADEMIC PROGRAMMES OFFERED: M.Tech and PhD

LABORATORY FACILITIES

LABORATORY FACILITIES:

No. of Laboratories with brief introduction: 09 Labs

- Agro-Eco Technology Lab: The central focus of the Agro-ecotechnology laboratory (AEL) is the dynamic integration of the knowledge culled from the field and laboratory. This amalgamation is being used to accelerate the development and customization of affordable, efficient and sustainable solutions. A cardinal balance of technological and human factors is essential for the transformation of this amalgamation in to viable outcomes. This vision is translated into the driving principle of the AEL lab "linking science and technology with society".
  Equipment: Gas Chromatography, Digital Flame Photometer, Spectrophotometer, Automated Weather Station, Tabular Furnace, Hand-held Sensitive pH and EC meter, Table Top Centrifuge, Mini Bacteriological Incubator, Fluorescent spectrophotometer.
- Food and Bioprocess Lab Focus Areas: Food Quality and Safety, Nutritional Analysis, Water Sanitation.
  Equipment: Fibre Analyzer, Dehumidifier Dryer, Sieve Shaker
- Water and Sanitation Lab Focus Areas: Organic contaminant analysis, Biological oxygen demand testing, Turbidity measurement.
  Equipment: TOC Analyzer, BOD Incubator, Digital Nephelometric Turbidity Meter
- Common Wet Lab and Workshop Focus Areas: Analytical chemistry, Sample preparation method development.
  Equipment: Kjeldahl Digestion & Distillation Apparatus, Rotary Evaporator, Spectrophotometer, Digital Flame Photometer, Muffle Furnace, Tray Dryer.
- SART's Instruments Facility (SIF) Focus Areas: Analytical chemistry, Materials characterization, Environmental monitoring, Biomedical research.
  Equipment: High-Performance Liquid Chromatography (HPLC) System, Atomic Absorption Spectrophotometer, UV-VIS Spectrophotometer, Probe Type Ultrasonicator.
- Common Microbiology Lab (Sanitized Environment) Focus Areas: Microbial cultivation, Microscopic analysis, Sample preservation, Sterilization, Cell separation, Microbial bioprocessing.
  Equipment: Microbiological Incubator, Trinocular Stereo Zoom and Compound Microscope with camera, -80°C Deep Freezer, Centrifuge (Ambient, Temperature Controlled), Autoclave, Orbital Shaker with Incubator.
- Agribusiness Innovation and Entrepreneurship Lab We at Agribusiness Innovations and Entrepreneurship Lab work in the areas of entrepreneurship and startup development, innovations in business models, digitization, marketing, supply chain management, and applications of AI, ML and BC in agriculture and allied sectors.
- Agro-Geoinformatics Lab Agro-geoinformatics' laboratory which deals with digital agriculture by integrating digital technologies such as sensors, data collection systems, and analytic platforms. The lab focuses on translating the data into information and then to practice by involving public-private in connection with farmers. The ideology is lined with the concept that "We know how to farm crops, now it's time to learn how to farm the data to make actionable decisions."
- Sustainable Energy Lab We are developing innovative sustainable energy technology solutions and their effective implementation in rural areas. We aim to increase the efficiency and affordability of low carbon and less emission energy sources.
  Equipment: Flue Gas Analyzer, Dust Tracker, Thermal Imager, Solar powered cane slicing machine, Work station.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED:

Kjeldahl Digestion & Distillation Apparatus
computerized Bomb Calorimeter,
Digital Magnetic Hotplate stirrer, 02 nos.
6KVA UPS,
High End Printer,
CCTV System,
Interactive Display with OPS, 04 nos. printer,
Large Signage Display, 06 nos. micropipette.

MAJOR AREAS OF RESEARCH AND DEVELOPMENT:

1. Agro Eco Technology
2. Solid Waste Management
3. Food Processing
4. Agro-Biotechnology
5. Rural Health
6. Rural Energy
7. Rural Spatial Planning and Geoinformatics
8. Digital Agriculture
9. Water resource Management
10. Agribusiness Management
11. Technology Delivery and Impact assessment
12. Natural Resource Management

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

Sl. No.	Name of faculty	Name of Research Group	Outcome of Basic Research/Applied Research/Experimental Development/Breakthrough R&D Projects
1	Prof. Sudip Mitra	Agro-Ecotechnology Lab	Developed prototype for wastewater treatment especially for removal of antibiotics, named BHEEMA (Covered in national media and news:https://timesofindia.indiatimes.com/science/iit-guwahati-develops-sustainable-solution-using-mushroom-waste-for-wastewater-treatment/articleshow/121389226.cmhttps://timesofindia.indiatimes.com/science/iit-guwahati-develops-sustainable-solution-using-mushroom-waste-for-wastewater-treatment/articleshow/121389226.cms)
2	Dr. Sagar Surendra Deshmukh	Agribusinees Innovation and Entreprenuership Lab	The Agribusiness Innovation and Entrepreneurship Lab focuses in the areas of business model innovations, agri supply chain management and entrepreneurship development in agriculture and allied areas
3	Dr. Risha Mal	Sustainable Energy and Emission Research Group	Developed a new laboratory "Sustainable Energy Lab" which focusses on development of technologies that are sustainable with net zero emission
4	Dr. Diapnkar Mandal	Agro-geoinformatics Lab	Developed a new laboratory ‘Agro-geoinformatics Lab’ which deals with digital agriculture by integrating digital technologies such as sensors, data collection systems, and analytic platforms. The lab focuses on translating the data into information and then to practice by involving public-private in connection with farmers.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL

Sl. No.	Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
1	Prof. Sudip Mitra	11th Annual convention and National Webinar, Society for fertilizers and Environment, Kolkata	Kolkata, West Bengal	23-24 February, 2024	National
		Launching of JICA sponsored Country specific capacity building training program at JICA Head Quarter	Tokyo, Japan	11-25 May, 2024	International
		International colloids conference (2024), Sitges, Barcelona, Spain	Barcelona, Spain	9-12 June, 2024	International
		Research Industrial Conclave (RIC' 2024), IIT Guwahati	Guwahati, India	9-11 August, 2024	National
		Indo Finnish Joint Course, Themes in Circular Economy and Sustainability, IIT Dharwad, Karnataka, India	Karnataka, India	19-23 August, 2024	International
		Indian Ecological Society International Conference (IESIC, 2024). Punjab Agricultural University, Ludhiana, Punjab, India.	Ludhiana, Punjab	12-15 November, 2024	International
		Global soil conference (GSC 2024), NASC Complex, New Delhi, India	IARI, New Delhi	19-22 November, 2024	International
		PYROASIA (2024), IIT GUWAHATI	Guwahati, India	28-29 November, 2024	International
2	Dr. Sagar Surendra Deshmukh	International Conference on Climate Change and Environmental Sustainability in Mountainous and Hilly Landscapes	Silchar, Assam	Sept 30 – Oct 01, 2024	International
		Transformative Approaches in Nutritional Science for Resilient Futures: ICSSR's Pathway to Vision Viksit Bharat@2047	Jorhat, Assam	Feb 25 - 26, 2025	National
		Japan - NER Sustainable Technologies Cooperation Symposium 2025 (JNSTCS 2025)	Guwahati, Assam	March 03 - 05, 2025	International
		Research Industrial Conclave (RIC' 2024), IIT Guwahati	Guwahati, India	9-11 August, 2024	National

3	Dr. Risha Mal	International Conference on Sustainable Energy and Green Technology	Bangkok, Thailand	15 – 18 December 2024	International
4	Dr. Dipankar Mandal	IEEE India Geoscience and Remote Sensing Symposium (InGARSS)	Goa	02-05 December 2024	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Sl. No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
1	Prof. Sudip Mitra	International Water Day lecture on "Glaciers: The Custodian of Earth's Balance"	Institution of Engineers	Guwahati, Assam	22 March, 2025
		Agro- Ecotechnology and Climate Smart Agriculture; Paths towards Sustainable Rural Development	ICAR-CPCRI	Kayankulam, Kerela	13-14 June, 2024
		Invited as panelist for session on "Innovation and Entrepreneurship", APSTCDRR- 2024	IIT Roorkee	Roorkee, Uttarakhand	11-13 July, 2024
		Invited lecture in 9th session of GREEN SUMMIT	9th edition of Green Summit, Raipur, Chattisgarh	Raipur, Chattisgarh	3-5 October, 2024
		Invited lecture in National Conference on "Climate Change Impacts, Adaptation and Resilience"	Tezpur University	Tezpur, Assam	19-20 December, 2024
		Climate Smart Agriculture for Sustainable Agroecosystem: Bridging the Gap between Lab to Land	IIT Tirupati	Tirupati, Andhra Pradesh	27 December, 2024
2	Dr. Sagar Surendra Deshmukh	INTERFACE BETWEEN AGRI-STARTUP AND FPO IN INDIA: A WIN-WIN PARTNERSHIP MODEL	ASPEE Agribusiness Management Institute, Navsari Agriculture University, Navsari, Gujarat	Navsari, Gujarat	25th May2024
		Orientation on Incubation and Role of Agri startup in India for Sericulture Sector	National Institute of Agricultural Extension Management, Hyderabad	Hyderabad, India	24th July 2024
		Promoting Agripreneurship and Agri Starup Ecosystem in Northeastern region	Assam University, Silchar	Silchar, Assam	30th Sept 2024
		Orientation of Incubation and role of Agri Startups in India for Sericulture Sector	National Institute of Agricultural Extension Management, Hyderabad	Hyderabad, India	24th Oct 2024
		Agribusiness Management and Entrepreneurship Development	Gauhati University	Gauhati, Assam	19th Nov2024
		Agri-startup ecosystem and Funding opportunities	Acharya N G Ranga Agricultural University, Guntur	Guntur, Andhar pradesh	12th Nov 2024

		echnological and innovation challenges for emerging businesses in agri and allied sectors	ICAR-National Research Centre on Pig	Gauhati, Assam	20th Feb 2025
		Food Tech innovations and Entrepreneurial Opportunities	Assam Agricultural University, Jorhat	Jorhat, Assam	26Th Feb 2025
3	Dr. Risha Mal	IEEE IAS sponsored one week online workshop on "Leveraging Technology for Fostering Entrepreneurship, Higher Studies and Career Opportunities for Young Engineers	NIT Silchar	Online	13th Nov 2024
		MSME sponsored one week Advanced Entrepreneurship skill Development Programme (A-ESDP)	IIT Guwahati	IIT Guwahati	19-23 Nov 2024.
4	Dr. Dipankar Mandal	Radar Vegetation Indices as Analysis-Ready Data Product for Crop Monitoring: Foundational principles & practice	Shastri India-Canadian Institute -SICI Lecture Series on Recent Advances in Agricultural Crop Mapping and Monitoring Using Microwave Remote Sensing	IIT Kharagpur	18th Dec 2024
		Informed agricultural irrigation decision using GenAI and remote sensing data, National Conference on 'GeneRative AI for Nurturing Sustainable Agriculture (GRAINS2024)	Indian Society of Agricultural Information Technology (INSAIT) and Ahmedabad University	Ahmedabad University	25-26 October, 2024
		Geospatial Applications in agricultural sector with a focus on plantation crops	Workshop on Geospatial Applications for Plantation Crops Organized by ICAR-CPCRI, Kasargod and RRSC-South, NRSC-ISRO	Kasargod, Kerala	09-05-2024
		Radar Vegetation Indices: Bridging Crop Insurance and Remote Sensing for a New Era	Research and Industrial Conclave-Integration'24, IITGuwahati	IIT Guwahati	09-11 Aug 2024
		Remote Sensing in Agriculture: Foundational Principles and Practices	IEEE-GRSS Student Chapter	Thakur College Of Engineering and Technology (TCET), Mumbai	20th July 2024

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks
1	Mr. Rohit Kumar	National Institute of Disaster Management, Ministry of Home affairs, GoI	Institutional Framework for Disaster Risk Reduction in India	23rd Sept. 2024	
2	Dr. Aditi Kapoor	Founder of Alternative Futures	Towards a Gendered National Mission on Natural Farming	27th Aug 2024	
3	Abhishek Choudhury	Vice President, Indo Japan Business Council, Director Nanobiz India Pvt Ltd, Director Concrete Consulting Pvt Ltd	Theory of Inventive Problem Solving	1st Oct 2024	
4	Lau Langeveld	Delft University of Technology	Sustainability of Allotment Garden	20th Jan 2024	
5	Dr. Kaushik Banerjee	Director, ICAR-NRC Grapes, Pune	Research Collaboration	16th Sept 2024	
6	Mr. Jay Prakash Kumar	Tata Consultancy Services (Banglore)	Data analytics in agriculture: an industry perspective.	22nd Aug 2024	
7	Dr. Jintu Sarma	Gauhati College, Assam	Floristic Wealth of Eastern Himalaya with special reference to Orchids:A critical concern	12th Aug 2024	
8	Dr. Anandharamakrishnan C	Director of CSIR-NIIST, Thiruvananthapuram	Research Collaboration	Sep-24	

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	Dr. Sagar Deshmukh & Dr. Sudip Mitra	Financing Agro Startups	BIRD, NABARD	20 - 22 Nov, 2024	National	25

AWARDS AND HONOURS

- Prof. Sudip Mitra: NASI fellow, The National Academy of Sciences, India
- Prof. Sudip Mitra: PIWOT, PanIIT
- Dr. Sagar Surendra Deshmukh: Academic Excellence Award 2024, Srivery Academy of Excellance, Tamil Nadu

STUDENTS' ACHIEVEMENTS

- Silvia Saikia: Winner of Scientifique: Oral presentation, Research Conclave 2024, Indian Institute of Technology Guwahati
- Ranjana Deka: Best paper :oral presentation, National conference on Advances on food based technologies for food and nutrition security,an AAU-ICSSR initiative for vision viksit Bharat @2047,1st-2nd March,2025
- Sneha Singh:Second Best Presenter, International Conference: Environment 2024, IIT Guwahati
- Sneha Singh: Best Paper, International Conference: Innovations and Sustainability in Civil Engineering: Shaping Tomorrow's Infrastructure-2025, NIT Patna
- Shashi Kumar C:First prize: Oral Presentation, International conference on Sustainable Practices in Tribal Food Systems: Integrating Traditional Knowledge with Modern Food Processing Technologies March 28-29, 2025
- Vinny Kohli: Best poster award, 4th International Convention on Green Environment, Technology & Entrepreneurship through Innovation (ICGETEI 2024) held at Amity University Rajasthan, Jaipur from 11-13th September 2024 (Online).
- Kaushal Agarwal: Media coverage for the published research article 'Unveiling nutrient flow-mediated stress in plant roots using an on-chip phytofluidic device' in the Lab on a Chip journal. Media: ANI News, NDS news, News Daily 24, Northeast Times, Northeast Today, Daily Prabhat, eNews Time, News Point, West Bengal Khabar etc., Lab on a Chip journal
- Kamal Narayan Baruah: Best oral presentation award at Young Scientist Conclave - IISF2024 - for the work titled - "Exploring cholesterol reducing potential of EGCG through micellar pathaways and post nanoencapsulation", IISF 2024 held at IIT Guwahati from 30-11-2024 to 03-12-2024

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
1	Prof. Sudip Mitra	Indian Agricultural Research Institute, New Delhi	**Professor**	Biochar & Bio-Fertilizers development, Soil quality management, Natural Resources Management and Livelihood, Vulnerability & Adaptation in Agriculture sector, DRR
2	Dr. Meena Khwairakpam	Indian Institute of Technology Roorkee	**Associate Professor**	Solid waste management, Mechanical composting and vermi composting, Analysis of solid wastes, Biological waste treatment, Water Supply and Sanitation
3	Dr. Siddhartha Singha	Indian Institute of Technology Madras	**Assistant Professor**	Food Processing Technologies, Process biotechnology, Scale up and commercialization strategies in food- and bio-processing
4	Dr. Sagar Surendra Deshmukh	Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu	**Assistant Professor**	Agribusiness Management, Entrepreneurship Development, Startups, Technology and Innovation
5	Dr. Risha Mal	Indian Institute of Technology Delhi	**Assistant Professor**	Thermo-Electrics, Advanced Cookstoves Design and Testing, Renewable Energy, Ergonomics, Biomass Energy, Machine Learning and AI based systems.
6	Dr. Dipankar Mandal	Indian Institute of Technology Bombay	**Assistant Professor**	Remote sensing and GIS for agricultural and rural sector, digital agriculture and analytics, UAV and spatial planning

School of Buisness

YEAR OF ESTABLISHMENT OF THE SCHOOL: 2022

ACADEMIC PROGRAMMES OFFERED: MBA, Ph.D.

LABORATORY FACILITIES

***No. of Laboratories*:** 01 (Finance Laboratory)

Brief Introduction:

Finance Laboratory:

The Finance Laboratory in School of Business was set-up to undertake cutting edge research on financial markets using real time high frequency data. Here the students can apply their theoretical knowledge to real-world scenarios, thereby bridging the gap between academia and industry.

Presently the Laboratory is equipped with 31 workstations with SPSS (Statistical Package for Social Sciences) software installed in it. The state-of-the-art Lab is getting uninterrupted power supply from a 40 KVA Online UPS.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED (1 APRIL 2024 – 31 MARCH 2025):

Video Conferencing System: 01

40KVA Online UPS: 01

Computing Units: 11

Students Storage Units: 06

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT :

Hina, M., **Issac, A. C.,** Sithipolvanichgul, J., & Vaiman, V. (2025). Demystifying knowledge hiding and envisioning a synthesized theoretical perspective: an integrated review. *Journal of Knowledge Management* (ABDC-A)

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL

Sl. No.	Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
1	Dr. Abraham Cyril Issac	Academy of Management Conference	Chicago, IL	09.08.2024	International
2	Dr. Kuldeep Baishya	49th Eurasia Business and Economics Society Conference	Athens	16/10/2024 – 18/10/2024	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Sl. No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
1	Dr. Abraham Cyril Issac	Learning & Development in Organizations	C-DAC	Novotel, Guwahati	Dec 2024
2	Dr. Abraham Cyril Issac	Special Chief Guest for the 62nd KVS Foundation	Kendriya Vidyalaya, IIT Guwahati	Guwahati	Dec 2024
3	Dr. Abraham Cyril Issac	TED talk	Assam Downtown University	Guwahati	Nov 2024
4	Dr. Abraham Cyril Issac	Session on **Negotiation Skills** at **Advanced MDP** titled "**The Power of She**: **Women's Journey to Business Leadership**", sponsored by the **Ministry of MSME**	NIT Trichy	Tamil Nadu	Dec 2024
5	Dr. Abraham Cyril Issac	Mediation and Moderation at Two-Day National Level Online Workshop on Designing Effective Surveys	Centre for Data Analytics and Research	Chennai	Nov 2024
6	Dr. Abraham Cyril Issac	**Confronting the Shadows**: **Strategies for Resilient Teams**	Berchmans Institute of Management Studies (SB College Changanassery)	Kerala	Oct 2024
7	Dr. Abraham Cyril Issac	**Advanced Entrepreneurship Development Programme on** "**Handicraft - Entrepreneurship Development**	NIT Kurukshetra	Haryana	Jan 2025
8	Dr. Abraham Cyril Issac	The Human Element in Lean Construction: Driving Success Through People	Indian Lean Construction Conference	IIT Guwahati	Dec 2024
9	Dr. Abraham Cyril Issac	*Ethics in Public Services*: *Building Trust and Accountability*	Management Development Programme for the officers of **India Post**	IIT Guwahati	Jan 2025
10	Dr. Abraham Cyril Issac	E*thical and Legal Considerations of AI in Human Resource Management*	Ajay Kumar Garg Institute of Management	Ghaziabad	Feb 2025
11	Dr Pinosh Kumar Hajoary	Higher Education in India and Abroad	Cotton University/ Boro Literary Society	Cotton University	18/02/2025
12	Dr. Pinosh Kumar Hajoary	Career counselling cum Freshers	K.C Das Commerce College, Boro Literary Society	K.C DAS Commerce College, Guwahati	March,2025

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED (1 APRIL 2024– 31 MARCH 2025)

Sl. No.	Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International / National	No. of participants
1	Dr. Abraham Cyril Issac (Subject Matter Expert)	Negotiation Mastery	NPTEL+	09.11.24	International	50

2	Dr. Abraham Cyril Issac (Subject Matter Expert)	Extreme Leadership: Pushing Limits and Driving Change	NPTEL+	30.11.24	International	120
3	Dr. Abraham Cyril Issac (Subject Matter Expert)	Developing Junzi Personality	NPTEL+	15.03.25	International	60
4	Dr. Abraham Cyril Issac (Subject Matter Expert)	Paradoxical Safety Leadership	NPTEL+	04.04.25	International	50
5	Dr. Abraham Cyril Issac (Subject Matter Expert)	Labour Welfare and Industrial Relations (30 hrs course)	NPTEL	21.07.24	International	3400
6	Dr. Abraham Cyril Issac (Subject Matter Expert)	AI in Human Resource Management (30 hrs course)	NPTEL	20.01.25	International	27359
7	Dr. Abraham Cyril Issac (Subject Matter Expert)	Organizational Behaviour: Individual dynamics in Organization (30 hrs course)	NPTEL	20.01.25	International	8500
	Dr. Abraham Cyril Issac (Coordinator)	Skill Enhancement Workshop in Teaching and Research	SERB-INAE Collaborative Initiative in Engineering (Outreach Programs for NE, J&K and Ladakh),	February 28 - March 1, 2025	National	50

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
01	Dr. Abraham Cyril Issac	Indian Institute of Technology, Madras, and Swinburne University of Technology, Melbourne, Australia	Assistant Professor	Organizational Behavior
02	Dr. Kuldeep Baishya	Indian Institute of Management Shillong	Assistant Professor	Marketing Management, Marketing Research, Consumer Behavior, Capstone Simulation and Marketing Analytics
03	Dr. Pinosh Kumar Hajoary	Indian Institute of Science (IISc), Bangalore	Assistant Professor	Strategy, Circular Economy, Entrepreneurship, Policy, Tourism and Technology Management

Mehta Family School of Data Science and Artificial Intelligence

YEAR OF ESTABLISHMENT OF THE SCHOOL: 2021

ACADEMIC PROGRAMMES OFFERED:

- B.Tech
- B.Sc. (Honours)
- MTech in Data Science (Jointly with EEE and Mathematics Departments)
- PhD

LABORATORY FACILITIES:

B.Tech Project Lab : The School has a laboratory equipped with 30 high-end PCs for the final year B.Tech students to work on their projects.

MAJOR AREAS OF RESEARCH AND DEVELOPMENT:

• AI for Healthcare: Deep Learning & Machine Learning for Biomedical Data Inequality, Image Enhancement, Object Recognition in Medical Imaging, Semantic Segmentation, Biomedical Image Processing, Facial Animation & Anatomical Augmented Reality, Computational Imaging for Healthcare (HDR imaging, AR/VR applications)

• Audio/Neuro/Multimodal-AI: Signal Processing (Speech, Audio, EEG), Time–Frequency and AM–FM Modeling, Multimodal Representation Learning and AI, Neuro-AI & Human-Machine Intelligence, Eye Tracking, Face Tracking, Embedded AI Systems, Neuromorphic Computing, Computational Neuroscience

• Resource Allocation in Next-generation Wireless Communication Networks, Reinforcement Learning, Optimization and Control of Stochastic Systems, Markov Decision Processes, Multi-Armed Bandits, Reinforcement Learning for Resource Allocation, Application of RL in Wireless Communication, Stochastic Approximation Methods

• Statistical and Robust Signal Processing: Efficient Algorithms for Parameter Estimation in Signal Processing, Classical and Bayesian Estimation Techniques, Robust Parameter Estimation in Presence of Outliers, Statistical Modelling, Accelerated Life Testing, Competing Risks & Multicomponent Stress-Strength Reliability, Statistical Optimization

• Computer Vision and Graphics: Object Tracking and Localization, Stereo Reconstruction, Deepfake Detection (Multimodal), Image/Video Super-resolution, Multi-weather Image/Video

Restoration, Video Object Tracking, Recognition, and Segmentation, Computer Graphics and AR/VR Applications

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT:

1. Roy, Arghyadip, and Nilanjan Biswas. "Robust & Low-Complexity Task Scheduling Algorithms for a Mobile Edge Computing System." *IEEE Transactions on Green Communications and Networking* (2024).
2. Kumari, Abha, Arghyadip Roy, and Ashok Singh Sairam. "Optimizing SDN controller load balancing using online reinforcement learning." *IEEE Access* (2024).
3. Badireddi, Satyadev, Raunakk Banerjee, Parth Hiren Shah, and Arghyadip Roy. "Exploiting Bias in Reinforcement Learning for Task Allocation in a Mobile Edge Computing System." In *2024 International Conference on Signal Processing and Communications (SPCOM)*, pp. 1-5. IEEE, 2024.
4. Kumar, Ashim, Arghyadip Roy, and Ratnajit Bhattacharjee. "Actively Adaptive Multi-Armed Bandit Based Beam Tracking for mmWave MIMO Systems." In *2024 IEEE Wireless Communications and Networking Conference (WCNC)*, pp. 1-6. IEEE, 2024.
5. Mahto, A. K., Tripathi, Y. M., Dey, S., Alsaedi, B. S., Alhelali, M. H., Alghamdi, F. M., & Alshawarbeh, E. (2024). Bayesian estimation and prediction under progressive-stress accelerated life test for a log-logistic model. *Alexandria Engineering Journal*, *101*, 330-342.
6. Mahto, A. K., Tripathi, Y. M., Dey, S., Abd El-Raouf, M. M., & Alsadat, N. (2024). Efficient estimation of the density and distribution functions of Weibull-Burr XII distribution. *Alexandria Engineering Journal*, *104*, 576-586.
7. Singh, K., Tripathi, Y. M., Poonia, N., & Mahto, A. K. (2025). Bivariate unit inverse Weibull distribution with applications to multicomponent reliability. *Quality Technology & Quantitative Management*, 1-32.
8. Yvonne Christian, Amay Sanjay Redkar, Naveen Kumar, Shine Varghese Jancy, Aneesh Chandrasekharan, T R Santhoshkumar, Vibin Ramakrishnan. “Structural regression modelling of peptide based drug delivery vectors for targeted anti-cancer therapy”. Drug Delivery & Translational Research. https://pubmed.ncbi.nlm.nih.gov/39117921/

9. A. Agrawal, T. Sharma, and N. K. Verma, “A Comprehensive Exploration of Real-Time 3D View Reconstruction Methods”. *IEEE Transactions on Artificial Intelligence*, vol. 5, no. 12, pp. 5915-5927, Dec. 2024. https://ieeexplore.ieee.org/document/10713260

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CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL (1 APRIL 2024– 31 MARCH 2025)

Sl. No.	Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
01	Dr. Ayon Borthakur	IEEE BIOCAS 2024	Xi’an China	24/12/2024	International
02	Dr. Arghyadip Roy	Workshop on Beyond 5G Communications,	EEE Department, IIT Guwahati	17-18 January, 2025	National
	Dr. Arghyadip Roy	IEEE International Conference on Signal Processing and Communications (SPCOM)	IISc Bangalore	1-4 July 2024	International
03	Dr. Debanga Raj Neog	AI Summit 1.0	IIT Ropar	19/02/2025	National
04	Dr. Debanga Raj Neog	2024 IEEE Conference on	Singapore	25/06/2025	International

		Artificial Intelligence			
05	Dr. Debanga Raj Neog	LODESTAR (Low-cost Disaster & Emergency Services for Communities At Risk) Technical Meet	IISc Bangalore	14/02/2025	National
06	Dr. Neeraj Kumar Sharma	NVIDIA AI Summit	Mumbai	24-25 Oct. 2024	National
07	Kamal, Debanga Raj Neog, M K Bhuyan	9th International Conference on Computer Vision & Image Processing	IIITDM Kancheepuram	19-21 December 2024	International
08	Azal Ahmad Khan, Sayan Alam, Xinran Wang, Ahmad Faraz Khan, Debanga Raj Neog, Ali Anwar	2024 IEEE International Conference on Big Data (IEEE BigData 2024)	Stony Brook University, Washington DC, USA	15-18 December 2024	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD (1 APRIL 2024– 31 MARCH 2025)

Sl.No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
01	Dr. Arghyadip Roy	Task Allocation Algorithms for a Mobile Edge Computing System-	EEE Department, IIT Guwahati	Assam	17/01/2025

		A Machine Learning Perspective			
02	Dr. Arghyadip Roy	Reinforcement Learning	Workshop on Mathematical Foundations for AI and Machine Learning Applications, School of Advanced Sciences, VIT-AP University, Andhra Pradesh	Online	21/09/2024
	Dr. Arghyadip Roy	Adaptive Multi-armed Bandit Algorithms for Markovian and i.i.d Rewards	Centre for Networked Intelligence (CNI) seminar series, IISc Bangalore	Online	23/04/2024
05	Dr. Neeraj Kumar Sharma	Implementing R&D practices for creation and implementation of research projects	Assam Administrative Staff College, Khanapara, Guwahati	Assam	20/12/2024
6	Dr. Debanga Raj Neog	Deep Learning: Utility in Different Domains and Implementations	NERIM	Guwahati	03/03/2025
7	Dr. Debanga Raj Neog	Technology for Healthcare: Uniting for a Humanitarian Purpose	PanIIT World of Technology (PIWOT) Conference	Online	21/01/2025

8	Dr. Debanga Raj Neog	Building Academic Webpage with GitHub	Students' Academic Board (SAB), IIT Guwahati	Guwahati	11/01/2025
9	Dr. Debanga Raj Neog	Use of AI Tools in Creating Presentations	Assam Administrative Staff College	Guwahati	21/12/2024
10	Dr. Debanga Raj Neog	Generative AI in NLP and Computer Vision	Entrepreneurship and Skill Development Program, IIT Guwahati	Guwahati	22/11/2024
11	Dr. Debanga Raj Neog	Generative AI for Healthcare	IEEE CIS Uttar Pradesh Section Chapter	Online	20/11/2024
12	Dr. Debanga Raj Neog	Deep Learning in Resource-Constrained Devices	Implementing AI Solutions in Agriculture Seminar, IIT Guwahati	Guwahati	18/11/2024
13	Dr. Debanga Raj Neog	AI Solutions in Government School Session	Samagra Shiksha Abhiyan	Guwahati	16/11/2024
14	Dr. Debanga Raj Neog	AI Tools in Creating Presentations	Assam Administrative Staff College	Guwahati	29/10/2024
15	Dr. Debanga Raj Neog	Shared Vision for a Better World: SDG 9 - Achieving Industry, Innovation, and Infrastructure through AI	World Standards Day 2024	Guwahati	24/10/2024

16	Dr. Debanga Raj Neog	AI and Youth Engagement	Yuba Samaroh	Morigaon District	15/10/2024
17	Dr. Debanga Raj Neog	AI-based Human Pose Estimation and its Applications in Healthcare	AIIMS Guwahati	Guwahati	06/10/2024
18	Dr. Debanga Raj Neog	AI and Engineers' Day Celebration	Institution of Engineers (India), Assam State Centre	Guwahati	15/09/2024
19	Dr. Debanga Raj Neog	AI and Healthcare	Sri Sankaradeva Nethralaya, Assam	Guwahati	30/07/2024
20	Dr. Debanga Raj Neog	Transformers and NLP	Assam Don Bosco University	Guwahati	27/07/2024
21	Dr. Debanga Raj Neog	Ethics in AI and Data Science	Sherubtse College, Royal University of Bhutan	Online	06/06/2024
22	Dr. Debanga Raj Neog	AI and Healthcare	K.C Das Commerce College, Guwahati	Guwahati	10/05/2024
23	Dr. Debanga Raj Neog	Generative AI for Electronics and Communication Engineering	Department of Electronics and Communication Engineering, Assam Don Bosco University	Guwahati	06/04/2024

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks

01	Dr. Lyes Khacef	Senior Research Scientist, Sony (Switzerland)	Neuromorphic computing: low-latency and low-power sensing and processing with events and spikes	30/09/2024	xxx
02	Dr. Visar Berisha	Professor, Arizona State University (USA)	Working towards a pipeline for clinical speech AI that generalizes	16/09/2024	
03	Mr. Gautam Bhatia	Founder and Director, Revisual Labs (India)	Using interactivity as a tool for storytelling in data visualization	05/09/2024	
04	Mr. Arka Koner	UIDAI	AI in Biometrics – Solving billion-scale identity challenges in India	27/12/2024	
05	Dr. Hridoy Jyoti Mahanta	CSIR-NEIST	Machine Learning in Chemical Spaces	27/12/2024	
06	Dr. Sumedh Risbud	Intel Labs	Neuromorphic computing and Intel Loihi 2	27/12/2024	
07	Dr. Sriram Ganapaty	IISc Bangalore	Demystifying large language models for text, speech, and vision	28/12/2024	
08	Dr. Ujjal Kr. Dutta	Satsure Analytics	Understanding the earth from space with machine learning for social good	28/12/2024	
09	Prof. Parimal C. Bhattacharjee	Retd. Prof. Gauhati University	Wildlife of Northeast and conservation initatives	28/12/2024	
10	Prof. Semih Cayci	Assistant Professor, Department of Mathematics, RWTH	Recurrent Natural Policy Gradient for POMDPs	18/03/2025	

		Aachen University, Germany			

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
01	Dr. Neeraj Kumar Sharma	IIT Guwahati, Artificial Intelligence Confluence 2024	IIT Guwahati	27-28th Dec. 2024	National	200

AWARDS AND HONOURS

- Dr. Ayon Borthakur: Best Poster Award, 15th ML Symposium of the New York Academy of Sciences, NY, USA

STUDENTS' ACHIEVEMENTS

- Mr. Kamal, Best Student Paper Presentation Award, SCW 2025 (Smart City Workshop 2025)

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
01	Prof. Ratnajit Bhattacharjee	Jadavpur University, Kolkata	Professor EEE & Head, MFSDSAI	Microwave Engineering, Microstrip Antennas, Electromagnetics, Wireless Communication

02	Dr. Rhythm Grover	IIT Kanpur	Assistant Professor	Efficient Algorithms for parameter estimation of signal processing models, Statistical properties of classical parameter estimation methods, Robust methods of parameter estimation in presence of outliers in the data.
03	Dr. Teena Sharma	IIT Kanpur	Assistant Professor	Artificial Intelligence, Machine Learning, and Deep Learning Algorithms and their applications to Computer Vision: Object detection, Classification, Identification, Recognition, Image enhancement, Image matching; Equitable Precision Medicine: Transfer learning, Meta-learning, Few-shot learning; and Condition-based Monitoring: Fault diagnosis and remaining useful life prediction
04	Dr. Amulya Kumar Mahto	IIT Patna	Assistant Professor	Statistical Modelling, Accelerated Life Testing, Competing Risks, Multicomponent Stress-Strength Reliability, Statistical Optimization, Classical and Bayesian Estimation.
05	Dr. Arghyadip Roy	IIT Bombay	Assistant Professor	Optimization and Control of Stochastic Systems, Reinforcement Learning,

				Markov Decision Process, Multi-armed Bandit, Stochastic Approximation, Resource Allocation in Communication Networks, Application of Reinforcement learning in Wireless Communication.
06	Dr. Ayon Borthakur	Cornell University, US	Assistant Professor	Embedded AI systems, Deep learning, Neuromorphic computing, Computational neuroscience.
07	Dr. Chiranjib Sur	University of Florida, US	Assistant Professor	Deep Learning, NLP/NLU, Recommendation Systems for Multimedia, Image/Video Captioning, Story Telling, Questioning Answering, Translation, Visual Questioning Answering, Statistical Learning, Image to Image Transformation, Segmentation and Organ detection, Object Detection, Scene Understanding, Multi-Frame Prediction, Scalable Big Data Technologies
08	Dr. Debanga Raj Neog	Univ. British Columbia Vancouver, Canada	Assistant Professor	Machine learning and Deep Learning (Object tracking and localization, stereo reconstruction), Image Processing (Semantic segmentation, biomedical image processing), Computer

				Vision (Eye tracking, face tracking), Computer Graphics and AR/VR (Facial animation, anatomical augmented reality), Computational Imaging (High dynamic range imaging).
09	Dr. Neeraj Kumar Sharma	Indian Institute of Science, Bangalore, India	Assistant Professor	Multi-modal data science, machine learning, and artificial intelligence, Speech, Audio, EEG, and Wearable Signal Processing and ML, Rock structure analysis using imaging, wearables, and healthcare
10	Dr. Prashant W. Patil	IIT Ropar, India	Assistant Professor	Research interests: Computer Vision, Deep Learning, Multi-weather Image/Video Restoration, Video Object Segmentation, Single Image Depth Estimation, Image/Video Super-resolution, Video Object Tracking, Activity Recognition.

Associate Faculty of School

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
1	Prof. Girish Sampath Setlur	University of Illinois at Urbana Champaign, USA	Professor, Physics	Theoretical Condensed Matter Physics, Understanding and accounting for the

				properties of everyday bulk materials from a knowledge of the fundamental constituents of the substance and the fundamental physical laws governing those constituents.
2	Prof. Prabir Kumar Saha	IIT Madras, India	Professor, Chemistry	Process Modelling, Optimization and control, Membrane Based separation Process.
3	Dr. Arabin Kumar Dey	IIT Kanpur, India	Associate Professor, Mathematics	Distribution models and its applications, Statistics and Finance, Speech signal processing, Machine learning algorithms
4	Prof. Ashok Kumar Sairam	IIT Guwahati, India	Professor, Mathematics	Computer networks, network security, software defined networks, crowd sourcing techniques, and location based privacy.
5	Prof. Siddhartha Pratim Chakrabarty	University of Illinois at Chicago, Chicago, USA	Professor, Mathematics	Mathematical Finance - computational aspects of pricing, sustainable (green) finance, portfolio theory, financial risk management, actuarial mathematics and data science, and Mathematical Biology - deterministic,

				stochastic and control theoretic approaches, in modelling of biological phenomenon.
6	Prof. Vibin Ramakrishnan	IIT Bombay, India	Professor, Biosciences & Bioengineering	Understanding the efficacy and mode of action of drugs, design & development of advanced materials
7	Prof. Ashish Anand	NTU, Singapore	Professor, CSE	Natural Language Processing (NLP), Biomedical Text Mining, Computational Biology, Deep Learning
8	Prof. Sanasam Ranbir Singh	IIT Madras, India	Professor, CSE	Information Retrieval, Web Mining, Complex network analysis, Social Computing, Machine Learning and Data Mining on Social Media Data, (Multi-Lingual) Natural Language Processing
9	Dr. Gaurav Trivedi	IIT Bombay, India	Associate Professor, EEE	Circuit Simulation (Analog, RF & Digital) and VLSI CAD, Electronics System Design, Computer Architecture, Semiconductor Devices, Hardware Security, Embedded Systems and

				IoT, High Performance Computing, Large Scale Optimization and Machine Learning.
10	Dr. Hanumant Singh Shekhawat	University of Twente, Netherlands	Assistant Professor, EEE	Machine learning, System Theory, Applied Mathematics, Healthcare, & Signal Processing.
11	Prof. Manas K. Bhuyan	IIT Guwahati, India	Professor, EEE	Machine Learning and Artificial Intelligence, Image/Video Processing, Computer Vision, Human Computer Interactions (HCI), Virtual Reality & Augmented Reality, and Biomedical Signal Processing.
12	Dr. Suresh Sundaram	IISc Bangalore, India	Associate Professor, EEE	Pattern recognition, Image/ Video Processing and Computer Vision.
13	Prof. Shyamanta M. Hazarika	University of Leeds, England	Professor, Mechanical	Cognitive Systems, Knowledge Representation and Reasoning, Artificial Intelligence, Biomimetic Robotics, Machine Learning, Robotic Neurorehabilation.

14	Dr. Ribhu Chopra	IIT Roorkee, India	Assistant Professor, EEE	Signal Processing for wireless communications, Statistical Signal Processing, Detection and Estimation, Federated Learning, Wireless for Machine Learning.

School of Energy Science and Engineering

Year of Establishment:

The School of Energy Science and Engineering (SESE), renamed from Centre for Energy in April 2021, aims to address the National Education Policy (NEP) and connect technology development to training and grassroots outreach in order to address specific Sustainable Development Goals (SDGs), with a primary focus on Quality Education, Affordable Clean Energy, Sustainable Cities and Communities, Climate Action, and Partnership for the Goals. The school foresees providing multidisciplinary integrated education across different disciplines to bridge gaps amongst Academia, Humanities, Science, Engineering, Economics, Management, and Policymaking by introducing interdisciplinary programs. The school endeavours to enhance its outreach efforts through short-term training programs, entrepreneurship promotion workshops and translational research initiatives.

Academic Programmes Offered: [a] PhD, [b] MS by Research [c] B.Tech. in Energy Engineering

LABORATORY FACILITIES:

No. of Laboratories: Research: 13 (PG), Instructional: 4 (UG), Project: 1, Computer Centre & Simulation Laboratory: 1

Brief Description

RESEARCH LABORATORIES

[i] Analytical Laboratory: Centre for Energy houses a proper state of the art analytical set-up for quantitative as well as qualitative analysis of samples like biomass and biofuels. 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, etc. The laboratory is equipped with Gas Chromatograph (GC), Thermo-Gravimetric Analyzer (TGA), Differential Scanning Calorimetry (DSC), High Performance Liquid Chromatograph (HPLC), Oxygen bomb calorimeter, Vacuum rotary evaporator, Lyophilizer 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); Ultra Sound enhanced conversion of sugars to fuels and chemicals; Glycerol bioconversion to various value added product (1, 3-Propanediol, DHA); Biohydrogen production. Development of facilities for studying the conversion of methane to methanol and other value added products are underway.

[iii] Fuel Cell 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. Some significant achievements of this lab are identification of novel signal forms in biofuel cell for detection of alcohol and Cyanobacteria based microbial fuel cells for dye degradation and power production. Facilities available in this laboratory are: Fabrication and characterization of bioelectrodes for biofuelcell and biosensors applications, Facility for development and characterization of composite proton exchange membranes for fuel cell applications, Table top spin coating unit, Potentiostat for cyclic voltametric study, amperometric study and other electrochemical measurements.

[iv] Energy Efficiency Laboratory: Some of the facilities available in this laboratory are Fuel testing equipment (calorific value and viscosity), equipment for proximate analysis, anemometer, pump testing setup, biomass gasification unit, flue gas analyzer, GC for biogas analysis, natural convection grain drier, 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.

[v] Bio-energy Laboratory: 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 micro-propagation 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.

[vi] Solar Energy Laboratory: 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; solar simulator; 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 hetero junction solar cells based amorphous and microcrystalline silicon is also available in collaboration with Physics department.

[vii] Process Development Laboratory: This laboratory has been developed at the Technology Complex (TC) to house the noisy, rugged and robust equipment. The major facilities in Process Development Lab are Gasification units (both Downdraft & Fluidized Bed), IC Engines setup, Battery testing facility, 1KW Solar wind hybrid system, Pump testing setup, and Gas to Liquid conversion setup. Some of the equipment available are Gas analyzer, Pelletizer, Gas Chromatograph, Fibre analysis system, etc.

[viii] Internal Combustion Engine Laboratory: This laboratory is located at Technology Complex and houses facility for testing of various alternative fuels for modifying and developing petrol and diesel engines.

[ix] Energy Conversion Laboratory: This laboratory is housed in Technology Complex wherein research facilities for fuel cell testing, energy storage setup (both battery and compressed air energy storage) and indoor solar testing setups are available.

[x] Printed Electronics and Emerging Technology Laboratory: The lab focuses on developing functional nanomaterials for energy storage and fabrication of printed electronic devices and IoT enabled sensors. Development of AI and machine learning tools for energy generation and distribution.

[xi] Sustainable Biofuel Laboratory, SESE, Technological Complex: Research work focus on biofuel production from lignocellulosic agriculture wastes.

Apart from these two new laboratories**, the Advanced Clean Energy System Laboratory** and **the Smart Microgrid Laboratory** are in the developing stage now envisioned to support research and teaching in the relevant areas.

INSTRUCTIONAL LABORATORIES

Four instructional laboratories have been established for the B.Tech. programme:

- **Thermo-Fluid and Heat Transfer Laboratory:** Houses numerous equipment to support B.Tech laboratory course structure related to Thermo-Fluid and Heat Transfer**.** The experimental facilities currently available in the laboratory are- Bernoulli's Theorem Proof, Boiling and Condensation, Convective Heat Transfer Experiment, Determination of Stefan Boltzmann's Constant, Determination of Thermal Conductivity of a Composite Wall, Hydraulic Coefficient of Venturimeter, Orificemeter and Pitot Tube, Investigation of Performance Characteristics of a 2-Stage Air Compressor, Reynold's Number Determination, and Vapour Compression Refrigeration Cycle.

- **Energy Materials and Device Fabrication Laboratory:** This B.Tech laboratory aims to give new knowledge to B.Tech on emerging areas of energy storage and conversion devices. Experimental facilities currently established are: Fabrication of nano materials for energy storage and conversion, Fuel-cell to study the kinetics and thermodynamics, Battery Thermal Management Systems, and Assembly and Study of Electrolyzer.

- **Solar & Wind Laboratory:** Houses numerous equipment to support B.Tech laboratory course structure related to Solar & Wind Laboratory. The experimental facilities currently available in the laboratory are- DC-DC Bidirectional Converter, Buck Converter, Regulated DC Power Supply, MPPT Boost Converter, Grid Connected Inverter, Grid Connected Solar PV System, DFIG Based Wind Energy Conversion System, and SYNDEM Smart Grid Kit.

- **Fuel & Combustion Laboratory:** This laboratory has been recently established to support the B.Tech laboratory course structure related to Fuel & Combustion. It houses various facilities to support experiments related to fuel & combustion such as, bomb calorimeter, flash and fire point apparatus, cloud point and pour point apparatus, aniline point apparatus, redwood viscometer, transesterification set up, facility for Reid vapour pressure test etc.

PROJECT LABORATORY

Biogas Development and Training Centre (BDTC) is in project mode, funded by the Ministry of New and Renewable Energy (MNRE), New Delhi for implementation of Biogas Programme under the Umbrella scheme of National Bio Energy Programme. The centre is involved with activities such as: Training & motivation to different categories for popularization of biogas utilization, Creation of a cadre of turnkey workers/private entrepreneurs in rural areas for setting up of biogas plants on turnkey basis and providing post installation servicing of plants as a self-employed vocation, Creation of a cadre of masons and technician skilled in the construction and maintenance of biogas plants, Awareness generation amongst state level policy makers, administrators and planners about the national importance and promotion of biogas technology in rural areas, Field survey of existing biogas digesters in NE region and create a data base, R&D in the field of biogas technology, Serving as forum of exchange of field orientation information and experiences among senior District level functionaries, Coordinating among various agencies and organizations including the State Nodal Agencies, which are directly involved in the implementation of biogas programme, providing consultancy services to manufacturers, NGOs etc. for developing and testing of new systems, and Installation of biogas digesters at subsidized rates , as per MNRE subsidy rate.

COMPUTER CENTRE & SIMULATION LABORATORY

This laboratory has been established primarily for the BTech students; however, the research scholars and master's students also have access to the laboratory for their computational and simulation work. Currently, software such as SimaPro, Polysun, Comsol, and Engineering Equation Solver (EES) are available for the students to access.

Major Equipment and Facilities acquired during 1 April 2024 – 31 March 2025:

During the current financial year an FTIR spectrophotometer of make PerkinElmer and model SPECTRUM TWO FTIR SYSTEM has been procured. Fourier Transform Infrared (FTIR) spectrophotometry is a powerful analytical technique used widely in energy science and engineering for characterizing materials, monitoring reactions, and studying chemical processes.

Major Areas of Research and Development:

Clean Energy Technology (Fluidized bed technology, thermochemical and biochemical conversion of biomass), Energy Storage (Thermal, Compressed Air, and Li-ion battery), Integration of Renewable Energy Devices, Thermal management of PVT, Energy Management, Solar Photovoltaics, 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, Methane to methanol by Bio-GTL route, Combustion and energy efficiency of systems, Sustainable biofuel, Bio-energy and Green Engineering, Bio-mass gasification, Energy Conservation and Renewable Energy, Solar energy conversion, Microgrid Power Management system, Energy storage and Printed Electronic devices, Wind energy for localized power generation,

Biofuel performance in internal combustion engines, Molecular Biology, Protein Engineering, Structural and Functional studies of Carbohydrate active enzymes and their application bioethanol production from lignocellulosic agriculture wastes, AI/ML based predictive modeling for Energy generation and distribution, Amorphous and nanocrystalline semiconductors, Thin film and Heterojunction solar cells, Perovskite solar cells, Graphene, transition metal dichalcogenides and transition metal oxides,2D materials, Electrical Energy and Power Engineering, Microgrids' Operation and Control, Model Predictive Control, Modeling and Control of Power Electronics Converters and Inverters, Renewable Energy Grid Integration, Grid-forming Converters with Fuel cell and Hydrogen Storage, Hybrid Energy Storages, Power/Energy Management System, Power to Gas Systems, Machine Learning and Electric Vehicle, Wind Energy Technology, Impact Energy Absorbing Materials etc.

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MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT:

Low cost, high yielding C-phycocyanin production from cyanobacteria technology developed during PhD thesis work has been successfully transferred to Industry (KN Biosciences India Pvt. Ltd, Hyderabad). An MoU for Transfer of Technology (ToT) has been signed between IITG and KN Biosciences India Pvt. Ltd. on 18 February 2025.

Inventors: Prof. Debasish Das, John Kiran Katari

(https://www.iitg.ac.in/iitg_press_details?p=170/iit-guwahati-signs-technology-transfer-mou-for-low-cost-high-yield-c-phycocyanin-production-technology)

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL

Sl. No.	Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
1.	Dr. Pankaj Kalita	Conference on Sustainable Development of Energy, Water and Environment Systems	Rome, Italy	September 8-12, 2024	International
2.	Prof. Arun Goyal	Research & Industrial Conclave – Integration'24.	IIT Guwahati, Assam, India.	August 9-11, 2024.	National
3.		Research & Industrial Conclave – Integration'24.	IIT Guwahati, Assam, India.	August 9-11, 2024.	National
4.		Research & Industrial Conclave – Integration'24.	IIT Guwahati, Assam, India.	August 9-11, 2024.	National
5.		Advanced Bioprocessing Technologies for Biomass Conversion (IBA2024).	Hong Kong SAR, P.R. China	December 1-4, 2024	International
6.		International Carbohydrate Conference (CARBO-XXXVIII) on Emerging Trends in Glycochemistry, Glycobiology & Technology.	Gauhati University, Assam, India.	December 04-06, 2024.	International
7.		IX International Conference on Sustainable Energy and Environmental Challenges (IX SEEC)	IIT Mandi, Himachal Pradesh, India.	December 13-15, 2024.	International
8.		IX International Conference on Sustainable Energy and Environmental Challenges (IX SEEC)	IIT Mandi, Himachal Pradesh, India.	December 13-15, 2024.	International
9.		Advances in Sustainable Solutions for Energy Transitions (ASSET-24)	IIT Guwahati, Assam, India.	January 02-04, 2025	International
10.	Prof Pratima Agarwal	International Conference on Energy and Environmental Materials (E2M-2024),	IIT Indore	July 11-13, 2024,	International

11.		International Conference on Semiconductor Technologies-Materials to Chips (ICST-2024)	Amity University, Noida, UP (Online)	September 18-20, 2024	International
12.	Prof. Niranjan Sahoo	8TH National Symposium on Shock Waves	IIT Kanpur	November 12-15, 2024	National
13.		Wonders of Control Engineering via Drone Flying and Electric Vehicles	Centurion University of Technology and Management, Bhubaneswar	December 16-18, 2024	National
14.	Dr. E S N Raju P	23rd National Power Systems Conference (NPSC 2024)	IIT Indore, Indore, India	December 14-16, 2024	National
15.		RT24 India Conference	Bengaluru, Karnataka 560043	17th and 18th of December 2024	National
16.		India Energy Week (IEW) 2025	Yashobhoomi Convention Centre, New Delhi	February 11 to 14, 2025	International
17.	Dr. Farrukh Khalid	International Conference on Engineering Challenges in Global Sustainable Development (ICECGSD) (Session Chair)	Online	January 31, 2025	International
18.		India Energy Week 2025 (Special Invitee)	New Delhi	February 11-14, 2025	International
19.	Dr. Saket Verma	Green Energy and Sustainable Development	BITS Pilani, R.J., India	September 26-28, 2024	International
20.		International conference on Greener Technologies in Mechanical engineering (ICGTME-2025)	BITS Pilani, R.J., India	February 3– 5, 2025	International
21.	Dr. Kuldeep Kumar	Green Energy and Sustainable Development	BITS Pilani, R.J., India	September 26-28, 2024	International
22.		Entrepreneurship promotion in the areas of artificial intelligence and machine learning advancements in the energy sector, Entrepreneurship and Skill Development Program	IIT Guwahati	November 22, 2024	National

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD (1 APRIL 2024– 31 MARCH 2025)

Sl.No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
1.	Prof. Ujjwal K. Saha	Publishing Research Papers in Energy	ASSET 2025	IIT Guwahati	January 2, 2025
2.		Publishing in ASME Journals: An Authors' Workshop	ASME	Online	December 2, 2024
3.		Rules of Everyday Writing	CICPS-CET Certificate Course in Drone Training Program	IIT Guwahati	November 21, 2024
4.		How to Publish in ASME Journals	NERIST	Nirjuli, Arunachal Pradesh	November 14, 2024

Sl.No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
5.		Aviation Through the Ages	CICPS-CET Certificate Course in Drone Training Program	IIT Guwahati	October 24, 2024
6.		History of Indian Space Travel	CICPS-CET Certificate Course in Drone Training Program	IIT Guwahati	October 17, 2024
7.		Small Wind and Hydro Power Systems	EEI (Southern Region), Hyderabad	Online	September 11, 2024
8.		Mastering Technical Writing	NERIST	Nirjuli, Arunachal Pradesh	August 31, 2024
9.		Chandrayaan 3: India's Path to the Moon	NERIST	Nirjuli, Arunachal Pradesh	August 30, 2024
10.		Social Benefits of Spacecraft and Satellites, National Space Day Lecture	NIT Meghalaya	Shillong, Meghalaya	August 23, 2024
11.		How to Write a Research Paper	SRM University, Chennai	Chennai	August 16, 2024
12.		Writing and Publishing a Scientific Paper	NIT Mizoram, Aizwal	Online	August 08, 2024
13.		Zero-head Turbines for Power Generation	NIT Mizoram, Aizwal	Online	August 08, 2024
14.		Strategies of Thesis Writing	NIT Meghalaya	Shillong, Meghalaya	July 10, 2024
15.		Field Testing of Hydrokinetic Turbines, Keynote Lecture	IIT Roorkee	Online	July 06, 2024
16.		Wind Tunnel Research	IIT (ISM) Dhanbad	Dhanbad	June 17, 2024
17.		Effective Presentation Skills	Tezpur University	Tezpur, Assam	May 30, 2024
18.		Craft of Thesis Writing	NIT Silchar	Silchar, Assam	May 02, 2024
19.		Aerospace Vehicles: A General Overview	IIT Guwahati	Guwahati	April 20, 2024
20.		How to Write a Good Project Report	IIT Guwahati	Guwahati	April 10, 2024
21.		Rockets and Missiles of India	Nowgong Polytechnic	Nagaon, Assam	April 05, 2024
22.		Gas Turbine Propulsion and Power	Nowgong Polytechnic	Nagaon, Assam	April 04, 2024
23.	Dr. Pankaj Kalita	Emerging Clean Energy Technologies for Sustainable Future	School of Mechanical Engineering, KIIT Deemed to be University	Bhubaneswar	July 25, 2024
24.		Indian Traditional Knowledge Systems	National Institute of Technology Meghalaya	Sohra (Cherrapunji)	November 15-16, 2024
25.		Instruments in Solar Energy	Department of Mechanical Engineering NIT Patna	Patna	February 17–22, 2025
26.		Fuel cell Technology and its advances	Department of Chemical Engineering, IIT Guwahati	Guwahati	March 17, 2025
27.	Prof Pratima Agarwal	"Challenges in Dopant free c-Si heterojunction solar cells" (Key note lecture)	IIT Indore	Indore	July 12 2024

Sl.No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
28.		"Solar PV technology and current trends in Research & Development"	National Power Training Institute, Guwahati	Guwahati	September 24, 2024
29.		"Dopant free Carrier Selective Layers in c-Si Based Heterojunction Solar Cells"	Amity University (Online)	Noida UP	September 18, 2024
30.		"Solar PV technology and Latest developments"	National Power Training Institute, Guwahati	Guwahati	November 19, 2024
31.	Prof. Niranjan Sahoo	Boundary layer transition experiment in a supersonic flight	Indian Institute of Science	Bengaluru	December 09, 2024
32.		Measurement Diagnostics for Hypersonic Shock Tunnels	Centre for Advanced System (CAS), DRDO	Hyderabad	December 23, 2024
33.		Harnessing Wind Power for Sustainable Energy Generation – A Vertical Axis Wind Turbine Perspective	School of Energy Science and Engineering, IIT Guwahati	Guwahati	January 02-04, 2025
34.	Prof. Arun Goyal	Green bioethanol production from delignified rice straw using statistically designed crude recombinant enzyme cocktail	IX International Conference on Sustainable Energy and Environmental Challenges (IX SEEC), IIT Mandi, Himachal Pradesh, India.	IIT Mandi, Himachal Pradesh, India.	December 13 – 15, 2024
35.	Dr. E S N Raju P	Delivered invited talk in Five Day Online Faculty Development Program on Advanced Power Electronics and Intelligent Optimization Techniques for Electric Vehicles.	Department of Electrical and Electronics Engineering, Avanthi Institute of Engineering & Technology (Autonomous), India,	Visakhapatnam (AP), India	October 25-29, 2024
36.	Dr. E S N Raju P	Delivered invited talk in Online Faculty Development Program (FDP) on "Electric Vehicles and Energy Storage Systems: Recent Trends and Future Prospects	National Institute of Technology Patna	Patna (Bihar), India	January 27 – 31, 2025.
37.	Dr. Farrukh Khalid	Sustainable Hydrogen Energy based System for Polygeneration	NIT Hamirpur	Online	May 31, 2024
38.		Near to Zero Emission for Climate Resilient Agriculture	ICAR-Agricultural Technology Application Research Institute (ATARI), Guwahati	NEDFi Convention Centre, Guwahati	July 30, 2024
39.		Hydrogen Production through Thermochemical Cycles	Department of Ocean Engineering, IIT Madras	Chennai	January 15, 25
40.		Hydrogen Production from Nuclear and Renewable Sources	PSN College of Engineering And Technology Melathediyoor - 627 152 Tirunelveli District, Tamil Nadu, India	Online	January 31, 2025
41.	Dr. Saket Verma	Battery Pack Design, BSM and BTMS in the Electric Vehicles	National Institute of Technology Hamirpur Department of Electrical Engineering	Hamirpur	November 13, 2024
42.		Design of Hybrid Battery Thermal Management System for Electric Two Wheelers	Kalasalingam Academy of Research and Education, (KARE)	Krishnankoil, Tamilnadu	December 9, 2024

Sl.No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
43.		Design and Monitoring of Hybrid Battery Thermal Management System (HBTMS) for Electric Two Wheelers	National Institute of Technology, Patna	Patna, Bihar	February 20, 2025

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks
1	Dr. Swati Sharma	School of Mechanical and Materials Engineering, Indian Institute of Technology Mandi	Carbon Materials in Energy Engineering	24/01/2025	--
2	Dr.-Ing Detlev Markus	PTB, Braunschweig, Germany	GIAN course on Combustion Theory and Applications	November 25 - December 6, 2024	--
3	Mr. Anand S. Subramaniam	ARAI, Pune	Visited Smart Microgrid Lab at SESE as part of MoA formalities with IITG	18-03-2025	--

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	**Patron:** Prof. Devendra Jalihal, Director, IITG **Chairperson and Convenor:** Prof. Vaibhav V. Goud, Professor, Head, SESE **Co-Convenor:** Dr. Pankaj Kalita, Associate Professor, SESE	International Conference On Advances In Sustainable Solutions For Energy Transitions (ASSET-2025)	ANRF, DSIR, NEC, BCPL and Ishita Biotech	January, 02 – 04, 2025	International	200
2	Dr. Pankaj Kalita (Course Co-ordinator)	GIAN course on Advances in Solar Collector Technologies from.	Govt. of India for Higher Education, MoE	March 03-07, 2025	International	75
3	Prof. Niranjan Sahoo	GIAN Course on Combustion Theory and Application	MHRD	25 November - 06 December 2024		30
4	Prof. Vaibhav V. Goud, Professor, Head, SESE	Entrepreneurship Awareness Programme (EAP), Bhattadev University	MSME	February 8, 2025		50
5		Entrepreneurship Awareness Programme (EAP), Gauhati University Institute of Science and Technology (GUIST), Gopinath Bardoloi Nagar: Guwahati-781014		February 12, 2025	Regional	50

Sl. No.	Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
6		Entrepreneurship Awareness Programme (EAP), Assam Engineering College Rd, Jalukbari, Guwahati, Assam 781013	MSME	February 14, 2025	Regional	50
7		Entrepreneurship Awareness Programme (EAP), Ranibari		February 17, 2025	Regional	50
8		Entrepreneurship Awareness Programme (EAP), Cotton University, Panbazar, Guwahati- 781001 Assam, India		February 18, 2025	Regional	50
9		Entrepreneurship Awareness Programme (EAP), Barama College		February 22, 2025	Regional	50
10		Advanced Entrepreneurship and Skill Development Program on Agripreneurship, Daffodil Group of Institutions, Khetri		February 24-28, 2025	Regional	35
11		Entrepreneurship Awareness Programme (EAP), Bijni, Town Ward No. 3, Chirang District, Assam		March 1, 2025	Regional	50
12		Entrepreneurship Awareness Programme (EAP), Near Assam State Zoo-cum-Botanical Garden, Zoo Road, Japorigog, Guwahati, Assam Pin - 781005		March 10, 2025	Regional	50
13		Entrepreneurship Awareness Programme (EAP), IIT Guwahati		March 10, 2025	Regional	50
14		Entrepreneurship Awareness Programme (EAP), B.P. Chaliha College,Nagarbera, Kamrup		March 18, 2025	Regional	50
15	Dr. Pankaj Kalita	Research and Industrial Conclave 2024(RIC2024)	MoE	August 09-11, 2024	International	200
17		Two days' workshop on "Progresses in Gasification Technology (PGT2024)	CRG (Grant No: CRG/2021/005262)	December 19-20, 2024	National	28
18		Internship cum Summer School program		June 11 to July 10, 2024	National	22

AWARDS AND HONOURS (1 APRIL 2024– 31 MARCH 2025)

- Prof. Ujjwal K. Saha: Certificate of Instruction, ASME
- Prof. Arun Goyal: Elected Fellow, (FSEES), International Society of Energy, Environment and Sustainability (ISEES)
- Dr. Farrukh Khalid: Young Editorial Board Member, E-prime Journal, Elsevier
- Dr. E S N Raju P: IEEE Senior Member, IEEE Society

STUDENTS' ACHIEVEMENTS

- Mr. John Kiran Katari: Technology Transfer to Industry, KN Biosciences India Pvt. Ltd. on 18 February 2025.
- Ms. Kakali Borah: Best Oral Presenter (2024), IIT Guwahati
- Ms. Aishwarya: Best Oral Presentation, IX International Conference on Sustainable Energy and Environmental Challenges (IX SEEC) December 13-15, 2024, IIT Mandi, Himachal Pradesh, India.
- Mr. Kamaksh Gurjar, Mr. Sharat Chandra, Mr. Prachurjya Jyoti Hazarika, and Mr. Shivam Raj: Runner-up Position in the Pan India IITs Hackathon on Renewable Energy, Federation of Indian Petroleum Industry (FIPI)
- Mr. Debarshi Baruah: Best poster, Research and Industrial Conclave 2024
- Mr. Amit Kumar: Best Poster, IIT Kanpur
- Mr. Yashkumar Jitendrabhai Parekh: Dr. Ramamoorthy Best Paper Award in Power Electronics, 23rd National Power Systems Conference (NPSC 2024)
- Mr. Siddhartha: Best Oral Presenter (Online), International Conference on Environmental Challenges, Opportunities, and Sustainable Solutions: Environment 2024
- Ms. Siddhi: 1st position in the Design Thinking project at the WiSH (Women in Semiconductor and Hardware),Texas Instruments

FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
CORE FACULTY MEMBERS				
1.	Ajay Singh	Technical University of Munich, Germany	Assistant Professor	Solar Photovoltaics and Organic Electronics. Fabrication and characterization of Perovskite Solar Cells, Dye-sensitized Solar Cells, Organic Solar Cells and Tandem Solar Cells. Numerical modeling of Solar Cells, LEDs, Transistors and Thermoelectric Nanowires.
2.	E S N Raju P	Indian Institute of Technology Indore	Assistant Professor	Smart grid; Microgrid; Grid integration of renewable energy sources (solar power, wind power, etc) energy storage, and flexible loads; Different topologies and control algorithms of power electronic converters; Power electronics applications to power systems; Application of

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
				optimization/artificial intelligence techniques to power systems/micro-grids; PMUs/µPMUs applications to power systems/micro-grids ; EV Charging infrastructure
3.	Farrukh Khalid	Ontario Tech University, Oshawa, Ontario, Canada	Assistant Professor	Applied Thermodynamics, Hydrogen Production using Thermochemical cycles and Renewable, Exergy Analysis, Sustainable Energy Systems, Waste Management, High Temperature Electrolysis, Nuclear Desalination, Green Buildings, Multi-generation Systems, Solar Desalination
4.	Kuldeep Kumar	Indian Institute of Technology Delhi	Assistant Professor	Electrical Energy and Power Engineering, Microgrids' Operation and Control, Model Predictive Control, Modeling and Control of Power Electronics Converters and Inverters, Renewable Energy Grid Integration, Grid-forming Converters with Fuel cell and Hydrogen Storage, Hybrid Energy Storages, Power/Energy Management System, Power to Gas Systems, Solar Photovoltaic, Machine Learning and Electric Vehicle.
5.	Pankaj Kalita	Indian Institute of Technology Guwahati	Associate Professor	Clean Energy Technologies, Solar Thermal, Energy Storage
6.	Ranjith Thangavel (**On Lien**)	Chonnam National University, South Korea	Assistant Professor	Energy Storage and Conversion, Lithium/Sodium-ion Batteries, Supercapacitors, Electrocatalysis, Electric Vehicles, Battery Management System, Solar Cells, Fuel-cells, Hydrogen Production and Storage
7.	Saket Verma	IIT Delhi	Assistant Professor	Hydrogen fuel cell, Thermal management, Thermal Energy Storage, Heating and Cooling of Buildings, Alternative fuel technology, Unconventional engines, and Applied thermodynamics
ADJUNCT FACULTY MEMBERS				
8.	Arun Goyal	Indian Institute of Technology Kanpur	Professor, Department of Biosciences and Bioengineering	Molecular Biology, Protein Engineering, Bioethanol
9.	Kaustubha Mohanty	Indian Institute of Technology Kharagpur	Head,School of Energy Science and Engineering & Professor, Department	Biofuels (bio-diesel, bio-ethanol and bio-Hydrogen), Utilisationof Lignocellulosic Biomass for Fuel Production.

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
			of Chemical Engineering	
10.	Mahuya De	-	Professor, Department of Chemical Engineering	Catalysis and reaction engineering, adsorption, hydrocarbon processing
11.	S. Senthilmurugan	Indian Institute of Technology Delhi	Professor, Department of Chemical Engineering	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
12.	Vijay S Moholkar	University of Twente, Netherlands	Professor, Department of Chemical Engineering	Thermochemical and biochemical conversion of biomass for synthesis of green gaseous and liquid fuels, 3G biofuels, conversion of waste to value added products, synthesis of functional polymer and bionanocomposites
13.	V. V. Goud	Indian Institute of Technology Kharagpur	Professor, Department of Chemical Engineering	Bio-energy; Biolubricant, Heterogeneous Reactions, Utilisation of Lignocellulosic Biomass for Production of Fuel/Chemicals, Application of Supercritical Fluids, Wastewater Treatment
ASSOCIATED FACULTY MEMBERS				
14.	D. Das	Indian Institute of Technology Bombay	Professor, Department of Biosciences and Bioengineering	Metabolic engineering, Biochemical engineering, Modelling of fermentation process, Biofuel
15.	H.B. Nemade	Indian Institute of Technology Bombay	Professor, Department of Electronics and Electrical Engineering	Electronic instrumentation, Systems design, Ultrasonic instrumentation, Non-destructive testing, Electronic product design, EMI/EMC issues, Acoustic sensors, Underwater acoustics, Surface acoustic wave devices, MEMS
16.	K. Kalita	University of Nottingham, U.K	Professor, Department of Mechanical Engineering	Rotordynamics, Coupled Dynamics of Electro-Mechanical Systems, Vibration
17.	L. Sahoo	MDU, Rohtak	Professor, Department of Biotechnology	Genetic engineering and functional genomics of plants
18.	N. Sahoo	Indian Institute of Science, Bangalore	Professor, Department of Mechanical Engineering	Fluid and Thermal Engineering, Aerodynamics, Gas Dynamics, Instrumentation, Measurements and Experiments in Fluid

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
19.	P. Agarwal	Indian Institute of Technology Kanpur	Professor, Department of Physics	Amorphous and nano-crystalline semiconductor thin films solar cells, perovskite solar cells, heterojunction solar cells and other devices
20.	P. Goswami	Gauhati University	Professor (HAG),Department of Biosciences and Bioengineering	Biosensors and Biofuel cells
21.	R. Anandalakshmi	Indian Institute of Technology Madras	Associate Professor, Department of Chemical Engineering	Computational Heat Transfer and Fluid Flow, Process Modeling and Simulation, Solar Thermal Energy Conversion, Energy Efficient Design of Thermal Systems, Microwave Assisted Food and Material Processing, Food Packaging and Preservation, Refrigeration and Air-conditioning Systems
22.	S. K. Nayak	Indian Institute of Science, Bangalore	Associate Professor, Department of Electronics and Electrical Engineering	Power flow analysis in AC and DC traction power system, Electromagnetics, Lightning interaction with an electrical and mechanical system, High Voltage Engineering
23.	U. K. Saha	Indian Institute of Technology Bombay	Professor, Department of Mechanical Engineering	Turbomachinery, Jet Propulsion, Internal Combustion Engines and Wind Energy
24.	V. Kulkarni	-	Professor, Department of Mechanical Engineering	High enthalpy flows, scramjet engine, experimental, aerodynamics, measurement science, CFD simulations
HONORARAY FACULTY MEMBERS (INDIA)				
25.	Prof. S.C. Sharma	Mysore University	Director, NAAC, Bangalore	Photoluminescence of Nanophosphors, Photoluminescence, Thermoluminescence, Photocatalytic Studies of Radioactive Nanomaterials, Sensors for Phenolic Compounds, Hydroquinone, Melamine, Dopamine, Paracetamol, Folic Acid etc., Display, Dosimetry and Advanced Forensic Applications of Nanomaterials
HONORARAY FACULTY MEMBERS (FOREIGN)				
26.	Prof Irini Angelidaki	Technical University of Denmark	Professor	Biofuels (biogas, biohydrogen, bioethanol) production, Microbial Electrochemistry, Algae as Bioresource and Biorefineries, Optimization of the Anaerobic Processes and Development of

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
				Sustainable Solutions for Organic Waste and Wastewater Treatment
27.	Prof Soteris Kalogirou	Cyprus University of Technology	Professor	Solar Thermal Collectors, Hybrid Photovoltaic/Thermal Systems, Artificial Intelligence Techniques for the Performance Prediction of Energy and Renewable Energy Systems

Jyoti and Bhupat Mehta School of Health Science and Technology

YEAR OF ESTABLISHMENT OF THE SCHOOL: 2021

ACADEMIC PROGRAMMES OFFERED: M. Tech (Biomedical Sciences and Engineering) and PhD

LABORATORY FACILITIES

- Biotechniques & Bioinstrumentation Laboratory
- Diagnostics & Devices Laboratory
- Product Design & Prototyping Laboratory

- **Biotechniques & Bioinstrumentation Laboratory:** The laboratory's primary focus is on bioinformatics and wet lab experimentation. Student were provided familiarization of instrument, conduct biological assay ranging from enzyme kinetics to cell viability assay. They perform characterization experiments to analyze physical and chemical properties of protein, DNA, and biomaterials. The computational work includes bioinformatics software for sequence analysis, protein structure prediction, molecular modeling and drug designing.
- **Diagnostics & Devices Laboratory:** The laboratory offers hands-on training in characterization techniques including SEM, TEM, AFM, UV-vis spectroscopy, and cyclic voltammetry, for analysis of materials and biological samples. The laboratory emphasizes the design of point-of-care diagnostic devices and sensors, focusing on user-centric, rapid, and reliable detection of clinically relevant biomarkers. Additionally, students gain experience in computational image analysis using modern software tools, applying these skills to extract quantitative data from microscopy images and support experimental interpretation, for biomedical research.
- **Product Design & Prototyping Laboratory:** The product design and prototyping laboratory offers hands-on training in a learning-by-doing fashion. Groups of up to 5 members with difference complementary academic background. The objective for each group is to identify a relevant medical problem that can be solved by a medical device. The group then works during the semester to develop one prototype from ideation to design manufacturing and final assembly. At the end of the semester the groups present their result. Constant progress evaluation will help the student to understand their progress and to revise their strategy if required. The relevant learning experience lies in the holistic approach. Even simple solutions on paper require thorough planning and well-developed strategies to avoid failure. The strict implementation of risk mitigation strategies and constant monioring is key for success.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

Equipment

- All-in-one desktop PC Make: Acer, Model: Veriton.
    - Webcam HP 325 FHD
    - Headphone Ant Epsort H580 Pro RG Gaming

- Headphone Rapo H120 Black

- Labomed Microscope TCM-400
- Vertical Single Door Deep Freezer. Make: Celfrost
- Digital Camera. Make: Labomed.
- Q4 Pet Autoclavable Micropipette 0.5-10 ul. Make- Highmedia
- Portable Autoclave, 16 L; Make: Equitron
- Q4 Pet Autoclavable Micropipette 10-100 ul. Make- Highmedia
- UV Transilluminator BR, Make: Miochem
- Q4 Pet Autoclavable micropipette 100-1000 ul, Himedia.
- BW- 201. Batch: 202401832; Analytical balance, Capacity 220 gm. Resolution- 0.0001 gm.
- Oven Universal NSW 143
    - Magnetic stirrer with a hot plate, including temperature.
    - Clamp and stand Assembly for temperature.
- Ultrasonic bath sonicator.;5 ltr. USB050 Borosil.
    - Two Trees -TTC 450 CNC
- Router Machine Kit, High Precision and Accuracy
    - YIHUA 982D 210 compatible presicion soldering iron 5 pins
- soldering station
    - 493 ESD Smoke Absorber Fume Extractor 16W
    - UNI-T UT39A+ Modern Digital Multimeter
    - Hantek DSO2D10 Digital Storage Oscilloscope 2 Channel ;
- 100MHz Bandwidth ; 1 GS/s Sample rate with Built- in 1 CH
- 25MHz waveform generator
- Multifunction printer Monochromatic. Make-HP; Model- LJMFP M329dw
- Personal Computer Make: Asus; Model- Ryzen 7
- Personal Computer Make: Asus; Model- Ryzen 7
- Research Centrifuge R-24 Remi. Complete with 6*50 ml.

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Healthcare, Medical Devices, Diagnostics, Bioinformatics, Biomaterials & Tissue Engineering, Cancer Biology, Nanotheranostics, Fungi in Disease and Health, Cancer Immunotherapy, Stem Cell Biology, and Neurobiology

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

Evaluation of Cervical Cancer Disease Progression and Testing Strategy by Point of Care Device & HPV Testing in HIV positive Women in Manipur, ICMR, EM/SG/Dev-Res/110/7794-2023, (2024-2027) 158 Lakhs

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL

Sl. No.	Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
01	Dr. Rajiv Kumar Kar	DST Medtech Mission	IIT Bhubaneswar	15/10/2024	National
02	Dr. Rajiv Kumar Kar	ACS on Campus	IIT Guwahati	13/03/2025	International

03	Dr. Raju Bej	ACS on Campus	IIT Guwahati	13/03/2025	International
04	Dr. Erwin Fuhrer	International Smart City Workshop 2025	IIT Guwahati	03.03.2025	International
05	Dr. Erwin Fuhrer	International Conference on Brain Computer Interface & Healthcare Technologies (iCon-BCIHT)	CDAC Thiruvananthapuram	19/12.2024	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Sl. No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
01	Dr. Rajiv Kumar Kar	Bioinformatics for Healthcare Engineering	University of Engineering & Management	Kolkata	12/09/2024
02	Dr. Rajiv Kumar Kar	Enhanced Surface Processes of Carbonaceous Materials	Indian Institute of Technology Guwahati	Guwahati	03/12/2024
03	Dr. Rajiv Kumar Kar	Experimental and Molecular Pharmacology Interface in Drug Discovery and Development	National Institute of Pharmaceutical Education and Research, Guwahati	Guwahati	06/12/2024
04	Dr. Rajiv Kumar Kar	Graphene Quantum Dots: Physical, Chemical, and Biological Evaluation	National Institute of Technology Patna	Patna	22/12/2024
05	Dr. Erwin Fuhrer	Instrumentation for High- and Low-field MRI applications	National Institute of Meghalaya	Shillong	11/11/2024

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks
01	Dr. Saurabh Chaturvedi	Pro Vice Chancellor Amity University Raipur Chhattisgarh	Inflammation: The Central Culprit	13/08/2024	
02	Dr. Naveen Kumar Singh	Indian Institute of Technology Delhi	From Selection to Sensing: One step Aptamer Selection and real time Continuous stress monitoring	11/09/2024	
03	Prof. Dr. Ved Chaturvedi	Sir Gangaram Hospital New Rajinder Nagar, New Delhi	Needle Arthroscopy	15/10/2024	
04	Dr. Abhijit Chandra Roy	Indian Institute of Technology Kanpur	Soft electronic skin for next generation healthcare	06/01/2025	

05	Dr. Arka Ghosh	Northwestern University, USA	The promise of digital mental health interventions in India	21/03/2025	

STUDENTS' ACHIEVEMENTS

- Mr. Arpan Kotal: Best Oral Presentation Award, National Institute of Technology, Patna
- Mr. Arpan Kotal: Travel grant DBT and CSIR, For attending ACS Spring conference, San Diego California USA

CORE FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
01	Rajiv K. Kar	Bose Institute, University of Calcutta	Assistant Professor	Sensors and Diagnostics, Analytical Chemistry, Quantum Mechanics, Soft Matter Low-dimensional Materials, Simulation, Spectroscopy, Photobiology, Data Science
02	Subrata Pramanik	RWTH Aachen University, Germany	Assistant Professor	Molecular Neurobiology and Embryology, Pharmacology and Toxicology, Computational Biology and Bioinformatics, Cancer Neuroscience, Protein Engineering and Biocatalysis
03	Erwin Fuhrer	Karlsruhe Insitute of Technology, Germany	Assistant Professor	Biomedical Engineering, Magnetic Resonance Imaging, Hardware development (MRI), Instrumentation
04	Raju Bej	IACS Kolkata, Jadavpur University	Assistant Professor	Functional Polymers, Hydrogels, Drug Delivery, Chemical Biology, Biomaterials, Artificial Mucus, Virus Inhibition
05	Rahul Agarwal	IIT Kharagpur	Assistant Professor	Microfluidic Diagnostics and AI-Enhanced Biosensing, Active Matter Biophysics and Computational Biofluid Dynamics, Bio-Inspired Engineering and Microbial Material Systems

ASSOCIATED FACULTY MEMBERS

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
01	S. Kanagaraj	IIT Kharagpur	Professor	Biomaterials Carbon nanotubes based nanocomposites Nanofluids Materials characterization
02	Dipankar Bandyopadhyay	IIT Kanpur	HoC and Professor	Micro/nano Mechanics of Soft Matter, Rheology of Viscoelastic Materials, Liquid Crystals, and Smart Materials, Intermolecular forces, Colloids and Interfacial science, Micro/Nano Fluidics, Electro- and Magneto-hydrodynamics, Electrokinetics, Self-Organized Solar Cells and Light Emitting Devices, Advanced Flow Microreactors for Artificial Photosynthesis, Hydrogen Production, Bio-Synthesis, and CO_2 sequestration, Synthesis and Applications of micro/nano Robots, MEMS Theranostic devices, Point-of-Care-Testing Health Care Devices
03	Parameswar K. Iyer	CSMCRI, Bhavnagar	Professor	Organic and Polymer synthesis, Bio & Chemosensors, Optoelectronic devices.
04	Roy P. Paily	IIT Madras	Professor	VLSI & MEMS.
05	Biman B Mandal	IIT Kharagpur	Professor	Regenerative Medicine, Biomaterials, Tissue Engineering, Stem Cells
06	G. Krishnamoorthy	IIT Kanpur	Professor	Organic Photochemistry & Spectroscopy.
07	Bithiah G. Jaganathan	Institute for Transfusion Medicine and Immune Hematology, Germany	Professor	Stem Cell Biology, Cancer signaling
08	Ranjan Tamuli	Centre for Cellular and Molecular Biology, Hyderabad.	Professor	Calcium signaling, Genetics, DNA repair
09	Tapas K. Mandal	IIT Kharagpur	Professor	Micro-nano technology and its application in Energy harvesting,

				Healthcare, Process intensification, Point of care techniques in diagnosis of diseases, Artificial Photosynthesis and Microfluidics.
10	Harshal B. Nemade	IIT Bombay	Professor	Electronic and Ultrasonic instrumentation, Electronic product design, EMI/EMC issues, Acoustic sensors, Surface acoustic wave devices, MEMS, NEMS.
11	Chandan Mukherjee	Max-Planck-Institut für Bioanorganische Chemie, Germany	Professor	Oxidation Catalysis / Molecular Magnetism / Synthesis of Single-Molecule Magnets (SMMs) / MRI Contrast agents / Water Oxidation Chemistry.
12	S. K. Dwivedy	IIT Kharagpur	Professor	Design and Robotics Non-linear Dynamics Vibration
13	Siddhartha S. Ghosh	IICB, Kolkata	Professor	Gene Therapy & Nanobiotechnology.
14	Bhisma K. Patel	IIT Kanpur	Professor	Bio-Organic Chemistry and Newer Methodologies.
15	Subhendu S. Bag	IIT Kharagpur	Professor	Bio-Organic/Medicinal Chemistry of Nucleic Acids, Peptides, and b-Lactam Antibiotics.
16	Uttam Manna	IISc, Bangalore	Associate Professor	Bio-inspired Polymer Materials, Drug Delivery, Open Microfluidics, Chemical Sensor
17	Raghvendra Gupta	University of Sydney	Associate Professor	Multiphase flow, Microfluidics and micro process engineering, Computational and experimental fluid dynamics.
18	Partho S. G. Pattader	Lehigh University, USA	Associate Professor	Stochastic dynamics, Colloid and Interface science, Tribology, Soft matter.
19	Akshai Kumar A S	IISc Bangalore	Assistant Professor	Organofluorine Chemistry, Catalysis (Homogeneous and Heterogeneous), C-H and C-F activation.
20	Krishna P. Bhabak	IISc Bangalore	Associate Professor	Design and synthesis of organic compounds or fluorescently labeled compounds or the turn-on fluorogenic drug delivery systems/prodrugs for the treatment strategies of various disease states such as cancer or inflammatory diseases

21	Urmi Salve	University of Calcutta	Associate Professor	Human Factor Engineering, Occupational Ergonomics, Cognitive Ergonomics, Research Methodology
22	Narayanasamy Selvaraju	IIT Madras	Assistant Professor	Environmental Biotechnology, Bioprocess Engineering, Biochemical Engineering
23	Palash Ghosh	ISI Kolkata	Assistant Professor	Q-learning (Reinforcement Learning) and Dynamic Treatment Regime (DTR), Personalized Medicine, Biased Sampled Data, Multi-Sample Likelihood, Case-Control Study, Design and Analysis of Clinical Trials, Analysis of Electronic Medical Records Data and other areas of Statistics

PART III

RESEARCH PUBLICATIONS

Research Publications
Books
Book Chapters

DETAILS OF RESEARCH AND DEVELOPMENT

Document Type	*No. of Publications*
Article (including: Article; Early Access)	*1,962*
Conference Paper (including: Proceedings Paper)	*73*
Book (including Book Chapter; Article of Book Chapter)	*87*
Review (including: Early Access Review; Book Review)	*125*
Editorial (including: Editorial Material)	*19*
Correction (including: Erratum)	*10*
Others (including: Meeting Abstract; Letter; Note)	*20*
TOTAL	***2,296***

Total No. of publications in Open Access: 446

Link : www.iitg.ac.in/lib/InstPubData/ar202425/pubdata%20ar%202024-25.xlsx

Source(s) :

- **SCOPUS -** https://www.scopus.com/results/results.uri?sort=plf-f&src=s&sid=f65ad4b1e54ad2a9f3322d78a0672a2a&sot=a&sdt=a&sl=370&s=AF-ID%2860010126%29+AND+%28PUBDATETXT%28%22April+2024%22%29+OR+PUBDATETXT%28%22May+2024%22%29+OR+PUBDATETXT%28%22June+2024%22%29+OR+PUBDATETXT%28%22July+2024%22%29+OR+PUBDATETXT%28%22August+2024%22%29+OR+PUBDATETXT%28%22September+2024%22+%29+OR+PUBDATETXT+%28%22October+2024%22%29+OR+PUBDATETXT%28%22November+2024%22%29+OR+PUBDATETXT%28%22December+2024%22%29+OR+PUBDATETXT%28%22January+2025%22%29+OR+PUBDATETXT%28%22February+2025%22%29+OR+PUBDATETXT%28%22March+2025%22%29%29&origin=searchadvanced&editSaveSearch=&txGid=c4da12425ce3e8c097ab920ae0c97d18&sessionSearchId=f65ad4b1e54ad2a9f3322d78a0672a2a&limit=10

- **Web of Science (WOS) -** https://www.webofscience.com/wos/woscc/summary/d8a0fa79-3ab7-45c8-ba5d-56ac448bf292-018066ee7e/relevance/1

Period : 31st March 2024 to 1st April 2025

DETAILS OF RESEARCH AND DEVELOPMENT

New Sponsored Projects: 100

Project Title	PI Name	Funding Agency	Department	Sanctioned Amount
Synthesis of artificial construction geomaterials from mine waste focusing on minimal environmental impact	Sreedeep Sekharan	IIT(ISM) Dhanbad and DST	Civil Engineering	3410400
Wearable IoT Enabled Devices for Pre-disease Condition monitoring and Epidemic Surveillance in the beyond-5G Era	Ravindra Kumar Jha	Department of Telecommunication	Electronics and Electrical Engineering	87084530
Innovative Utilization of Rice Husk Ash as a Sustainable Material for Brick Making and for Improving Geotechnical Properties of Problematic Lateritic Soil in Assam via. Geopolymerization Technique.	Kaling Taki	ASTEC	Civil Engineering	720000
Prototyping Drone Carried Organ Payload Container	Ajay Dashora	ICMR	Centre for Drone Technology	2052944
Developing hardware and software post-quantum secure platforms for performing homomorphic computations on encrypted data	Srinivasan Krishnaswamy	Department of Telecommunication	Electronics and Electrical Engineering	39600000
Biomimetic heart valve replacement exhibiting functional hemodynamic properties for potential clinical applications	Biman Behari Mandal	ICMR	JYOTI AND BHUPAT MEHTA SCHOOL OF HEALTH SCIENCES AND TECHNOLOGY	8959600
Automated platform for environmentally safe chemical analysis of food products based on flow methods and deep eutectic solvents	Tamal Banerjee	DST	Chemical Engineering	6619974
The implementation and evaluation of the interRAI Child and Youth Suite of Self-Administered Mental Health Assessments	Parameswar K Iyer	DBT	JYOTI AND BHUPAT MEHTA SCHOOL OF HEALTH SCIENCES AND TECHNOLOGY	0
Development of multiserotypic virus-like particle based vaccine candidates against porcine circovirus disease of pig in India	Sachin Kumar	ICAR	Biosciences and Bioengineering	4100000
Application of Cyclic Peptide, Stapled Peptide, and Synthetic Paratope to Modulate Amyloidosis of	Sunanda Chatterjee	SERB	Chemistry	1830000

Alzheimer's Amyloid-beta Peptide				
Certificate course on Glocal Expert Program	Chandan Das	Japan	Chemical Engineering	274800
DEMOTAPE -"Designing multi-knowledge protocols for transforming transboundary policies for hydroclimatic extremes	Arup Kumar Sarma	Wageningen University	Centre for Disaster Management & Research	4547647.07
Dedicated RF devices based on advanced physical principles and metamaterials for enhanced MRI performance	Debabrata Sikdar	DST	Electronics and Electrical Engineering	11389487
Quantum Computing	Kanhaiya Pandey	DST	Physics	692800
Development and Evaluation of Recombinant anti-HER2 ScFv for Targeted Breast Cancer Therapy: Production, Characterization, Therapeutic Efficacy Analysis through in vitro and in vivo studies	Debasish Das	ICMR	Biosciences and Bioengineering	6887903.44
Affordable Point-of-Care MRI system for applications in India	Erwin Fuhrer	,,,	JYOTI AND BHUPAT MEHTA SCHOOL OF HEALTH SCIENCES AND TECHNOLOGY	2500000
Development of functional recombinant humanized monoclonal antibody, Tocilizumab production from microbial cell factories	Veeranki Venkata Dasu	ICMR	Biosciences and Bioengineering	25103032
Expansion of the Genetic Code: A Potential Treatment Strategy for Type-I Diabetes	Subhendu Sekhar Bag	DST	Centre for the Environment	15519427
Process development for tea Aroma recovery and concentration	Senthilmurugan Subbiah	EKATERRA RESEARCH AND DEVELOPMENT INDIA PRIVATE LIMITED	Chemical Engineering	3683600
BIS Chair Professor Research Grant	Hemant B. Kaushik	other-Bureau of india Standars	Civil Engineering	1800000
Non-volatile and energy-efficient non-collinear antiferromagnet-based memory devices	Binoy Krishna Hazra	Max-Planck-Gesellschaft	Physics	1908860
Enabling of Academic Institutes in Technical Textiles Education in	Tadikonda Venkata Bharat	Ministry of Textiles	Civil Engineering	63910000

India				
Non-Conventional Bio-Engineering Measures to Mitigate River Bank Erosion by Applying EMP Concept for 500m length at Kordoiguri	Arup Kumar Sarma	Brahamputra Board Ghy	Civil Engineering	1756320
Development of Novel Ternary Composite Membrane with High Selectivity for Direct Methanol Fuel Cell Applications	Bishnupada Mandal	SERB	Chemical Engineering	7432260
Empowering Electronic Design Automation Software with Machine Learning Techniques	Chandan Karfa	Google	Computer Science and Engineering	1668000
Functionality Enhancement through Design and Development of Advanced Finite Element Algorithms for STRTOOLS	Sachin Singh Gautam	SERB	Mechanical Engineering	6610692
LOw-cost innovative Technology for water quality monitoring and water resources management for Urban and rural water Systems in India (LOTUS)	Senthilmurugan Subbiah	DST	Chemical Engineering	23271000
Fabrication, characterization and experimental investigation of functionally graded piezo-electric components.	Poonam Kumari	SERB	Mechanical Engineering	4870800
Development of Renewable Energy Based onsite Oxygen cum Green Hydrogen Generation System: A Self-sufficient Approach for Indian Hospitals	Saket Verma	SERB	School of Energy Science and Engineering	4587231
Empowering Northeastern Artisans and Farmers: A Blockchain-Powered Marketplace	Phrangboklang Lyngton Thangkhiew	IIT Bhilai Innovation and Technology Foundation	Computer Science and Engineering	3232000
Agricultural Public-Private Partnership: A Comparative Study of Indian and Ethiopian Models	Mrinal Kanti Dutta	IHE Delft	Centre for Sustainable Water Research	4285390.7
Accelerated Biodegradation Test & Correlations for Biodegradable Plastics & its formulations	Vimal Katiyar	DBT	Centre for Sustainable Polymers	1872600
Reaction Kinetics Pathways of Liquids Organic Hydrogen Carriers for Effective Hydrogen Storage Using Ab Initio Calculations	Tamal Banerjee	SERB	Chemical Engineering	335000

Enhancing Construction Safety, Sustainability, and Project Performance Using Cutting-Edge Technologies	Santu Kar	NBCC (India) Limited	Civil Engineering	4018272
Time-Dependent Seismic Performance, Risk and Loss Assessment of Multistorey Buildings with RC Shear Walls Under Mainshock-Aftershock Sequences	Kaustubh Dasgupta	Ministry of Education	Civil Engineering	6832000
Supervised and Federated Learning Approaches in EDA Tool Development	Chandan Karfa	Google	Computer Science and Engineering	2500000
Design, Development, and Demonstration of Solar-PV integrated On-board and Off-board Electric-Rickshaw Charging Infrastructure	Ravindranath Adda	DST	Electronics and Electrical Engineering	6773970
India-Japan Workshop on Biomolecular Electronics and Organic Nanotechnology for Environment Preservation (IJWBME 2023)	Parameswar K Iyer	DST	Centre for Nanotechnology	951000
Development of Sustainable Mortar and bricks by ancient methods	Tadikonda Venkata Bharat	ADANI ENTERPRISES LTD	Centre for Indian Knowledge Systems	10500000
Design and devolvement of a solar-powered pottery Chaak	Sashindra Kumar Kakoty	ASTEC	School of Agro and Rural Technology	328915
Speaker centric documentation of Phalee to understand generational language change and loss	Shakuntala Mahanta	IIT Indore	Humanities and Social Sciences	300000
Efficient Implementation of Cryptographic Algorithms for Security	Sukumar Nandi	SERB	Computer Science and Engineering	335000
Development of a 24-Hour Operational Hybrid Greenhouse Solar Dryer Integrated with Novel Biogas Auxiliary Heating Unit	Pankaj Kalita	ASTEC	School of Energy Science and Engineering	297000
Probing the Conformational Dynamics of the Spike Receptor Binding Domain (RBD) of SARS-CoV-2 and its Variants	Himanshu Singh	DAE	Biosciences and Bioengineering	5600000
New topological van der Waals materials for next-generation quantum device applications.	Ratnadwip Singha	DST	Physics	3500000
Carbon dot-modified underwater superoleophobic membrane for simultaneous separation of dyes and oils	Uttam Manna	,,,	Chemistry	1830000

Synthesis and Characterization of novel Dinuclear Metal Complexes for peroxidic epoxidation	Chivukula Vasudeva Sastri	SERB	Chemistry	1830000
Exploration of Protein Nanofibrils as Functional Materials in Water Purification	Sunanda Chatterjee	SERB	Chemistry	1680000
Paper-Based Microfluidic Detection of Adulterants/Pesticides in Tea Samples	Pranab Kumar Mondal	NPTEL	Centre for Educational Technology	400000
Development and Implementation of AI-Driven Smart Farming Solutions Utilizing IoT and Digital Extension Services for Enhanced Agricultural Productivity: A Study on Assam, Chhattisgarh, Rajasthan and Uttar Pradesh	Pratul Chandra Kalita	ICSSR	School of Business	1500000
Hardware Accelerator Synthesis for Machine Learning Models	Chandan Karfa	NPTEL IIT madras	Computer Science and Engineering	400000
Establishment of Trees Outside Forests (TOF)-based Enterprise Incubation Centres (TBEICs) in State of Assam	Siddhartha Singha	United States Agency for International Development (USAID)	School of Agro and Rural Technology	10420000
DESIGN AND DEVELOPMENT OF SOLAR PHOTO VOLTAIC POWERED CANE SLICING MACHINE	Risha Mal	DST	School of Agro and Rural Technology	2411720
Design and development of a bio-inspired hip protector for elderly people made of shear thickening fluid filled 3D-printed metamaterial	Prasenjit Khanikar	NPTEL	Centre for Educational Technology	800000
Optimal Estimation of New Physics couplings at Colliders and beyond	Subhaditya Bhattacharya	SERB	Physics	3604785
Integrated Sensing and communications	Ribhu	NPTEL IIT Madras	Centre for Educational Technology	400000
Creating awareness about sustainability through online entertainment gaming	Sharmistha Banerjee	NPTEL	Centre for Educational Technology	400000

Transport processes in multiphase systems	Raghvendra Gupta	NPTEL	Centre for Educational Technology	400000
Efficient VLSI Implementation of Semantic Segmentation Algorithms for Autonomous Vehicles.	Shaik Rafi Ahamed	NPTEL	Electronics and Electrical Engineering	400000
Low carbon method for valorizing industrial waste as useful geomaterials	Sreedeep Sekharan	IIT Madras	Centre for Educational Technology	1200000
Simulation of Compressible FIow Problems	Niranjan Sahoo	IIT Madras	Centre for Educational Technology	400000
Proposal for Development of Proximity Sensor (FMCW Radar + Antenna) for 30 MM Naval Fuze	Mahima Arrawatia	HBL	Electronics and Electrical Engineering	6000000
Identifying the different strategies employed to hide knowledge	Abraham Cyril Issac	NPTEL	Centre for Educational Technology	800000
Design, fabrication, and installation of raw MSW to charcoal conversion system at NTPC Ramagundam township	Senthilmurugan Subbiah	NTPC Ramaguntam	School of Energy Science and Engineering	7479000
Customisation and characterization of vector beams beyond paraxial approximation by coherent control	Tarak Nath Dey	SERB	Physics	3731178
Peri-Urban water regimes and nature	Anamika Barua	Swedish research council Formas	Centre for Sustainable Water Research	5159878
Implementation of RAA and AR/VR Labs in schools of Meghalaya	Parameswar K Iyer	SSA	Chemistry	29300000
Method for Preparing Earthquake Risk Scenarios in States and UTs of lndia	Hemant B. Kaushik	NDMA	Civil Engineering	4177200
Low -cost Disaster Emergency Services for Communities At Risk LODESTAR	Anamika Barua	DST	Humanities and Social Sciences	19810880
Determining normative nasalance and acoustic characteristics in low-resourced North-Eastern languages with applications to language technology and speech therapy	Priyankoo Sarmah	SERB	Humanities and Social Sciences	3285480
Research and Design of Disability-Inclusive Virtual Shopping Experience	Keyur Babulal Sorathia	Walmart Global Technology Services	Design	3300000
RESIDENTIAL TEACHERS TRAINING FOR 1597 TEACHERS OF GOVT. OF ASSAM	Parameswar K Iyer	SSA	Chemistry	9582000

Development of Flexible Ultrasonic Piezo Sensors For Structural Health Monitoring-Achieving Goal Towards Smart Infrastructure	Budhaditya Hazra	Ministry of Education	Civil Engineering	7404000
Tinkering Lab Assam for 224 schools	Parameswar K Iyer	SSA	Chemistry	224000000
Silk fibroin carrier for the culture and transplantation of corneal endothelium	Biman Behari Mandal	DBT	JYOTI AND BHUPAT MEHTA SCHOOL OF HEALTH SCIENCES AND TECHNOLOGY	4864720
Mechanistic insights into the role of RNase AM in Ribosome Biogenesis	Anand Baskaran	DBT	Biosciences and Bioengineering	1700000
COIL-D: Centre of Indian Language Data (Language corpora collection, Creation, Guidelines, Benchmarking, Leaderboard)	Samit Bhattacharya	DEITY	Centre for Linguistic Science and Technology	35190000
Bringing Environmental Awareness into Undergraduate Education in North-East India by Incorporating Computational Acoustic Ecology	Priyankoo Sarmah	Mozilla Foundation	Centre for Linguistic Science and Technology	2073269
Development of clinical grade off-the-shelf human induced pluripotent stem cell (hiPSC) derived granulocytes for multidrug resistant microbial sepsis	Rajkumar Parshottambhai Thummer	ICMR	Biosciences and Bioengineering	6239313
Development of Indigenous technology for extraction of critical minerals including rare earth elements from overlying strata of Northeastern Coalfields	Prabu Vairakannu	Coal India Limited	Chemical Engineering	36575000
Phase and Bandgap Engineering of III-Oxide in Quest of Interfacial 2DEG.	Ankush Bag	Ministry of Education	Centre for Nanotechnology	8900000
Information Security Education Awareness (ISEA) Project Phase-III	Tamarapalli Venkatesh	DEITY	Computer Science and Engineering	4690000
Interlayer exchange coupling based non-volatile, low-complexity and scalable PUF hardware	Tanmay Dutta	Ministry of Education	Centre for Nanotechnology	9000000
Development of an Improved Anaerobic Digestion Process For Biomethane Production using Paper Industry Waste	Ajay Kalamdhad	SERB	Civil Engineering	1830000

Transforming Energy Efficiency in Industries: Comprehensive Analysis and Innovative Solutions	R Anandalakshmi	IIT Madras	School of Energy Science and Engineering	3000000
Performance Evaluation of PMGSY Roads Constructed Using New Technology Full Depth Reclamation (FDR) with Cement and Additive	Anjan Kumar Siddagangaiah	NRRDA	Civil Engineering	5346000
Exploring Hybrid Circuit QED Systems for Quantum Technology	Amarendra Kumar Sarma	STAR	Physics	5479000
Assessment of Bioavailability of Microplastics in Soils and their Remediation through Biochar Prepared from Locally Available Agro-horti Refuse	Sudip Mitra	SERB	School of Agro and Rural Technology	4812000
Development of Intensity Duration Frequency Curves for North East India Incorporating Climate Change	Sreeja Pekkat	Ministry of Earth Sciences	Civil Engineering	3159720
Exploring Parity-Time symmetry effect in metasurfaces for terahertz photonics	Gagan Kumar	SERB	Physics	577500
Aerodynamics and thrust generation of two pitching plates for the design of high-performance micro-air-vehicle	Arnab Kr. De	SERB	Mechanical Engineering	1000000
Multi-variable Trace formulae on symmetric spaces	Arup Chattopadhyay	SERB	Mathematics	2554992
Machine-Learning Enabled Next-Generation IoT Communications (MAGICO)	Kuntal Deka	DST	Electronics and Electrical Engineering	2518146
Biodegradable Toys Centre for Sustainable Livelihood Empowerment of ST community "(GREEN Putola Centre)" Green toys from Assam.	Vimal Katiyar	DST	Centre for Sustainable Polymers	23284710
Performance evaluation of Water hyacinth as an alternate geotextile material	Anil Kumar Mishra	Min. of Textiles (UNDP)	Civil Engineering	2114800
Weak Galerkin Finite Element Methods for Maxwell?s Equations with Discontinuous Coefficients	Bhupen Deka	SERB	Mathematics	2774992
Production of recombinant Humanized monoclonal antibody, Ibalizumab and its variants from Pichia pastoris	Veeranki Venkata Dasu	ICMR	Biosciences and Bioengineering	4064336
Mechanistic investigations on the efficacy and mode of action of Ashwagandha Rasayana and Yogaraj Guggulu, using a hybrid Proteomics-Cheminformatics-Network medicine approach for the treatment of Osteoarthritis	Vibin Ramakrishnan	CPRI	Biosciences and Bioengineering	11164208
Development of nano-ensemble kit for the detection of clinically Relevant serum biomarkers.	Siddhartha Sankar Ghosh	DBT	Biosciences and Bioengineering	8663280

A personalized visual guidance system for musculoskeletal therapeutic interventions	Subramani Kanagaraj	SERB	Mechanical Engineering	252000

Ongoing Sponsored Projects: 206

Project Title	PI Name	Funding Agency	Department	Sanctioned Amount
Quantum Computing	Kanhaiya Pandey	DST	Physics	692800
Non-volatile and energy-efficient non-collinear antiferromagnet-based memory devices	Binoy Krishna Hazra	Max-Planck-Gesellschaft	Physics	1908860
Development of Sustainable Mortar and bricks by ancient methods	Tadikonda Venkata Bharat	ADANI ENTERPRISES LTD	Centre for Indian Knowledge Systems	10500000
New topological van der Waals materials for next-generation quantum device applications.	Ratnadwip Singha	DST	Physics	3500000
Information Security Education Awareness (ISEA) Project Phase-III	Tamarapalli Venkatesh	DEITY	Computer Science and Engineering	4690000
Low-cost innovative Technology for water quality monitoring and water resources management for Urban and rural water Systems in India (LOTUS)	Senthilmurugan Subbiah	DST	Chemical Engineering	23271000
J C Bose Fellowship	Tharmalingam Punniyamurthy	SERB	Chemistry	9000000
Antiferromagnets with collinear and non-collinear spin textures for the future spintronics device applications.	Binoy Krishna Hazra	SERB	Physics	700000
Ecohydrology and Vulnerability Assessment in Groundwater-fed and Snow and Glacial-fed River Systems of Western and Eastern Himalaya under the Warming Climate	Santosha Kumar Dwivedy	,,,	Centre for Intelligent Cyber Physical Systems	28407359
Development of clinical grade off-the-shelf human induced pluripotent stem cell (hiPSC) derived granulocytes for multidrug resistant microbial sepsis	Rajkumar Parshottambhai Thummer	ICMR	Biosciences and Bioengineering	6239313

Agricultural Public-Private Partnership: A Comparative Study of Indian and Ethiopian Models	Mrinal Kanti Dutta	IHE Delft	Centre for Sustainable Water Research	4285390.7
Investigating the Protein Dynamics, Interactions and Allostery for Therapeutic Potential and Applications	Himanshu Singh	DBT	Biosciences and Bioengineering	12300000
Soil Fertility Test using Soil Organic Carbon Detection Kit: Capacity Building & Implementation in Assam, NE India	Sudip Mitra	NEC, Shillong	School of Agro and Rural Technology	5246600
Probing the Cellular Organisation of Ribosome Biogenesis in Bacteria	Anand Baskaran	SERB	Biosciences and Bioengineering	11070312
Oligo-Thiophene-Conjugated Air-Stable Fluorescent Organic Radicals	Samir Kumar Sarkar	SERB	Chemistry	5722800
Development of Terahertz Topological Photonic Passive Devices for 6G applications	Debabrata Sikdar	Department of Telecommunication	Electronics and Electrical Engineering	13161000
Wearable IoT Enabled Devices for Pre-disease Condition monitoring and Epidemic Surveillance in the beyond-5G Era	Ravindra Kumar Jha	Department of Telecommunication	Electronics and Electrical Engineering	87084530
Innovative Utilization of Rice Husk Ash as a Sustainable Material for Brick Making and for Improving Geotechnical Properties of Problematic Lateritic Soil in Assam via. Geopolymerization Technique.	Kaling Taki	ASTEC	Civil Engineering	720000
Biomimetic heart valve replacement exhibiting functional hemodynamic properties for potential clinical applications	Biman Behari Mandal	ICMR	JYOTI AND BHUPAT MEHTA SCHOOL OF HEALTH SCIENCES AND TECHNOLOGY	8959600
Machine Learning Techniques to Address the Pilot Transmission Overhead in an Intelligent Reflecting Surface Aided Antenna Selection System	Sarvendranath Rimalapudi	DST	Electronics and Electrical Engineering	3500000
Automated platform for environmentally safe chemical analysis of food products based on flow methods and deep eutectic solvents	Tamal Banerjee	DST	Chemical Engineering	6619974
Application of Cyclic Peptide, Stapled Peptide, and Synthetic Paratope to Modulate Amyloidosis of Alzheimers Amyloid-beta Peptide	Sunanda Chatterjee	SERB	Chemistry	1830000
Dedicated RF devices based on advanced physical principles and metamaterials for enhanced MRI performance	Debabrata Sikdar	DST	Electronics and Electrical Engineering	11389487

Development and Evaluation of Recombinant anti-HER2 ScFv for Targeted Breast Cancer Therapy: Production, Characterization, Therapeutic Efficacy Analysis through in vitro and in vivo studies	Debasish Das	ICMR	Biosciences and Bioengineering	6887903.44
Affordable Point-of-Care MRI system for applications in India	Erwin Fuhrer	,,,	JYOTI AND BHUPAT MEHTA SCHOOL OF HEALTH SCIENCES AND TECHNOLOGY	2500000
Development of functional recombinant humanized monoclonal antibody, Tocilizumab production from microbial cell factories	Veeranki Venkata Dasu	ICMR	Biosciences and Bioengineering	25103032
Expansion of the Genetic Code: A Potential Treatment Strategy for Type-I Diabetes	Subhendu Sekhar Bag	DST	Centre for the Environment	15519427
BIS Chair Professor Research Grant	Hemant B. Kaushik	other-Bureau of india Standars	Civil Engineering	1800000
Water transformation pathways planning, trans-path-planning.	Anamika Barua	IHE Delft	Humanities and Social Sciences	23398445.06
Enabling of Academic Institutes in Technical Textiles Education in India	Tadikonda Venkata Bharat	Ministry of Textiles	Civil Engineering	63910000
Development of Novel Ternary Composite Membrane with High Selectivity for Direct Methanol Fuel Cell Applications	Bishnupada Mandal	SERB	Chemical Engineering	7432260
Fabrication, characterization and experimental investigation of functionally graded piezo-electric components.	Poonam Kumari	SERB	Mechanical Engineering	4870800
Functionality Enhancement through Design and Development of Advanced Finite Element Algorithms for STRTOOLS	Sachin Singh Gautam	SERB	Mechanical Engineering	6610692
Development of Renewable Energy Based onsite Oxygen cum Green Hydrogen Generation System: A Self-sufficient Approach for Indian Hospitals	Saket Verma	SERB	School of Energy Science and Engineering	4587231
Enhancing Construction Safety, Sustainability, and Project Performance Using Cutting-Edge Technologies	Santu Kar	NBCC (India) Limited	Civil Engineering	4018272
Synthesis and Characterization of novel Dinuclear Metal Complexes for peroxidic epoxidation	Chivukula Vasudeva Sastri	SERB	Chemistry	1830000
Exploration of Protein Nanofibrils as Functional Materials in Water Purification	Sunanda Chatterjee	SERB	Chemistry	1680000

DESIGN AND DEVELOPMENT OF SOLAR PHOTO VOLTAIC POWERED CANE SLICING MACHINE	Risha Mal	DST	School of Agro and Rural Technology	2411720
Optimal Estimation of New Physics couplings at Colliders and beyond	Subhaditya Bhattacharya	SERB	Physics	3604785
Customisation and characterization of vector beams beyond paraxial approximation by coherent control	Tarak Nath Dey	SERB	Physics	3731178
Peri-Urban water regimes and nature	Anamika Barua	Swedish research council Formas	Centre for Sustainable Water Research	5159878
Developing hardware and software post-quantum secure platforms for performing homomorphic computations on encrypted data	Srinivasan Krishnaswamy	Department of Telecommunication	Electronics and Electrical Engineering	39600000
Low -cost Disaster Emergency Services for Communities At Risk LODESTAR	Anamika Barua	DST	Humanities and Social Sciences	19810880
Silk fibroin carrier for the culture and transplantation of corneal endothelium	Biman Behari Mandal	DBT	JYOTI AND BHUPAT MEHTA SCHOOL OF HEALTH SCIENCES AND TECHNOLOGY	4864720
Phase and Bandgap Engineering of III-Oxide in Quest of Interfacial 2DEG.	Ankush Bag	Ministry of Education	Centre for Nanotechnology	8900000
Creation of DSIR-Common Research and technology Development Hub (CRTDH)	Vimal Katiyar	DSIR	Centre for Sustainable Polymers	50000000
Interlayer exchange coupling based non-volatile, low-complexity and scalable PUF hardware	Tanmay Dutta	Ministry of Education	Centre for Nanotechnology	9000000
Transforming Energy Efficiency in Industries: Comprehensive Analysis and Innovative Solutions	R Anandalakshmi	IIT Madras	School of Energy Science and Engineering	3000000
Exploring Hybrid Circuit QED Systems for Quantum Technology	Amarendra Kumar Sarma	STAR	Physics	5479000
Assessment of Bioavailability of Microplastics in Soils and their Remediation through Biochar Prepared from Locally Available Agro-horti Refuse	Sudip Mitra	SERB	School of Agro and Rural Technology	4812000
Development of Intensity Duration Frequency Curves for North East India Incorporating Climate Change	Sreeja Pekkat	Ministry of Earth Sciences	Civil Engineering	3159720
Exploring Parity-Time symmetry effect in metasurfaces for terahertz photonics	Gagan Kumar	SERB	Physics	577500

Machine-Learning Enabled Next-Generation IoT Communications (MAGICO)	Kuntal Deka	DST	Electronics and Electrical Engineering	2518146
JJM Chair Professor	Mihir Kumar Purkait	Govt of India	Chemical Engineering	68331600
Soil Fertility Test using Soil Organic Carbon Detection Kit: Capacity Building & Implementation in Assam, NE India	Sudip Mitra	NEC, Shillong	School of Agro and Rural Technology	5646600
Biodegradable Toys Centre for Sustainable Livelihood Empowerment of ST community "(GREEN Putola Centre)" Green toys from Assam.	Vimal Katiyar	DST	Centre for Sustainable Polymers	23284710
Development of nano-ensemble kit for the detection of clinically Relevant serum biomarkers.	Siddhartha Sankar Ghosh	DBT	Biosciences and Bioengineering	8663280
A personalized visual guidance system for musculoskeletal therapeutic interventions	Subramani Kanagaraj	SERB	Mechanical Engineering	252000
Synthesis of artificial construction geomaterials from mine waste focusing on minimal environmental impact	Sreedeep Sekharan	IIT(ISM) Dhanbad and DST	Civil Engineering	3410400
Spring School 2023	Chandan Das	GIFU	Chemical Engineering	412272
Incorporation of advanced technology as Retrofitting for the removal of Fluoride from the PWSS at (a) Nizbbogai (b) Rajapara 2 and (c) Sakhati, in Boko town of Kamrup District, Assam.	Mihir Kumar Purkait	Jal Jeevan Mission (NJJM)	Chemical Engineering	16005000
Exploration of Flexible Power Distribution System Enabled by the Smart Transformer	Chandan Kumar	Humboldt Foundation	Electronics and Electrical Engineering	4700000
DEMOTAPE -Designing multi-knowledge protocols for transforming transboundary policies for hydroclimatic extremes	Arup Kumar Sarma	Wageningen University	Centre for Disaster Management & Research	4547647.07
Investigating The Coexistence of Radar and Communications for Present and Future Standards	Ribhu	SERB	Electronics and Electrical Engineering	660000
Visibility in Dynamic Polygonal Domains	Rajasekhar Inkulu	National Board of Higher Math,	Computer Science and Engineering	296500
Process development for tea Aroma recovery and concentration	Senthilmurugan Subbiah	EKATERRA RESEARCH AND DEVELOPMENT INDIA PRIVATE LIMITED	Chemical Engineering	3683600

Data-driven optimization of surgical fixation technique by fast detection of femur fracture type from X-ray images: An AI based framework	Souptick Chanda	Ministry of Education	Biosciences and Bioengineering	2235000
Gasification of Agro Residues and Municipal Solid Wastes for decentralized power generation	Pankaj Kalita	DRDO	School of Energy Science and Engineering	276000
Empowering Northeastern Artisans and Farmers: A Blockchain-Powered Marketplace	Phrangboklang Lyngton Thangkhiew	IIT Bhilai Innovation and Technology Foundation	Computer Science and Engineering	3232000
Distinguishing FIMP, WIMP and Hybrid Darkmatter Scenarios at the LHC	Poulose Poulose	SERB	Physics	3157832
Time-Dependent Seismic Performance, Risk and Loss Assessment of Multistorey Buildings with RC Shear Walls Under Mainshock-Aftershock Sequences	Kaustubh Dasgupta	Ministry of Education	Civil Engineering	6832000
DBT PAN IIT Center for Bioenergy: Phase II	Arun Goyal	DBT	Biosciences and Bioengineering	21932720
Transition metal-radical complexes as catalysts for electrochemical CO2 reduction	Chandan Mukherjee	CSIR	Chemistry	900000
ICMR-DHR Centres of Excellence	Dipankar Bandypadhyay	ICMR	Centre for Nanotechnology	150694315
School of Innovations in Biomedical Devices and Systems and Inter-institutional Biodesign Center (SIBDS-IIBC)	Subramani Kanagaraj	DBT	Mechanical Engineering	30000000
Prototype Development of Low-Cost Resistive Humidity Sensor	Ravindra Kumar Jha	DST	Electronics and Electrical Engineering	3948434
Framework for Resource-Resilient and Secure 5G V2X Communication	Moumita Patra	SERB	Computer Science and Engineering	2111164
Development of 6G THz Test Bed with Orbital Angular Momentum and Multiplexing	Ratnajit Bhattacharjee	Department of Telecommunication	Electronics and Electrical Engineering	56753400
Probing the Conformational Dynamics of the Spike Receptor Binding Domain (RBD) of SARS-CoV-2 and its Variants	Himanshu Singh	DAE	Biosciences and Bioengineering	5600000
Development of a 24-Hour Operational Hybrid Greenhouse Solar Dryer Integrated with Novel Biogas Auxiliary Heating Unit	Pankaj Kalita	ASTEC	School of Energy Science and Engineering	297000

Speaker centric documentation of Phalee to understand generational language change and loss	Shakuntala Mahanta	IIT Indore	Humanities and Social Sciences	300000
Injectable silk-based hydrogel system loaded with chemotherapeutic agent to treat canine mammary gland neoplasm	Biman Behari Mandal	DBT	JYOTI AND BHUPAT MEHTA SCHOOL OF HEALTH SCIENCES AND TECHNOLOGY	7490640
Developing a post quantum lattice based block cipher	Srinivasan Krishnaswamy	Ministry of Education	Electronics and Electrical Engineering	9990000
Smart Classroom System for Monitoring Well-being, Enhancing Learning Quality, and Preventing Malpractice	Anirban Dasgupta	Indian Institute Of Technology Guwahati	Electronics and Electrical Engineering	1500000
Genome editing and genetic engineering for improvement in aroma, abiotic stress tolerance and yield of Kola Joha and Manipur Black Rice	Lingaraj Sahoo	DBT	Biosciences and Bioengineering	9515680
A Mechanistic Insight into the Effect of Hetero-atom Substitution on the Metal- mediated Aldehyde Deformylation Reactions	Chivukula Vasudeva Sastri	Ministry of Education	Chemistry	3000000
Exploiting the Frustrated Lewis Pair and Frustrated Bronsted Pair Catalysis for Metal Free Hydrogenation And Sustainable Hydrogen (Dehydrogenation) Release from Liquid Organic Hydrogen Carriers (LOHCs)	Pavan Kumar Kancharla	Ministry of Education	Chemistry	4000000
Engineering CRISPR-based antimicrobials for selective targeting of drug resistant bacteria	Anand Baskaran	Ministry of Education	Biosciences and Bioengineering	4900000
Establishment of Trees Outside Forests (TOF)-based Enterprise Incubation Centres (TBEICs) in State of Assam	Siddhartha Singha	United States Agency for International Development (USAID)	School of Agro and Rural Technology	10420000
M. Des Programme / Executive Development Programme in Electronics Product Design	Udaya Kumar Dharmalingam	MIETY	Design	180211000
Bilingual experience? in heritage language speakers and its impact on cognitive control: Creating data base from varying socio-cultural background	Bidisha Som	DST	Humanities and Social Sciences	4810751

AI/ML- based Channel Estimation and Beamforming for mmWave MIMO-OTFS in 6G	Kuntal Deka	DST	Electronics and Electrical Engineering	3780966
Proposal for Development of Proximity Sensor (FMCW Radar + Antenna) for 30 MM Naval Fuze	Mahima Arrawatia	HBL	Electronics and Electrical Engineering	6000000
Integration of group-III oxide and III-nitride-based wide bandgap semiconductors for next-generation electronics applications	Ankush Bag	NINA	Electronics and Electrical Engineering	4028466
A Real time 2D flood inundation forecasting system for the Brahmaputra River basin using Hydrologic- Hydro dynamic and statistical dynamical approaches	Rajib Kumar Bhattacharjya	IITM	Civil Engineering	2700448
Socio-economic development through natural dye based eri silk entrepreneurship among ethnic communities in Nagaon, Morigaon and Karbi Anglong districts of Assam	Utpal Bora	DST	Centre for the Environment	2580970
The Maximal Dispersion in Metric Space	Gautam Kumar Das	SERB	Mathematics	660000
Development of a novel local rehabilitation technique for corroded steel-reinforced concrete structures	Oinam Romanbabu Meetei	CDCE	Civil Engineering	1100000
Development of Flexible Ultrasonic Piezo Sensors For Structural Health Monitoring-Achieving Goal Towards Smart Infrastructure	Budhaditya Hazra	Ministry of Education	Civil Engineering	7404000
Determining normative nasalance and acoustic characteristics in low-resourced North-Eastern languages with applications to language technology and speech therapy	Priyankoo Sarmah	SERB	Humanities and Social Sciences	3285480
Phase Optimization and Performance Analysis of Intelligent Reflecting Surface Assisted Wireless Communication Systems over Generalized Fading Channels	Kuntal Deka	,,,	Electronics and Electrical Engineering	160000
Unravelling the Functional Mechanism of Target Recognition and Cleavage in an Unusual CRISPR-Cas System	Anand Baskaran	SERB	Biosciences and Bioengineering	5908760

COIL-D: Centre of Indian Language Data (Language corpora collection, Creation, Guidelines, Benchmarking, Leaderboard)	Samit Bhattacharya	DEITY	Centre for Linguistic Science and Technology	35190000
Cancer immunotherapy initiative In India (DUCI3): Repurposing anti-COVID19 immunity for cancer immunotherapy	Sachin Kumar	Dalhousie Medical Research Foundation	Biosciences and Bioengineering	873000
Design and Development of AI/ML Co-Processor and Post Quantum Cryptography Co-Processor (An initiative towards Electronics System Design and Manufacturing in North-East Region)	Gaurav Trivedi	DEITY	Electronics and Electrical Engineering	199990000
Synthesis and Characterization of Vanadium Oxoperoxo Complexes: Mimicking Vanadium Haloperoxidases	Biplab Mondal	SERB	Chemistry	1830000
Investigation of the Reentrant Disordered Behavior and Catalytic Properties of Frustrated Pyrochlore Nanostructures	Subhash Thota	DST	Physics	6171000
India-Japan Workshop on Biomolecular Electronics and Organic Nanotechnology for Environment Preservation (IJWBME 2023)	Parameswar K Iyer	DST	Centre for Nanotechnology	951000
Performance Evaluation of PMGSY Roads Constructed Using New Technology Full Depth Reclamation (FDR) with Cement and Additive	Anjan Kumar Siddagangaiah	NRRDA	Civil Engineering	5346000
Development and leveraging small-scale fluidic Platform towards understanding the plant root system: A Convergence of Engineering and Biology	Pranab Kumar Mondal	DST	Mechanical Engineering	6887657
Metal Free Aminative C-O Cleavage of α-Oxycarbonyls: Expeditious Access to Aminoalcohols-Based Antidepressants	Chandan Kumar Jana	SERB	Chemistry	3850000
Three-Dimensional Large Deformation Isogeometric Impact and Self-contact Using Varying-Order NURBS Discretization Approach	Sachin Singh Gautam	SERB	Mechanical Engineering	2975764
Patient-Specific Hemodynamics in Coronary Circulation	Raghvendra Gupta	ICMR	Chemical Engineering	3693173
Securing low-power embedded processors for IoT applications against power-analysis attacks	Roy Paily Palathinkal	Semiconductor Research Corporation	Electronics and Electrical Engineering	3476569
Sustainable Bioenergy and bioplastic production from bamboo waste.	Vimal Katiyar	DST	Centre for Sustainable Polymers	4654680

Identifying bacterial wilt resistant/tolerant tomato plant(s) by selective propagation of young tomato seedlings resistant/tolerant to prior Ralstonia solanacearum infection	Ranjan Tamuli	SERB	Biosciences and Bioengineering	1005000
Sign Language Translator for Identification of Health Conditions of the Deaf and Dumb Population for Medical Attention.	Manas Kamal Bhuyan	SERB	Electronics and Electrical Engineering	1754016
Metabolic engineering of Rhodococcus opacus: A potential workhorse for lignin valorization into high-value lipids	Senthilkumar Sivaprakasam	DST	Biosciences and Bioengineering	5896264
Sustainable Biorefinery and Bioplastic production from bamboo waste	Dean, R&D	India	Centre for Sustainable Polymers	4654680
Design and development of real-time semantic segmentation networks and the corresponding FPGA-ASIC based hardware accelerators for possible deployment in commercial prototype for autonomous driving	Shaik Rafi Ahamed	SERB	Electronics and Electrical Engineering	2875302
Formulation of membrane based Micro Reactor for decontamination cum denitration of nitrate bearing effluents and conversion to valuable products	Chandan Das	SERB	Centre for the Environment	3923260
Performance evaluation of Water hyacinth as an alternate geotextile material	Anil Kumar Mishra	Min. of Textiles (UNDP)	Civil Engineering	2114800
SWASTHA Smart Wearable Advanced nanoSensing Technologies in Healthcare ASICs	HOC NANO	DEITY	Centre for Nanotechnology	153508000
Mechanistic investigations on the efficacy and mode of action of Ashwagandha Rasayana and Yogaraj Guggulu, using a hybrid Proteomics-Cheminformatics-Network medicine approach for the treatment of Osteoarthritis	Vibin Ramakrishnan	CPRI	Biosciences and Bioengineering	11164208
Impact and Suitability of Electric Vehicles to Indian Roads	Akhilesh Kumar Maurya	DST	Civil Engineering	1796125
Study of Truth Graphs: Applications in Logic gate and Cryptography	Bhaba Kumar Sarma	SERB	Mathematics	1830000
In-silico, In-vitro and In-vivo evaluation of metabolites of curcumin as potential anti-inflammatory agents	Shankar Prasad Kanaujia	SERB	Biosciences and Bioengineering	1005000

Gene expression analysis of the citral	Sachin Kumar	BORDOLOI BIOTECH INDIA PRIVATE LIMITED	Biosciences and Bioengineering	200000
Exploration of Underutilized Amaranthus species for Sustainable Livelihood, Nutritional Security and Climate Resilience of Western Himalayan Region	Latha Rangan	DBT	School of Agro and Rural Technology	3900240
Bringing Environmental Awareness into Undergraduate Education in North-East India by Incorporating Computational Acoustic Ecology	Priyankoo Sarmah	Mozilla Foundation	Centre for Linguistic Science and Technology	2073269
Indian Institutions-Fermi Lab Collaboration in Neutrino Physics.	Bipul Bhuyan	DST	Physics	16054000
A novel safe strategy to generate integration-free human induced pluripotent stem cells using Newcastle Disease Virus as a gene delivery vector	Rajkumar Parshottambhai Thummer	DBT	Biosciences and Bioengineering	5950240
Development of high-performance supercapacitors in ?water-in-salt? electrolytes with current pulse induced electro-physical modification of metal-organic-frameworks	Uday Narayan Maiti	SERB	Physics	3416468
Synthesis of mesoporous transition metal doped g-C3N4 and Photocatalytic phosphinylation of alkenes and synthesis of biologically relevant heterocycles	Dipankar Srimani	SERB	Chemistry	1830000
Annotated Atlas of the Heritage Sites of Assam: Using GIS	Sukanya Sharma	State Innovation and Transformation Aayog (SITA)	Humanities and Social Sciences	4000000
Design and development of a bio-inspired hip protector for elderly people made of shear thickening fluid filled 3D-printed metamaterial	Prasenjit Khanikar	SERB	Mechanical Engineering	4526764
Photoactive Electron Donor-Acceptor (EDA) Complex as Photochemical Synthetic Tools	Bhisma Kumar Patel	SERB	Chemistry	6525270
Fabrication and Development of Affordable, Compact, and Eco-Friendly Polymer Bases, CO2 Electrical Sensor.	HOC NANO	NCERT	Centre for Nanotechnology	15000
AI/ML for Beamforming in 6G	Kuntal Deka	Opetushallitus Utbildnindsstyrelsen	Electronics and Electrical Engineering	1008000
Prototyping Drone Carried Organ Payload Container	Ajay Dashora	ICMR	Centre for Drone Technology	2052944

Collaborative Research for Accelerated Development of Materials & devices for Energy harvesting and conservation Technologies	Ankush Bag	DST-DAAD	Centre for Nanotechnology	8586383
Catalytic Hydrodeoxygenation of pyrolytic-oil produced from copyrolysis of agricultural residue and plastic waste	Kaustubha Mohanty	DST	School of Energy Science and Engineering	6866337
Development and performance evaluation of Ready mix thermal insulation foam plasters for energy efficient structures	Indu Siva Ranjani Gandhi	SERB	Civil Engineering	3619217
The implementation and evaluation of the interRAI , Child and Youth, Suite of Self-Administered Mental, Health Assessments	Parameswar K Iyer	DBT	JYOTI AND BHUPAT MEHTA SCHOOL OF HEALTH SCIENCES AND TECHNOLOGY	0
Design and fabrication of 2D photonic crystal devices for data center applications	Ramesh Kumar Sonkar	SERB	Electronics and Electrical Engineering	4773516
Rational drug discovery and development of potent inhibitors of an epigenetic marker, BRD2: A potential therapeutic target for glioblastoma	Krishna Pada Bhabak	ICMR	Chemistry	618000
Certificate course on Glocal Expert Program	Chandan Das	Japan	Chemical Engineering	274800
Mechanochemical synthesis of high entropy oxides with tunable entropies for energy harvesting using hybrid nanogenerators	Perumal Alagarsamy	SERB	Physics	3542000
Precision determination of lepton-proton chiral - radiative corrections in Effective Field Theory	Udit Raha	SERB	Physics	2388449
Sugars Conversion to Bio-based Monomeric molecules	Nageswara Rao Peela	SERB	Chemical Engineering	4020000
Development of Digital Twin for PEM fuel cell-battery hybrid energy system for vehicular applications	Sanjib Ganguly	SERB	Electronics and Electrical Engineering	2866900
Development of low cost sustainable and efficient electro-catalyst and proton exchange membrane for electrolyser assembly for producing Green Hydrogen	Mahuya De	OTHER	Chemical Engineering	5559400
Bio-analyte-triggered Turn-on Fluorogenic Processes with the Adjuvant Delivery of Specific Enzyme Inhibitors and Gasotransmitters for the Treatment of Cancer	Krishna Pada Bhabak	SERB	Chemistry	5640000
Targeting osteoblast associated NCAM1 for chemosensitization of acute myeloid leukemia cells in the endosteal niche	Nitin Chaudhary	ICMR	Biosciences and Bioengineering	761000

Distributed Authentication & Privacy Scheme (DAPS)	Ashok Singh Sairam	DST	Mathematics	840000
`Ringing', `Echoes' and `Shadows': a study on different properties of astrophysical compact objects	Sayan Kumar Chakrabarti	SERB	Physics	660000
Improving the substrate binding and catalytic reaction by electron-poor metal pincer complexes and reductively stable secondary-sphere hydrogen-bond donors	Animesh Das	DST	Chemistry	4475211
A Chatter Prediction Approach in the Milling Process using Machine Learning Algorithms	Rinku Kumar Mittal	IIT Guwahati	Mechanical Engineering	1100000
Development of a Higher Order Nonlinear MDOF Stability Model for a 5-Axis High-Speed Micromilling of Difficult-to-Cut Materials	Rinku Kumar Mittal	DST	Mechanical Engineering	3316102
Sustainable, Biodegradable and Affordable Substitutes for Single use Plastic using Castor Oil and Stubble Aggregate	Tamal Banerjee	DST	Centre for the Environment	3091737
Modeling and simulation of premelting dynamics with impurities	Satyajit Pramanik	SERB	Mathematics	660000
Hybrid cooling system design for Li-ion battery pack systems	Amaresh Dalal	SERB	Mechanical Engineering	660000
Development of the Microwave-Photonic Hybrid Wearable Sensor for in vivo Monitoring of Hip Stem Micromovements	Souptick Chanda	SERB	Biosciences and Bioengineering	2035240
Waste to Value-Added Chemicals: An One-Pot One-Step Strategy for the Pincer-Ruthenium and Pincer-Iron Catalyzed Transformation of Glycerol Selectively to Lactic Acid Along with a Tandem Conversion of Carbon Dioxide to Formic Acid	Akshai Kumar Alape Seetharam	SERB	Chemistry	5016264
Synthesis of New Heterocyclic Entities and Their Applications in Biological and Material Science	Abu Taleb Khan	DST	Chemistry	2387000
Cogenesis of Baryon Asymmetry and Dark Matter from Inflaton	Debasish Borah	SERB	Physics	660000
Matter Radii of Efimovian D0nn System Using Faddeev Equations	Udit Raha	SERB	Physics	660000
Study of Site-Selective Functionalization of C(Sp3)-H Bonds Using Transition-Metal-Catalysis	Tharmalingam Punniyamurthy	SERB	Chemistry	2978916

Catalytic Asymmetric Intramolecular Allylic Substitution Reactions	Subhas Chandra Pan	SERB	Chemistry	4189928
Phase Optimization and Performance Analysis of Intelligent Reflecting Surface Assisted Wireless Communication Systems over Generalized Fading Channels	Kuntal Deka	SERB	Electronics and Electrical Engineering	660000
Stimuli-responsive Prodrugs for the Turn-On Fluorogenic and Targeted Delivery of Anti-Inflammatory and Anti-Cancer Drugs with Hydrogen Sulfide (H2S)	Krishna Pada Bhabak	SERB	Chemistry	3487264
Development of Sm5Fe17 based composite magnets with ultrahigh coercivity for green energy generation applications	Perumal Alagarsamy	DRDO	Physics	3026600
Natural Ingredient based Reactive Coating for Controlled Customization of Robust Super-Wettability & Adhesion of Liquid and Air	Uttam Manna	SERB	Chemistry	6442782
Synthesis of nitrogen heterocyclic compounds from alkynes, nitriles and study of their biological activity	Anil Kumar Saikia	SERB	Chemistry	4873264
Development of smart transformer-based electric vehicle charging station with high PV penetration	Chandan Kumar	SERB	Electronics and Electrical Engineering	2871264
Security Enhancement Techniques for Multi-core Processors	John Jose	SERB	Computer Science and Engineering	1005000
Radical Induced Visible-Light Mediated Nitrile Trigger Cascade Synthesis of Heterocyclic Scaffolds	Bhisma Kumar Patel	SERB	Chemistry	5783492
Artificial synapse for brain-inspired neuromorphic electronics hardware based on skyrmion-domain	Tanmay Dutta	SERB	Electronics and Electrical Engineering	3201000
Development of Jute Clay Liners (JCL) for Waste Containment Applications	Tadikonda Venkata Bharat	JUTE	Civil Engineering	2228300
Experimental study on cyclic horizontal force-displacement characteristics of prototype U-FREIs with and without rotation	Sajal Kanti Deb	APWD	Civil Engineering	2833600
Sustainable Earthquake Resistant 3D-Printed Concrete Housing From Laboratory Testing to Industrial Application	Biranchi Narayan Panda	DST	Mechanical Engineering	2441996
Empowering Electronic Design Automation Software with Machine Learning Techniques	Chandan Karfa	Google	Computer Science and Engineering	1668000
Development of a Novel Process for Effective Aluminum Recovery and Green Hydrogen Production from Aluminum Waste using a Thermochemical Cycle	Farrukh Khalid	SERB	School of Energy Science and Engineering	3036000

Development and Manufacturing Technology for High Energy Density & Fast Charging Li-ion Batteries (>500 Wh kg-1) for Underwater Vehicles, and their Recycling Strategies	Ranjith Thangavel	Ministry of Earth Sciences	School of Energy Science and Engineering	7590400
Modeling human liver microarchitecture and cellular physiology in vitro using 3D bioprinting for drug toxicity and high throughput drug screening applications	Biman Behari Mandal	DST	Biosciences and Bioengineering	30635040
Inter-organelle communications: deciphering their physiological relevance in Parkinson?s disease model	Shirisha Nagotu	SERB	Biosciences and Bioengineering	4878764
SwarnaJayanti Fellowship Grant	Biman Behari Mandal	SERB	Biosciences and Bioengineering	2500000
Voltammetric And Conceptual DensityFunctional Studies On Electrocatalysis OfSurfactants At The Graphene Screen-PrintedGraphene Electrode For Detection Of PersistentOrganic Pollutants	Kaustubha Mohanty	SERB	Chemical Engineering	335000
Development of porous, ordered, monolithic MXene based sodium ion hybrid capacitors	Uday Narayan Maiti	BRNS	Centre for Nanotechnology	2834126
DESIGN OF AN AUTOMATIC COMMUNICATION SYSTEM THROUGH CLOUD COMPUTING USING SENSOR BASED AUTOMATED INPUT FOR EFFICIENT OPERATION OF RANGANADI HEP WITH DUE EMPHASIS ON DOWNSTREAM CONCERNS UPTO CONFLUENCE WITH SUBANSIRI RIVER	Arup Kumar Sarma	NEEPCO	Civil Engineering	6193824
Research and Design of Disability-Inclusive Virtual Shopping Experience	Keyur Babulal Sorathia	Walmart Global Technology Services	Design	3300000
Reaction Kinetics Pathways of Liquids Organic Hydrogen Carriers for Effective Hydrogen Storage Using Ab Initio Calculations	Tamal Banerjee	SERB	Chemical Engineering	335000
Supervised and Federated Learning Approaches in EDA Tool Development	Chandan Karfa	Google	Computer Science and Engineering	2500000
Study of Metallaphotoredox Catalysis for Tandem C-H Functionalization and Annulation	Tharmalingam Punniyamurthy	SERB	Chemistry	5400000
Fuel Triggered Temporal Control over Self-Assemblies to Develop Life-Like Systems	Debapratim Das	SERB	Chemistry	1830000

Traceable Value Chain for safe pork in the North Eastern Region of India	Sukumar Nandi	ICAR	Computer Science and Engineering	4015142
Affordable Renewable Energy Materials and Devices	Parameswar K Iyer	DST	Chemistry	7562390
Design and devolvement of a solar-powered pottery Chaak	Sashindra Kumar Kakoty	ASTEC	School of Agro and Rural Technology	328915
Development of advanced biofuels and bio lubricants from high lipid producing microalgal strain through HTL and Co-HTL process	Kaustubha Mohanty	GSBTM	Chemical Engineering	3899586
Development of an Integrated Water Treatment and fuel Production System using Ceramic Membranes and Microchannel Reactors.	Selvaraju Narayanasamy	DST	Biosciences and Bioengineering	6891752
Development and Implementation of AI-Driven Smart Farming Solutions Utilizing IoT and Digital Extension Services for Enhanced Agricultural Productivity: A Study on Assam, Chhattisgarh, Rajasthan and Uttar Pradesh	Pratul Chandra Kalita	ICSSR	School of Business	1500000
Paper-Based Microfluidic Detection of Adulterants/Pesticides in Tea Samples	Pranab Kumar Mondal	NPTEL	Centre for Educational Technology	400000
Hardware Accelerator Synthesis for Machine Learning Models	Chandan Karfa	NPTEL IIT madras	Computer Science and Engineering	400000
Design, fabrication, and installation of raw MSW to charcoal conversion system at NTPC Ramagundam township	Senthilmurugan Subbiah	NTPC Ramaguntam	School of Energy Science and Engineering	7479000
"Development of pigmented rice based antioxidant-rich traditional and innovative food products as adaptogens for reducing oxidative stress".	Siddhartha Singha	DRDO	School of Agro and Rural Technology	13764000
Understanding multiphase flow in curved tubular reactors in the presence of diffusion and reaction	Raghvendra Gupta	SERB	Centre for Nanotechnology	3406926

Completed Sponsored Projects: 118

Project Title	**PI Name**	**Funding Agency**	**Department**	**Amount**
ULTRASONIC WASHING FOR DESULFURIZATION OF COAL	Prabu Vairakannu	Central Mine Planning & Design Institute Limited (CMPDI)	Chemical Engineering	1,97,35,000.00

CUMULATIVE IMPACT ASSESSMENT FOR CASCADING INTERVENTIONS IN HIMALAYAN RIVERS (CI2HR)	Subashisa Dutta	Ministry of Environment, Forest and Climate Change, GOI	Civil Engineering	2,45,01,040.00
Development of multi-material wire arc additive manufacturing process including the effect of multi-physics problem of droplet interaction, metallurgical model and free surface profile using phase field method	Swarup Bag	SERB	Mechanical Engineering	49,61,260.00
Development of high performance flexible photodetector array through plasmonic hot-carrier engineering in two-dimensional perovskites	Pravat Kumar Giri	DST	Physics	44,00,301.00
Precision studies for processes at present and future collider experiments	Meduri Chakravartula Kumar	DST	Physics	30,16,992.00
Collective dynamics of self-propelled droplets in complex microfluidic environments	Shubhadeep Mandal	SERB	Mechanical Engineering	40,22,355.00
Generalization of Cartwright's Theorem	Rajesh Kumar Srivastava	SERB	Mathematics	6,60,000.00
DC side low-frequency ripple reduction in SBI and q-SBI based PV system with non-linear local loads and distorted PCC voltage.	Ravindranath Adda	SERB	Electronics and Electrical Engineering	35,09,000.00
Distribution of certain partition functions	Rupam Barman	SERB	Mathematics	27,30,882.00
3D printed patient specific meniscus implants with autologous biological cues for total and partial meniscus regeneration	Biman Behari Mandal	SERB	Biosciences and Bioengineering	49,17,264.00
Enhancing Security Features of On-hip Networks in Modem Multicore Processors	John Jose	SERB	Computer Science and Engineering	50,71,924.00
Assembly of Nanoscale Particles for Theranostic and Energy Applications Sanction order no JCB/2019/000039	Arun Chattopadhyay	SERB	Centre for Nanotechnology	95,00,000.00
Biomimetic Grasp Analysis in Multi-Fingered Robotic Hands as Bilinear Matrix Inequality Problems	Shyamanta Moni Hazarika	SERB	Mechanical Engineering	6,60,000.00
Weak Galerkin Finite Element Method for Westervelt’s Equation	Bhupen Deka	SERB	Mathematics	6,60,000.00

Assessment of Stability, Accuracy and Convergence of An Immersed Boundary Lattice Boltzmann Solver for Moving Boundary Problems	Dipankar Narayan Basu	SERB	Mechanical Engineering	6,60,000.00
Computing Multiplicities For Tensor Products On Special Linear Groups	Vinay Vilas Wagh	SERB	Mathematics	6,60,000.00
Collective neutrino flavor conversion in astrophysics and cosmology	Sovan Chakraborty	DST	Physics	6,60,000.00
Risk-sensitive stochastic games for continuous-time stochastic processes.	Chandan Pal	SERB	Mathematics	6,60,000.00
Comprehensive Exploration of Water-Stable, Functionalized Metal-Organic Frameworks for Fluorometric Detection of Heavy Metal Ions	Shyam Prosad Biswas	SERB	Chemistry	39,60,000.00
State Transfer on Graphs of Groups, Rings and Partial Cartesian Products	Bikash Bhattacharjya	SERB	Mathematics	6,60,000.00
Method for Preparing Earthquake Risk Scenarios in States and UTs of lndia	Hemant B. Kaushik	NDMA	Civil Engineering	41,77,200.00
Transient Analysis of Hydrodynamic Coefficients Connected to Cylindrical Breakwaters	Swaroop Nandan Bora	SERB	Mathematics	10,05,000.00
Robust Computational Methods for 2D Singularly Perturbed Parabolic Differential Equations	Natesan Srinivasan	SERB	Mathematics	10,05,000.00
Radial solution to the wave equation and spherical mean operator on symmetric spaces	Pratyoosh Kumar	SERB	Mathematics	6,60,000.00
Contraction Analysis and Resilient Control Design for Nonlinear Cyber-physical Systems under Denial-of-Service	Indrani Kar	SERB	Electronics and Electrical Engineering	6,60,000.00
Games and Controller Synthesis	Purandar Bhaduri	SERB	Computer Science and Engineering	6,60,000.00
Investigating the post-inflationary era with axions and ALPs	Arunansu Sil	SERB	Physics	23,96,427.00
Attenuation Ability of Municipal Solid Waste Landfill Liners for Viral Pathogens	Tadikonda Venkata Bharat	SERB	Civil Engineering	48,00,000.00
Intelligent Disturbance Observer based Adaptive Control of DC-DC Power Converter for Nonlinear Loads	Praveen Kumar	SERB	Electronics and Electrical Engineering	10,05,000.00

Electroweak baryogenesis as a portal to neutrino and dark matter	Arunansu Sil	SERB	Physics	6,60,000.00
Development of a novel dual fluidized bed gasification technology package for effective utilization of biomass and NE coal for efficient energy harvesting.	Pankaj Kalita	SERB	School of Energy Science and Engineering	51,31,240.00
Intelligent Reflecting Surface Enabled Simultaneous Wireless Energy and Information Transfer in Next Generation IoT Networks: System Design, Optimization and Performance Analysis	Salil Kashyap	SERB	Electronics and Electrical Engineering	23,76,180.00
Experimental and Numerical Appraisal of Heat Transfer Enhancement and Deterioration in Double-cooled Supercritical Forced-flow Channels	Amaresh Dalal	SERB	Mechanical Engineering	68,42,264.00
Testing and Characterization of Two-Dimensional Layered Materials Based Gas-Sensors	Ravindra Kumar Jha	IIT Guwahati	Electronics and Electrical Engineering	12,50,000.00
"Development of high energy density and safer Solid-state battery for EV and ESS applications	Ranjith Thangavel	Indian Institute Of Technology Guwahati	School of Energy Science and Engineering	15,00,000.00
DEVELOPMENT OF NOVEL IMAGING MODELS FOR DIAGNOSTIC ULTRASOUND ELASTOGRAPHY	Manish Bhatt	Indian Institute Of Technology Guwahati	Electronics and Electrical Engineering	9,40,000.00
A STUDY OF RANDIC MATRIX AND ABC MATRIX OF GRAPHS	Bikash Bhattacharjya	SERB	Mathematics	10,05,000.00
Bio-surfactant mediated enhanced oil recovery for Assam oil reservoirs	Lalit Mohan Pandey	DBT	Centre for the Environment	36,40,000.00
Synthesis of Enantioriched Unsaturated Oxygen and Nitrogen Containing Heterocycles	Tharmalingam Punniyamurthy	CSIR	Chemistry	14,00,000.00
Towards Reinstatement of Ancient Soil Classification System	Tadikonda Venkata Bharat	AICTE	Centre for Indian Knowledge Systems	17,27,200.00
Investigating the role of UTF1 in the generation of human induced pluripotent stem cells	Rajkumar Parshottambhai Thummer	DST	Biosciences and Bioengineering	52,33,905.00
Systematic Investigation of Oil/Water Separation Performances of a Family of Superhydrophobic Metal-Organic Framework (MOF) Based Composites	Shyam Prosad Biswas	SERB	Chemistry	35,20,264.00

Utilization of CO2 by Electrocatalytic Conversion to Value-Added Products	Chandan Mukherjee	SERB	Chemistry	22,22,000.00
'Integrated approach for extraction of valuable chemicals using Subcritical water extraction, followed by production of biobutanol from Scenedesmus sp. using genetically engineered Clostridium strain	Vaibhav Vasant Goud	DST/GITA	School of Energy Science and Engineering	35,57,580.00
Applicability of Group-7 Transition Metals (Mn and Re) for the Utilization of Carbon Dioxide in Organic Synthesis	Dipankar Srimani	SERB	Chemistry	21,01,000.00
Online Health Monitoring and Point-of-use Testing for Batteries Using Chirp Signals	Resmi Suresh M.P	SERB	Chemical Engineering	38,28,260.00
Development of an Artificial Intelligence(AI) Model to Measure and Analyse the Tissue Movements in the Eye Region for Healthcare Applications.	Debanga Raj Neog	SERB	Mehta Family School of Data Science and Artificial Intelligence	19,81,470.00
Design of Educational Metaverse as an extension of Virtual Reality (VR) zone	Keyur Babulal Sorathia	Guwahati Planetarium Management Society	Design	1,00,00,000.00
Nanotechnological interventions in dental and bone metal implants: Tailoring smart, multifunctional interfaces towards improved osseointegrative and anti-bacterial properties	Biman Behari Mandal	DBT	Biosciences and Bioengineering	38,25,240.00
Shastri Covid-19 Pandemic Response Grant (SCPRG): Call for Innovative Solutions	Lalit Mohan Pandey	CPRI	Biosciences and Bioengineering	8,41,930.00
Synthesis, supramolecular polymerization and optoelectronics applications of peri-naphthoindigo derivatives	Kingsuk Mahata	SERB	Chemistry	42,64,634.00
Coursera	HOCCET	Coursera	Centre for Educational Technology	0
Ion Therapy: Synthesis and Optimization of Small molecule-based Selective Anionophores for Next-Generation Anticancer Agents	Debasis Manna	SERB	Chemistry	46,94,151.00
Evaluation of Column-to-Beam Flexural Capacity Ratio for Strong-Column Weak-Beam Design in RC Buildings	Hemant B. Kaushik	SERB	Civil Engineering	40,48,264.00
The Development of Multidisciplinary Education in Circular Economy	Sudip Mitra	Finland	Centre for Disaster Management & Research	2,31,375.00
Understanding on/off kinetics of LOV-domain proteins to construct optogenetic tools	Rajiv Kumar Kar	SERB	JYOTI AND BHUPAT MEHTA SCHOOL OF HEALTH	28,08,340.00

			SCIENCES AND TECHNOLOGY	
Study on the role of viscoelastic behaviour of aqueous polymer solution in pore level microscopic displacement of crude oil from reservoir rocks	Abhijit Kakati	IIT Guwhati	Chemical Engineering	5,00,000.00
Internet-of-Things Network Scheduling in a Reinforcement Learning-aided Mobile Edge Computing System	Arghyadip Roy	SERB	Mehta Family School of Data Science and Artificial Intelligence	19,48,470.00
Low-Cost Scalable Manufacturing of High-Aspect Ratio Microneedles for Minimally Invasive Transdermal Drug Delivery Applications	Rinku Kumar Mittal	SERB	Mechanical Engineering	33,04,240.00
Motor Imagery BCI for Neuroprostheses and Robotic Neurorehabilitation	Shyamanta Moni Hazarika	IIT Delhi	Mechanical Engineering	28,15,000.00
Secure and Reliable Techniques for Deep Learning-based 5G and Beyond Wireless Systems	Manoj B R	SERB	Electronics and Electrical Engineering	30,71,640.00
Edge Computing Enabled Active Distribution Network Monitoring Considering Cyber-Threats	Sreenath J. G	SERB	Electronics and Electrical Engineering	7,80,520.00
Understanding the anatomy of an aseismically creeping fault?A case study from the Churachandpur-Mao fault in the Indo-Burma Wedge	Sayantan Chakraborty	SERB	Civil Engineering	33,00,000.00
Study of quantum noise control techniques using Low Density Parity Check codes	Arun B. Aloshious	DST	Electronics and Electrical Engineering	19,49,920.00
Development of a novel bio-composite thermal energy storage material and its applications in isothermal drying of agricultural products and passive cooling of building	Pankaj Kalita	ASTEC	School of Energy Science and Engineering	6,55,500.00
Cancer immunotherapy: Inhibition of Immunosuppressive Indoleamine 2,3-Dioxygenase 1 Enzyme Activity by targeting the Heme and Apo-form	Debasis Manna	CSIR	Chemistry	26,66,000.00
Design of Various Algorithms for Terahertz Communication in 6G and Beyond	Kuntal Deka	DST	Electronics and Electrical Engineering	4,29,000.00
Characterizing the functional role of the novel dopaminergic transmembrane protein p20MANI (Myelin-Associated Neurite Inhibitor)	Subrata Pramanik	SERB	JYOTI AND BHUPAT MEHTA SCHOOL OF HEALTH SCIENCES AND TECHNOLOGY	32,49,400.00
Material Resource Mapping for Sustainable PMGSY Road Network	Anjan Kumar Siddagangaiah	NRRDA	Civil Engineering	33,80,000.00

Generation of non-diverging circular airy orbital angular momentum beams for next generation wireless communication technology.	Ashwini Sawant	SERB	Electronics and Electrical Engineering	29,97,300.00
Advanced imaging methods for fatty liver diagnosis with ultrasound elastography	Manish Bhatt	SERB	Electronics and Electrical Engineering	20,02,000.00
A Pilot-scale comparative study on dumping of fresh and partially stabilized MSW followed by pretreatment of landfill leachates by conventional and electrocoagulation methods followed by upflow anaerobic filter	Ajay Kalamdhad	DST	Civil Engineering	93,52,886.00
Mathematical modelling of flow and transport in porous media: A homogenization approach	Satyajit Pramanik	SERB	Mathematics	17,09,400.00
DEVELOPMENT OF HIGH MOLECULAR WEIGHT AQUEOUS VISCOELASTIC POLYMER COMPOSITES FOR ENHANCED OIL RECOVERY FROM MATURED INDIAN RESERVOIR	Abhijit Kakati	SERB	Chemical Engineering	32,70,900.00
Unified platform for Social Media Content Analytics	Sanasam Ranbir Singh	DEITY	Computer Science and Engineering	1,76,50,000.00
Hydrological experiment and river discharge modeling for SWOT and Sentinel-3A/B missions: Brahmaputra River	Subashisa Dutta	ISRO	Civil Engineering	11,28,000.00
Experimental and Numerical Investigation for Miscible Carbon Dioxide-Enhanced Oil Recovery (CO2-EOR) and Simultaneous Geo-Sequestration in North-East India	Sumit Kumar	SERB	Chemical Engineering	32,36,200.00
Indian Nanoelectronics Users Programme - Idea to Innovation (INUP-i2i)	Dipankar Bandypadhyay	DEITY	Centre for Nanotechnology	9,23,00,000.00
Powering the Ultra-Low-Power Wireless System/IoT Node by Scavenging Multi-Band Radio Frequency (RF) Energy	Roy Paily Palathinkal	SERB	Electronics and Electrical Engineering	19,37,760.00
Development of a Low Cost and Field Deployable Sensor for Detection of Formaldehyde Both in Liquid and Gaseous Forms	Pranab Goswami	DBT	Biosciences and Bioengineering	94,79,720.00
Development of Low Cost and Portable Field Deployable Methanol and Malaria Sensing Kits	Pranab Goswami	DBT	Biosciences and Bioengineering	1,00,74,320.00
Lignocellulosic biomass utilization for lactic acid and bioethanol production	Arun Goyal	DBT	School of Energy Science and Engineering	37,10,240.00

Developing Next-generation High Energy Density Sodium Metal Batteries using Dendrite Free and Safer Sodium Metal Anode	Ranjith Thangavel	SERB	School of Energy Science and Engineering	30,80,000.00
Experimental Investigations on Flow Boiling Instabilities in Mini- and Microchannels	Manmohan Pandey	SERB	Mechanical Engineering	74,43,260.00
Design and Development of Smart Morphing Wing based on Shape Memory Alloy Actuators	Atanu Banerjee	SERB	Mechanical Engineering	40,92,264.00
Bioengineered skin equivalent for treatment of burn injuries	Biman Behari Mandal	DBT	Biosciences and Bioengineering	17,00,000.00
Fabrication and demonstration of a state-of-the-art C-band optical modulator in silicon photonics platform for 400G networks	Ramesh Kumar Sonkar	SERB	Electronics and Electrical Engineering	39,27,264.00
To capture and investigate physiologically relevant interactome in UPF3B knockout cells mimicking mental retardation (MR) patients condition.	Kusum Kumari Singh	ICMR	Biosciences and Bioengineering	43,43,788.00
FIST 2018: Mechanical Engineering Department	HOD Mechanical	DST	Mechanical Engineering	5,70,00,000.00
Quantification of subsoil response of Birpur, Basopatti and adjacent regions of Madhubani, Bihar located adjacent to central seismic gap towards minimizing future earthquake induced damages	Abhishek Kumar	Ministry of Earth Sciences	Civil Engineering	62,36,440.00
Analysis of genome-wide restoration of estrogen regulated gene expression network post epigenetic reactivation of ERalpha in ER-negative breast cancer cells	Anil Mukund Limaye	ICMR	Biosciences and Bioengineering	24,68,465.00
Centre for depression diagnosis and medication adherence	Hanumant Singh Shekhawat	DBT	Electronics and Electrical Engineering	1,05,22,600.00
Astronomical Orientations of Ancient Temples	Tadikonda Venkata Bharat	AICTE	Centre for Indian Knowledge Systems	16,50,000.00
RECOMBINANT NEWCASTLE DISEASE VIRUS BASED BREAST CANCER THERAPY: A NOVEL ONCOLYTIC VIRAL APPROACH	Sachin Kumar	BBCI	Biosciences and Bioengineering	3,00,000.00
Development of a numerical model and the stability analysis of dynamic keyhole in deep penetration laser welding process using the phase-field method	Swarup Bag	SERB	Mechanical Engineering	6,60,000.00

Development of a cost-effective device for oxygen separation from air: a strategic technological solution to control the food spoilage	Tapas Kumar Mandal	DST	Chemical Engineering	19,13,801.00
Development of low cost transition metal based catalysts for electro-oxidation of poly-alcohols for application in Fuel Cells	Mahuya De	DST	School of Energy Science and Engineering	55,38,764.00
ROAD SURFACE QUALITY ASSESSMENT OF SELECTED BORDER ROADS SECTIONS OF INDIA THROUGH ADVANCED REMOTE SENSING TECHNIQUE	Rishikesh Bharti	DTRL	Civil Engineering	59,02,028.00
Reheating the universe:Decoding the observational signatures	Debaprasad Maity	SERB	Physics	10,17,491.00
Cognitive Interfaces for Software Engineering with Multimodal Brain Imaging	Cota Navin Gupta	DST	Biosciences and Bioengineering	41,71,719.00
Design and Development of Next Generation Cost Effective Reconfigurable On-Board Battery Charger with Health and Fault Monitoring	Ravindranath Adda	DEITY	Electronics and Electrical Engineering	68,87,344.00
Studies of Color Migration of Different Colored Polymers in Food Stimulant	Vimal Katiyar	,,,	Centre for Sustainable Polymers	3,00,000.00
Development of a pilot plant for production of high value, flaked/powder and stabilized liquid or infusion type products from wide variety of plants with exotic flavour aroma, bioactivity or functionality from indigenous plants of Hailakandi district	Siddhartha Singha	DST	School of Agro and Rural Technology	64,64,040.00
N/A	Satyajit Pramanik	,,,	Mathematics	2,35,000.00
Designing of Educational Metaverse as an extension of VR Zone	Keyur Babulal Sorathia	Govt. of Assam	Design	1,00,00,000.00
Empowering Girls to Reduce the Gender Gap in IT and ITES Sectors in South Asia Region: Training and E-Content Development Programme	Gaurav Trivedi	TEIN Cooperation Center	Electronics and Electrical Engineering	3,85,000.00
Political Economy of Land and Development in Assam	Vasundhara Jairath	ICSSR	Humanities and Social Sciences	6,00,000.00
Women, local governance and livelihood strategies in conflict zones: An Assessment of Karbi Anglong District of Assam	Pahi Saikia	ICSSR	Humanities and Social Sciences	4,90,720.00
DST-Energy Storage Platform on Hydrogen	P. Muthukumar	DST	Mechanical Engineering	1,65,94,920.00

Prime Minister Awaas Yojana (PMAY) in Assam: A Study of Its Reach and Impact	Bodhisattva Sengupta	ICSSR	Humanities and Social Sciences	15,00,000.00
Designing of Educational Metaverse as an extension of VR Zone	Keyur Babulal Sorathia	Govt. of Assam	Design	1,00,00,000.00
AI enabled advanced aquaponics ecosystem for the self-reliance of SC community in central and lower Assam	Gaurav Trivedi	DST	Electronics and Electrical Engineering	2,68,47,040.00
Designing of Educational Metaverse as an extension of VR Zone	Keyur Babulal Sorathia	Govt. of Assam	Design	1,00,00,000.00
PAC meeting for mid term monitoring and evaluation of project completion report (PCR) of the project under CRG: Chemical Engineering (CEE) during March 18-19, 2024	Vimal Katiyar	SERB	Chemical Engineering	17,74,000.00
Design of a framework to resist image-based adversarial attacks on deep learning models	Arijit Sur	DST	Computer Science and Engineering	29,28,821.00
Unravelling the Regulatory Mechanism that Connects Ribosome Biogenesis and Stringent Response with Bacterial Cell Growth	Anand Baskaran	Ignite Life Science Foundation	Biosciences and Bioengineering	10,00,000.00
Combined Synchrosqueezing and HMC based Bayesian Updating for Condition Assessment of Reinforced Concrete Road Bridge	Arunasis Chakraborty	SERB	Civil Engineering	32,01,520.00
Design and Development of Biogas Driven Hybrid Solar Dryer for North-Eastern Climate Condition	P. Muthukumar	DBT	School of Agro and Rural Technology	35,41,000.00

PART IV

Administrative and Technical Staffs (Group A)
Degree Awarded
Progress of Construction Work
Summary of Institute Accounts

Administrative Staff (Group A)

Sl. No.	Name	Designation	Dept./ Section
1	Mr. Krishan Kumar Tiwari	Registrar	Registrar's Office
2	Mr. Dibya Jyoti Goswami	Joint Registrar	F&A
3	Mr. Dilip Boro	Joint Registrar	Students' Affairs
4	Mr. Kuntil Bhuyan	Joint Registrar	Stores & Purchase
5	Mr. Dhrubajyoti Sharma	Joint Registrar	Administration
6	Mr. T Tongkholun Haokip	Joint Registrar	Establishment
7	Mr. Prakash Hazarika	Joint Registrar	Administration (on deputation)
8	Mr. Gunamani Das	Deputy Registrar	EO-cum-SRC. Additional charge of Student Affairs
9	Mr. Labanu Kishore Konwar	Assistant Registrar	II&SI
10	Dr. Subhajit Choudhury	Assistant Registrar	Academic Affairs
11	Mr. Pranab Borgohain	Assistant Registrar	Academic Research
12	Mr. Sanjay Mandal	Assistant Registrar	PRBR
13	Ms. Monalisa Kakati	Assistant Registrar	Faculty Affairs
14	Ms. Nandeeta Das Salhotra	Assistant Registrar	AER
15	Ms. Amaya Phukan	Assistant Registrar	Director's Office
16	Mr. Kushal Ch. Das	Assistant Registrar	S&P
17	Mr. Dipon Lal Boishya	Assistant Registrar	Internal Audit
18	Mr. Dip Jyoti Dutta	Assistant Registrar	R&D
19	Mr. A. Wanshai Shynret	Assistant Registrar	Academic Affairs (On lien)
20	Ms. Nibha Devi	Assistant Registrar	Administrative
21	Mr. Jiban Ch. Barman	Assistant Registrar	Establishment
22	Mr. Ritu Porna Sarma	Assistant Registrar	Students' Affairs
23	Mr. Jiten Sarmah	Assistant Registrar	Finance & Accounts

Sl. No.	Name	Designation	Dept./ Section
24	Mr. Manash Jyoti Pathak	Assistant Registrar	R&D
25	Dr. Tamal Kr. Guha	Librarian	Central Library
26	Dr. Sanjib Kr. Deka	Asst. Librarian	Central Library
27	Mr. Chandan Goswami	Assistant Librarian	Central Library
28	Mr. Chandan Das	Assistant Librarian	Central Library
29	Ms. Pallabita Barooah Chowdhury	Students' Counsellor	Student Affairs
30	Ms. Namrata Naomi Rynjah	Students' Counsellor	Student Affairs
31	Dr. Nesmita Das	Students' Counsellor	Student Affairs
32	Mr. Rakesh Kakati	Students' Counsellor	Student Affairs

Technical Staff (Group A)

Sl. No.	Name	Designation	Dept./ Section
1.	Dr. Anuj Kr. Baruah	CMO(SAG)	Medical
2.	Dr. Surojit Majumdar	Sr. Medical Officer	Medical
3.	Dr. Pallabi Sarmah	Sr. Medical Officer	Medical
4.	Dr. Palash Bortamuly	Medical Officer	Medical
5.	Dr. Hitakalpa Baishya	Senior Medical Officer	Medical
6.	Mr. Lallan Kumar G Singh	Superintending Engineer	IPM
7.	Mr. Nirupam Roy	Additional Supdt. Engg.	IPM
8.	Mr. Aditya Kr. Gogoi	Exe. Engineer	IPM
9.	Mr. Dibyajyoti Dutta	Exe. Engineer (Civil)	IPM
10.	Mr. Nayan Kr. Sarma	Exe. Engineer (Civil)	IPM
11.	Mr. Kumud Barman	Asst. Exe. Engineer (Elect.)	IPM
12.	Mr. Bhaskar Choudhury	Asst. Exe. Eng. (Civil)	IPM
13.	Mr. Amal Sarma	Assistant Executive Engineer	IPM
14.	Mr. Jayanta Sarkar	Assistant Executive Engineer	IPM

Sl. No.	Name	Designation	Dept./ Section
15.	Dr. Laxmi Narayan Sharma	Sr. Technical Officer	EEE
16.	Dr. Sanjib Das	Sr. Technical Officer	EEE
17.	Dr. Pallav Kr. Dutta	Sr. Technical Officer	CCC
18.	Dr. Sidananda Sarma	Senior Technical Officer	Physics
19.	Dr. Arun Ch. Borsaikia	Senior Technical Officer	CE
20.	Dr. Lepakshi Barbora	Senior Technical Officer	SESE(Energy)
21.	Mr. Chandan Borgohain	Technical Officer Gr. I	CIF
22.	Dr. Babulal Das	Technical Officer Gr. I	Chemistry
23.	Mr. Kaustubh Acharyya	Technical Officer Gr. I	Nanotechnology
24.	Dr. Deepmoni Deka	Technical Officer Gr. I	Environment
25.	Ms. Josephine S.	Technical Officer Gr. I	EEE
26.	Mr. Sanjoy Das	Technical Officer Gr. I	CCC
27.	Mr. Manab Mohan Borah	Technical Officer Gr. I	CCC
28.	Dr. Kula Kamal Senapati	Technical Officer Gr. I	CIF
29.	Ms. Jonali Saikia	Technical Officer Gr. I	CE
30.	Dr. Rituraj Saikia	Technical Officer Gr. I	ME
31.	Mr. Jishu Krishna Ghosh	Technical Officer Gr. I	CCC
32.	Mr. Nanu Alan Kachari	Technical Officer Gr. I	CSE
33.	Mr. Bhriguraj Borah	Technical Officer Gr. I	CSE
34.	Mr. Pranjol Paul	Technical Officer Gr. I	ME
35.	Dr. Madhuriya Pratim Das	Technical Officer Gr. I	EEE
36.	Mr. Guna Kanta Saikia	Technical Officer Gr. I	CCC
37.	Ms. Ritumoni Kalita	Technical Officer Gr. I	Chemical Engineering
38.	Dr. Pranjoli Das	Technical Officer Gr. I	Nanotechnology
39.	Mr. Iqbal Inam	Technical Officer Gr. I	PRBR
40.	Md. Jeherul Islam	Technical Officer Gr. I	CCC
41.	Mr. Harsaraj Biswanath	Technical Officer Gr. I	Chemical Engineering
42.	Ms. Abhilasha Mohan Baruah	Technical Officer Gr. I	Chemistry
43.	Dr. Dolly Gogoi	Technical Officer Gr. I	CIF
44.	Mr. Debarshi Baruah	Technical Officer Gr. I	Energy
45.	Mr. Dhrubajyoti Pathak	Technical Officer Gr. I	CCC
46.	Mr. Kuldeep Kalita	Technical Officer Gr. II	CE
47.	Mr. Samarjyoti Kalita	Technical Officer Gr. II	CE
48.	Mr. Bishnu Tamuli	Technical Officer Gr. II	Design
49.	Dr. Hitesh Sharma	Technical Officer Gr. II	Design
50.	Mr. Pankaj Kumar	Technical Officer Gr.-II	Chemical Engineering
51.	Mr. Basab Bijoy Purkayastha	Technical Officer Gr.-II	Physics
52.	Mr. Aditya Kalita	Technical Officer Gr.-II	Physics
53.	Mr. Paban Bujor Barua	Technical Officer Gr.-II	EEE
54.	Mr. Gobinda Chhetry	Technical Officer Gr.-II	Nanotechnology

Sl. No.	Name	Designation	Dept./ Section
55.	Ms. Sayanika Das	Technical Officer Gr.-II	Nanotechnology
56.	Dr. Dhrubajyoti Bordoloi	Technical Officer Gr.-II	ME
57.	Mr. Jyotirmoy Kakati	Technical Officer Gr.-II	ME
58.	Mr. Deepjyoti Saikia	Technical Officer Gr.-II	CCC
59.	Ms. Aparna Barik	Technical Officer Gr.-II	CCC
60.	Ms. Lipika Nath	Technical Officer Gr.II	Chemistry
61.	Mr. Utpal Kr. Sarma	Technical Officer Gr.II	EEE
62.	Mr. Amal Kalita	Technical Officer Gr.II	ME
63.	Dr. Lukumoni Borah	Technical Officer Gr.II	Chemical Engineering
64.	Mr. Atul Ch. Deka	Technical Officer Gr.II	Physics
65.	Mr. Naba Kr. Thakuria	Technical Officer Gr.II	CCC
66.	Mr. Lokesh Chakravorty	Technical Officer Gr.II	Physics
67.	Mr. Romen Ch. Dutta	APEO	Gymkhana
68.	Dr. Diganta Saikia	APEO	Gymkhana
69.	Mr. Nandan Kanan Das	Workshop Superintendent	ME
70.	Mr. Yengkhom Lalen Singh	Senior Security Officer	Security Section

DEGREE AWARDED

List of students who have fulfilled the requirements for award of B.Tech degree in Computer Science and Engineering

S.No.	Roll No	NAME
1	160101041	MANTRI SANDEEP NAIDU
2	170101023	FUGARE ASHISH DILEEP
3	180101018	DARSHIT NAGAR
4	180101029	HARSHAL SHARMA
5	190101071	RANJAN NATHANI
6	190101073	RISHAV RAJ
7	190101078	RUDRA UMESH MAHAJAN
8	200101047	KAKUNURI MANIDEEP REDDY
9	200101048	KALANGI SATHVIKA
10	200101063	MANAN PARIHAR
11	200101067	MOHIT KUMAR
12	200101113	YASH GARG
13	200101114	YENUGONDA SUMA SHREE
14	210101001	AASNEH PRASAD
15	210101002	ABHI AGARWAL
16	210101003	ABHINAV KUMAR

17	210101004	ABINASH SONOWAL
18	210101005	ACHINTYA GUPTA
19	210101006	ACHYUT DHIMAN
20	210101007	ADITTYA GUPTA
21	210101008	ADITYA AGRAWAL
22	210101009	ADITYA GUPTA
23	210101010	ADITYA GUPTA
24	210101012	AJMERA RAKSHITH
25	210101013	AMIT KUMAR
26	210101014	ANAND KESHAV
27	210101015	ANKITA KANOJI
28	210101016	ANOOP SINGH
29	210101017	ANSHU SINGH RAGHAV
30	210101018	ANUMULA ADARSH
31	210101019	ANUP KUMAR
32	210101020	ARANI RAJESH KUMAR
33	210101021	ARNAV SHARAN
34	210101022	ARVIND KUMAR
35	210101023	ASHISH BHARTI
36	210101024	ATHARV JAIN
37	210101025	AVINAV YADAV
38	210101026	AYUSH ANAND SINGH
39	210101027	BADDIGAM SIDDARDHAREDDY
40	210101028	BALAJI.S
41	210101029	BANAVATHU SIMHADRI NAIK
42	210101030	BHARAT NARAH
43	210101031	BHOGI SAI SATHWIK
44	210101033	BUSSA SAI SANTHOSH
45	210101034	DARSHAN PATNI
46	210101035	DEVENDRA SWAMI
47	210101036	DEVIKA SINGH
48	210101037	DIVYA GARG
49	210101038	DURGESAM AJAY
50	210101039	FAIZAN AMIR
51	210101040	GAURAV
52	210101041	GAUTAM JUNEJA
53	210101042	GAUTAM SHARMA
54	210101043	GHOLAP SARVESH SARJERAO
55	210101044	GUTTHULA NAGA SATYA PREETAM
56	210101045	HARSH KATARA
57	210101046	HARSHAL JOSHI
58	210101047	HARSHIT SEKSARIA
59	210101048	HARSHIT SINGH PAKHARIYA

60	210101049	HEMANT YADAV
61	210101050	HIMANGSHU DEKA
62	210101051	HIMANSHI GAUTAM
63	210101052	JANAPATI SAI AJAY
64	210101053	JETHWANI SIDDHANT PRATAP
65	210101054	KANNAN RUSTAGI
66	210101055	KELLA USHA SREE
67	210101056	KODIMGARI DILEEP KUMAR
68	210101057	KOLETI LAVANYA
69	210101058	KOTA SATYA KIRAN
70	210101059	KSHITIJ MAURYA
71	210101060	KUNDAN MEENA
72	210101061	LAKSHEET MEENA
73	210101062	LAKSHYA ONKARA
74	210101063	MADALA SAI DEEKSHITHA
75	210101064	MAJJI ADITYA
76	210101065	MAYANK CHOUDHARY
77	210101066	MEGHNA BATTU
78	210101067	MITHILESH GUPTA
79	210101068	MOHIT KUMAR
80	210101069	MUKKA KOUSHIK
81	210101070	MUNAGALA DEVI NAGA SAI SRINIVAS
82	210101071	NAGAPURI VANITHA
83	210101072	NALADALA NAVADEEP
84	210101073	NITYA PARIKH
85	210101074	PARTH KASTURE
86	210101075	PATEL DHRUV
87	210101076	PIYUSH TAYAL
88	210101077	POSA MOKSHITH
89	210101078	PRANAV JAIN
90	210101079	PRATHAM
91	210101080	PRATHAM GOYAL
92	210101081	PRINCE KUMAR
93	210101082	PRIYANSHU MAHAWAR
94	210101083	PRIYANSHU RAJ
95	210101085	RASHAAD ALI GAZANFAR ALI BAIG
96	210101086	RAVI LAHARE
97	210101087	RAVI RANJAN KUMAR
98	210101088	RIDHIMAN KAUR DHINDSA
99	210101089	RIYA MITTAL
100	210101090	SACHIN KUMAR GAUTAM
101	210101091	SAHIL JAISWAL

102	210101092	SAHIL MEHUL DANAYAK
103	210101093	SANJANA SIRI KOLISETTY
104	210101094	SANNIDHI HEMANTH
105	210101095	SATYARTH GUPTA
106	210101096	SHALLY KANDOI
107	210101097	SHASHANK KUMAR
108	210101098	SHIVAM GARG
109	210101099	SHREYA SARAF
110	210101100	SPARSH MITTAL
111	210101101	SREEHARI C
112	210101102	SWAGAT BHUPENDRA SATHWARA
113	210101103	TANISHA SALVI
114	210101104	TARUN KUMAR
115	210101105	THOTA HARSHA VARDHANI
116	210101107	VANGA NIKHITHA
117	210101108	VANKAR DIVYESH KUMAR
118	210101109	VARSHA
119	210101110	VATSAL JAIN
120	210101111	VUTUKURU HEMA LAKSHMI SANDHYA
121	210101112	YADAV HARSH PRADEEP
122	210101113	YASH RAJ SINGH
123	210101114	SHIVAM GUPTA
124	210101115	TANISH
125	210101116	PRATYUSH R
126	210101117	DHANESH V
127	210101118	KETAN SINGH
128	210101119	SHIVAM AGRAWAL
129	210101120	MIHIT SREEJITH
130	210101121	BADEKAI VIJESH RAMACHANDRA BHAT
131	210101122	ADITYA MANDAL
132	210101123	SOUMYADEEP PAUL
133	210101124	AKSHIT SHARMA
134	210101125	NITISH KUMAR PINNETI
135	210101126	TAMMIREDDY SRI VALLABH

List of students who have fulfilled the requirements for award of B.Tech degree in Electronics and Communication Engineering

S.No.	Roll No	NAME
1	200102003	ABDULLA SHAREEF
2	200102013	ARKA DATTA
3	200102039	JATOTHU VAMSHI
4	200102040	JAYESH JOSHI
5	200102065	PESARU SRINIVAS
6	200102066	PODUGU DEEPIKA
7	200102094	SYED MAQBOOL HASAN
8	210102001	AASTHA SINGH RAI
9	210102002	ABHAY VERMA
10	210102003	ABHISHEK REDDY THORRA
11	210102004	ADITYA BHUSHAN
12	210102005	ADITYA GARG
13	210102007	ADITYA KARANTH
14	210102008	ADITYA KUMAR
15	210102010	AILINENI PUNEETH
16	210102011	AKSHAT
17	210102013	AMAN RAJ
18	210102015	AMIT KUSHWAHA
19	210102016	AMOGH TIWARI
20	210102017	AMRISHA VARDIYA
21	210102018	ANCHAL
22	210102019	ANIRUDDHA MOON
23	210102020	ANSHU APOORVA
24	210102021	ARHITA KUNDU
25	210102022	BANDARU SHASHANK
26	210102024	BHARTI
27	210102025	CHINTALAPUDI YADEEDYA RAO
28	210102026	DEEPAK SINGH
29	210102028	DHARMANA PURVI
30	210102029	DIYA ARUN
31	210102030	DOMALA YAMINI
32	210102031	EPPALAPALLI ABHIPRANAV
33	210102032	G V KRISHNA KIREETI
34	210102033	GEETANJAY MANIK
35	210102034	GEMBALI MADHAN MOHAN
36	210102035	GUGULOTH SHIVA SANDEEP
37	210102036	HARDIK ROONGTA
38	210102037	HITESH KUMAR
39	210102038	HRISHIKESH
40	210102039	IPSITA JAIN

41	210102040	JAKKULA SPANDHAN SRIRAG
42	210102041	JUPAKA GAYATHRI
43	210102042	KARAN MARKANDEY
44	210102044	KAUSTUBH KUMAR
45	210102046	KHUSHI BOTHRA
46	210102047	KISHAN KUMAR
47	210102048	KODURU GAYATRI
48	210102049	KORADA UDAY KIRAN
49	210102050	KOTHAKAPU SAI CHARAN REDDY
50	210102051	KOUSTUB GURURAJA RAO
51	210102052	KUSUMA SAI GANESH
52	210102054	MANOJ KUMAR AHIRWAR
53	210102055	MD SAMEER
54	210102057	NISHANT BHAGAT
55	210102060	PARAMVEER PRAKASH
56	210102061	PARIDHI BARUAH
57	210102062	PRABHANJAN BALKRISHNA JADHAV
58	210102063	PRACHI SINHA
59	210102065	PRIYANSHU KUMAR RAJ
60	210102067	RAJAT SINGH
61	210102069	RAVI KUMAR SAINI
62	210102070	RITESH RANJAN
63	210102071	ROHAN MITRA
64	210102072	SACHIN KUMAR
65	210102073	SAGAR KUMAR
66	210102074	SAIRAJ RAGHAVENDRA GHOSARWADKAR
67	210102075	SANJAY VARUN
68	210102076	SANKOORU MANIDEEP
69	210102077	SEELAM ALEXANDER
70	210102078	SEELAM HARSHITHA
71	210102080	SHIVAM VISHWAKARMA
72	210102081	SHIVAM AGARWAL
73	210102084	SHIVAM NAYAK
74	210102085	SHRUTI RAJ
75	210102086	SINGAMANENI SAHITHI
76	210102087	SOUMYA GUPTA
77	210102088	SRIRAM SAI KRISHNA
78	210102089	SUDHANSHU CHAURASIA
79	210102090	SUSANNA JOSEPH
80	210102092	TAMADANA PAVAN KALYAN
81	210102093	UJJWAL JAGGARWAL
82	210102094	VAGISHA RAJ
83	210102095	VEDANT RAVINDRA KHARCHE

84	210102096	VEDIKA GARG
85	210102097	VIBHOR SHARMA
86	210102099	VITTA NEERAJ KUMAR
87	210102100	YASH KATARIA
88	210102101	YEDDULA BASIREDDYGARI GANGA MOHITH REDDY
89	210102102	YUVRAJ JAISWAL
90	210102103	SOURAJA KUNDU
91	210102104	TEJAS KADRE
92	210102105	PRATYUSH
93	210102106	SUNKARA VENKATA SAI MANOHAR
94	210102107	SHRIVATHSA P S
95	210102108	VEDANT P RAJPUROHIT
96	210102109	AKASH CHOWDHURY
97	210102110	G ADARSH MANI
98	210102111	AVINASH SHARMA
99	210102112	AUM PATEL
100	210102113	RISHIT GUPTA
101	210102114	KAMANI MADHAV
102	210102115	MAYANK RANJAN BHAKAT
103	210102116	UJJWAL NILESH RAVANI
104	210102117	DAKAPPAGARI SATHVIK
105	210102118	PRIYANSH SANJEEV SHRIVASTAV
106	210102119	SUGATA CHAKRABORTY
107	210102120	KASIREDDY MANOHAR REDDY
108	210102121	YASH MISHRA
109	210102122	AMBESH DIXIT
110	210102123	LAKSHIT SETHIA
111	210102124	ABHIJIT SHARMA
112	210102125	KRUTHIKESH M KOPPARAM
113	210102126	RAGHAV DODA
114	210102127	SHIVANSH
115	210102128	SHASHWAT MISHRA
116	210102129	ASSMIT SHUKLA
117	210102130	SWAPN AGARWAL

List of students who have fulfilled the requirements for award of B.Tech degree in Mechanical Engineering

S.No.	Roll No	NAME
1	180103072	SHIVASHIS PODDAR
2	190103021	ATUL SHARMA
3	200103027	AVICHAL RAJ
4	200103043	DIVYANSHU PRAKASH
5	200103119	SAMYAK JAIN
6	210103002	ABHAY KUMAR SINGH
7	210103003	ABHAY PANDEY
8	210103004	ABHIGYAN TRIPATHI
9	210103006	ABHISHEK GAUTAM
10	210103008	ABHISHEK KUMAR
11	210103009	AGNIVA GHOSH
12	210103011	AKASH KUMAR
13	210103012	AKSHATH KRISHNA R
14	210103013	AKSHITA SWARNKAR
15	210103015	ANIL KUMAR
16	210103016	ANKIT GURWAN
17	210103017	ANKIT KUMAR MAHATHA
18	210103018	ANSH BISARYA
19	210103019	ANTARA PARUI
20	210103020	ANURAG JAYANT PATIL
21	210103021	ANURAJ BHASKAR
22	210103022	ARATRICK MONDAL
23	210103023	ARUSHI MADHESIYA
24	210103024	ASHISH BHARAT MOTWANI
25	210103026	ATHARV JAROLA
26	210103027	AYUSH KOTARYA
27	210103028	AYUSH RANJAN
28	210103030	BANDARI PRANEETH
29	210103031	BANOTH SHASHIKUMAR
30	210103032	BASANTI BARO
31	210103033	BHUKYA PRAMOD MAHAJAN
32	210103034	BONDELI DIVYA TEJ SINGH
33	210103035	CHAHAK SAKLECHA
34	210103036	CHITTUDI ANIL
35	210103038	DEEKSHA THOLIYA
36	210103039	DEEPAN BANERJEE
37	210103040	DHUSHYANTHAN K
38	210103041	DIDDI GOWRI PRIYANKA
39	210103043	DIVYANSH DADHEECH
40	210103045	DRISHTI BANSAL

41	210103046	ERAGANABOINA HARSHAVARDHAN
42	210103048	GAURAV KUMAR
43	210103049	GORAVA LIKHITHA
44	210103050	GUGLAVATH THARUN
45	210103051	GURREDDY PAVANI
46	210103052	HARDIK PAHWA
47	210103053	HARSH KUMAR
48	210103055	HARSHVARDHAN PARMAR
49	210103056	HARSHVARDHAN SANJAY RUIKHEDKAR
50	210103057	HIMAANSHI SINGH
51	210103058	JADAV SUNIL
52	210103059	JATIN BANSAL
53	210103060	JOEL JOSEPH A
54	210103062	KALAVAKURI VAMSI
55	210103063	KANUMUKKALA HITHESH REDDY
56	210103065	KEERTHANA S
57	210103066	KHURAKTE SAHIL GAJANAN
58	210103067	KUMAR SHIVANG
59	210103068	LOLUGU NITYASRI
60	210103070	MOHIT MEENA
61	210103071	MOOTI MEGHANA
62	210103072	MUTTHOJU KEERTHI RAJU
63	210103075	NETRA PUJAR
64	210103076	NIKHIL KUMAR
65	210103077	NIKHIL VERMA
66	210103079	NITIN KUMAR
67	210103080	PAARTH KUMAR
68	210103081	PARUL BHAGAT
69	210103082	PIYUSH VAISH
70	210103083	POORVA UPMAN
71	210103085	PRATIMA TOMAR
72	210103086	RAGHAV SHARMA
73	210103087	RAJEEV
74	210103088	RAJEEV SUTRAKAR
75	210103089	RAKSHIT DAHIYA
76	210103090	RAMAN PAL
77	210103091	RAMAVATH ASHISH RATHOD
78	210103092	RIMJHIM DEWAN
79	210103093	RISHABH MAHAJAN
80	210103094	RISHAV RAJ
81	210103095	RONGALA LIKHITA SAI PRIYA
82	210103096	SAKSHI MAHESH SAKHARE

83	210103097	SANU SOURAV
84	210103098	SARTHAK GAUR
85	210103099	SAURABH KUMAR
86	210103100	SAYAN SOMYA
87	210103102	SHIVAM RAGHUWANSHI
88	210103104	SOHIL MONPARA
89	210103107	SREYAS M S
90	210103108	TANMAY TOTLA
91	210103109	TANUSHREE DEOGADE
92	210103110	TAWARE ATHARV BHAUSAHEB
93	210103111	TENDULKAR BHADRA DATTATRAYA
94	210103113	UTKARSH SINGH
95	210103114	VIBHA SHEKHAWAT
96	210103115	VIKAS RANJAN CHAUDHARI
97	210103116	VIKRANT PRATAP YADAV
98	210103117	VISHAL GARG
99	210103118	VISHAL SINGH
100	210103119	YASHARTH SINGH
101	210103120	HRISHI INANI
102	210103121	ABHIJIT PANDEY
103	210103122	AVNISH KARDEKAR
104	210103123	ANIBA AGRAWAL
105	210103125	SAMPREETI MAZUMDAR
106	210103126	AMAN RAGHUWANSHI
107	210103127	NIDHI SINGH
108	210103129	ARYAN RAY
109	210103130	GUNDETI SRIVARDHAN
110	210103132	FAYYAD HASEEB
111	210103133	PRANAV IGNATIOUS
112	210103134	KAMATHAM KRISHNA PRIYA

List of students who have fulfilled the requirements for award of B.Tech degree in Civil Engineering

S.No.	Roll No	NAME
1	170104048	MOHIT SIYAG
2	170104062	ROHIT KUMAR ATAL
3	200104014	ANKIT KUMAR
4	200104016	ANURAG DEEP
5	200104025	BHAVESH SHARMA
6	200104065	NAMEET
7	200104074	PIYUSH KUMAR
8	200104091	RISHI HARIT
9	200104096	SAKSHAM GARG
10	200104098	SAKSHI
11	210104001	ABHIJEET ANNASAHEB DUSANE
12	210104002	ABHISHEK PAL
13	210104003	ABHISHEK SINGH
14	210104004	ABHISHEK YADAV
15	210104005	ABHISHIRSH SACHAN
16	210104006	ADARSH KUMAR
17	210104007	ADITYA MATHUR
18	210104008	ADITYA SUNIT PAUL
19	210104009	ADITYA TIWARY
20	210104010	ADYA JASSAL
21	210104011	AKHILESH GUPTA
22	210104012	AKSHAT AREN
23	210104015	AKSHIT SHISHODIA
24	210104016	AMAN RAJ
25	210104017	AMIT KUMAR
26	210104018	ANKIT BENIWAL
27	210104019	ANKUR KUMAR
28	210104020	ANURAG
29	210104021	ARNAV RAJ
30	210104022	ARYAN SOLANKI
31	210104023	ASHU KUMAR
32	210104024	ASHUTOSH MISHRA
33	210104025	ASTHA GUPTA
34	210104026	AVISHKAR
35	210104027	AYUSH ANAND
36	210104028	AYUSH DINESH PATIL
37	210104029	BAISHALI BORAH
38	210104030	BHASKAR DEV
39	210104031	BOROLE PRASAD BALAJI
40	210104032	CHHAVI

41	210104033	DAMLALSIEM
42	210104034	DEEKSHA SANORIYA
43	210104035	DEVARAKONDA SRAVYA VARDHANI
44	210104036	DIPANSHU MEENA
45	210104037	DOMALA SHINJINI
46	210104038	EADA LIKHITHA
47	210104039	FARIS MOHAMED K
48	210104040	GADDAM MEGHANA
49	210104043	HARSH SAW
50	210104044	HARSH VARDHAN
51	210104045	HARSHIT GARG
52	210104047	IMNASEN AIER
53	210104048	ISHA KHARKIA
54	210104049	KANIKA TYAGI
55	210104050	KARAN VEER HANSA
56	210104052	KUMAR KISLAY
57	210104053	KUSHAL AGARWAL
58	210104054	MAMIDI SANDEEP
59	210104055	MANASWEE SHARMA
60	210104056	MANMOHAN
61	210104057	MEDAM DASARADHA RAMI REDDY
62	210104059	MOIRANGTHEM HOLLYWOOD SINGH
63	210104060	MOUSAM KUMARI
64	210104061	MRIDUL SINGH YADAV
65	210104062	MUDIT SINGH RAJPUT
66	210104063	NAMAN SRIVASTAVA
67	210104064	NEERAJ A R
68	210104065	PADI DANYI
69	210104067	PARMESHWAR MALI
70	210104068	PERURI BHAVANA
71	210104070	PRANAY KUMAR PARATE
72	210104071	PRANSHU KUMAR
73	210104072	PRASHANT SAURABH
74	210104075	PRERNA KUMARI
75	210104077	PRIYANSHU
76	210104078	PUNDARIKAKSHA MOHANTY
77	210104080	RAJ KUMAR
78	210104081	RAMAVARAM ROHITH REDDY
79	210104082	RAVI RAJ
80	210104083	RAVICHANDRA
81	210104084	RICHA RANI

82	210104085	RISHI JAIN
83	210104087	RITIKPAL SINGH
84	210104088	ROHAK JAIN
85	210104089	ROHAN KUMAR ISHWAR
86	210104090	ROHAN TITORIA
87	210104091	ROOPAM KAPOOR
88	210104092	RUDRA SHANKHA NANDY
89	210104093	SACHIN KUMAR
90	210104094	SANTOSH CHOUHAN
91	210104096	SATYAM JAISWAL
92	210104097	SHIKHA SINGH
93	210104098	SHIKHAR SHARMA
94	210104099	SHIVAM ANAND
95	210104101	SHRADDHA GUPTA
96	210104102	SHREYANSHI SHARMA
97	210104103	SHREYAS PIMPALKAR
98	210104104	SHUBHAM CHANDA
99	210104105	SHUBHANKIT ACHARYA
100	210104106	SIDHARTH YADAV
101	210104107	STELLA ANTONY
102	210104108	SUHANI KALRA
103	210104109	SURAJ MEENA
104	210104110	SWASTIK SWAROOP
105	210104112	TANUJ CHAUDHARY
106	210104113	UTKARSH UTPAL
107	210104114	VAISHNAVI VERMA
108	210104115	VANDAN SHARMA
109	210104116	VIOLINA KASHYAP
110	210104117	VIVEK
111	210104118	YUVRAJ SINGH RAWAL

List of students who have fulfilled the requirements for award of B.Tech degree in Biosciences and Bioengineering

S.No.	Roll No	NAME
1	200106010	ARYAN SINGH
2	200106026	DEEPANSHU
3	200106039	KARN PRATAP SINGH
4	210106001	AARIJ MODHUBHAI HUSSAIN
5	210106002	ABHINAV PRATAP SINGH
6	210106003	ABHISHEK DWIVEDI
7	210106004	ADITYA JINDAL
8	210106005	AFSHAN PERWEEN
9	210106006	ALINA RIZVI
10	210106007	AMAN KUMAR
11	210106009	AMGOTH NARESH
12	210106010	AMGOTH SHASHI KUMAR
13	210106012	ANIL SIYAG
14	210106014	BARUPATI SAIVARUN
15	210106017	DEBOLEENA SAHA
16	210106018	DESHMUKH SAURABH GANESHRAO
17	210106020	GAUTAM R N JETLEY
18	210106021	HARSH GUPTA
19	210106022	HIMANSHU AGARWAL
20	210106023	ISHAN AGASHE
21	210106024	ISHANT ROHILLA
22	210106025	JANHAVEE SHIRISH PANSE
23	210106026	JASKIRAT SINGH
24	210106027	JAYESH MURLIDHAR SONAWANE
25	210106028	KESHAV GOYAL
26	210106029	KHUSHI BHATT
27	210106030	KOMAL NIRANIA
28	210106031	KULKARNI ATHARVA NILESH
29	210106032	MANGROLIYA DHRUV GHANSHYAMBHAI
30	210106033	MANISH KUMAR
31	210106034	MOHIT RAJ
32	210106035	MUDAVATH NARESH NAYAK
33	210106037	NAVIN PATWARI
34	210106040	NIKHIL ASHOK PANSARE
35	210106041	OM KUMAR SAINI
36	210106042	P AASHRITH RAM
37	210106043	PAPPU URF MOHIT YADAV
38	210106044	PARAMJEET SINGH
39	210106045	PATEL KRISH RAKESHBHAI

40	210106048	PRIYANSHU PRASAD
41	210106049	PUNAKSHIT SINGH
42	210106050	PUSHKAR AMBASTHA
43	210106051	RAHUL KUMAR
44	210106052	RAHUL SINGH YADAV
45	210106053	RITESH SHIRKE
46	210106054	RITIK PATEL
47	210106055	ROHIT RAJ KOHLI
48	210106056	RONIT KUMAR KAUSHIK
49	210106057	SAMARTH JHUNJHUNWALA
50	210106059	SAMYAK SHARMA
51	210106060	SANYA
52	210106062	SHALEEN KAKKAD
53	210106063	SHASHANK SHARMA
54	210106065	SHIKHAR RAJ
55	210106066	SHUBHAM JAISWAL
56	210106067	SHUBHANSHU SAHU
57	210106068	SIDDHARTH
58	210106069	SIDDHI PANKAJ SUTRAVE
59	210106070	SNEHA SINGH
60	210106071	SRUTI BAIBHAB MISHRA
61	210106072	SUHANI JAIN
62	210106073	SUJAY DAGANI
63	210106075	SUMEET DEEPAK AHIRE
64	210106076	SUMIT KUMAR
65	210106077	SUMIT NAYAN
66	210106078	TOSHAR BANIK
67	210106079	UMANG UDBHAV
68	210106081	VAIRAGKAR SOURABH HARISH
69	210106082	VANSH
70	210106083	VIVIAN FRANCIS JOSEPH

List of students who have fulfilled the requirements for award of B.Tech degree in Chemical Engineering

S.No.	Roll No	Name
1	180107015	CH J S NIKHIL
2	200107041	KINSHUK GOYAL
3	200107046	LAKSHYA ANIL ROHERA
4	200107063	RAHUL SHARMA
5	200107090	TANAY DINESH GADA
6	210107001	ABHIJEET SINHA
7	210107003	ABHINAV KUMAR
8	210107004	ABHISHEK RATHI
9	210107005	ADITYA KUMAR
10	210107006	ADITYA PRASAD MOHANTY
11	210107007	ADITYA RAJ BAGRI
12	210107008	AKHILA REDDY A
13	210107009	ANAND MANGAL
14	210107010	ANANYA SIVAKUMAR
15	210107011	ANKIT KUMAR
16	210107012	ANSHUL PATEL
17	210107013	ARUSHI GUPTA
18	210107016	AYUSH MISHRA
19	210107017	AYUSH TIWARI
20	210107018	BABITA
21	210107019	BHOLE DNYANESH NILESH
22	210107020	BROTISH PAL
23	210107021	CHINMOYEE SONOWAL
24	210107023	DEV JYOTI
25	210107024	DHRUV AGARWAL
26	210107025	DIGVIJAY SINGH
27	210107026	DISHA AGARWAL
28	210107028	GAURAV MEGHWAL
29	210107029	GOURAB MONDAL
30	210107030	GOUTAM KUMAR HEMBRAM
31	210107031	GOVIND MADHAV VYAS
32	210107033	HARSHIT KATARIYA
33	210107034	JAGDISH PANDA
34	210107035	JANHVI ANURAG
35	210107036	JAWAJI SRIKANTH
36	210107037	JUJU SAIKIA
37	210107039	KANV CHAUDHARY
38	210107040	KARAN RABIDAS
39	210107041	KAUSTUBH DHOTE
40	210107042	KESH PRATAP SINGH

41	210107043	KESHAV KULHARI
42	210107044	KHUSHI AGRAWAL
43	210107045	KISLAY
44	210107047	KUNAL PAL
45	210107048	MAYANK ANAND
46	210107049	MD ADIL AKHTAR
47	210107050	MESHRAM ANSHIKA AJAY
48	210107051	MIHIR ANAND
49	210107053	MOKSHIKA KURETI
50	210107054	MRITYUNJAY SHARMA
51	210107055	NANDINI PRIYA
52	210107056	NARESH NAMDEO THAKARE
53	210107057	NIKITA BORAH
54	210107058	NITIN
55	210107059	NITYAJIT BASUMATARY
56	210107060	ONKAR DUBEY
57	210107061	PARAMESH A CHIRANG
58	210107063	PRANAY DEVENDRA BAMBOLE
59	210107064	PRANSHU
60	210107065	PRATIKSHA
61	210107066	PRIYANSHU KUMAR
62	210107067	RADHIKA DARGAR
63	210107068	RAJENDRA PRASAD SARSWAT
64	210107069	RASHMI BAJAJ
65	210107070	RAVI BHUSHAN PRATAP
66	210107071	RISHABH RAJ
67	210107072	RISHIBALAJI SRINIVASAN
68	210107073	ROHIT SATISH CHALAK
69	210107074	RONIT MALVI
70	210107075	SABIR SINGH
71	210107076	SARTHAK TAYAL
72	210107077	SHASHANK KUMAR GUPTA
73	210107078	SHIVAM ADBHUTE
74	210107079	SHIVAM KALAMBE
75	210107080	SHIVARAJ R KOLLI
76	210107081	SIDDHANT SRIVASTAVA
77	210107082	SNEHA BALAJI
78	210107083	SONALI TUDU
79	210107084	SUGAM BARMAN
80	210107086	SURAJ KUMAR YADAV
81	210107087	SWAPNIL BAJETHA
82	210107088	TARUN
83	210107089	THAMKE SHREYASI DAYAL

84	210107090	UDDIPTTA DEKA
85	210107091	UTKARSH RAJA
86	210107092	VAIBHAV JAIN
87	210107093	VARUN SAXENA
88	210107094	VIDHISHA AGARWAL
89	210107095	VIJENDRA SINGH BHATI
90	210107096	VINEET R JAGGA
91	210107097	YESHUDAN BORA
92	210107098	ZAKIA FARHAT
93	210107099	RAUNAK AGARWAL
94	210107100	RAJAT SINGHAL
95	210107101	NANDINI KATHYAYAN
96	210107102	DIVYESH AGARWAL
97	210107103	PRAKASH KUMAR
98	210107104	ARIJIT MOHANTA

List of students who have fulfilled the requirements for award of B.Tech degree in Electronics and Electrical Engineering

S.No.	Roll No	Name
1	180108035	PYDI AKASH
2	200108007	AMOGH SINGH
3	200108013	BANOTHU NAVEEN KUMAR
4	200108028	LOKESH MEENA
5	210108001	ABHAY DINESH NAIDU
6	210108002	ABHISHEK KUMAR
7	210108004	ANINDYA BISWAS
8	210108005	ANIRUDH GUPTA
9	210108006	ANYA KSHIRSAGAR
10	210108007	ARUN RAJ
11	210108008	ASHISH KUMAR
12	210108009	ASHUTOSH KUMAR
13	210108011	BODDEPALLI SAKETH
14	210108013	CHINTHA YETHI RAJ
15	210108014	DEVANSH SINGH
16	210108015	HARSH DIWAKER
17	210108016	HIMANSHU AGRAWAL
18	210108018	HIMANSHU PRAMOD TEMBHE
19	210108019	KALYANKASTURE BHAKTI LAXMAN
20	210108020	KANDURI ROHAN
21	210108025	LAKSHYA PATEL
22	210108026	MAHARSH BINDESHKUMAR RAVAL
23	210108028	MANISH KUMAR
24	210108030	NAGASARAPU VENKATA KOUSHIK
25	210108031	NAMAN KUMAR JANGID
26	210108032	NEELIMA PULIPATI
27	210108033	OM CHOUDHARY
28	210108034	PRAJKT ANANDRAO SONKUSARE
29	210108035	PRIYANSHU
30	210108036	RAHUL VIVEK
31	210108037	RAJNANDNI PARMAR
32	210108039	RAVEENA KUMARI
33	210108040	RINSHI KUMARI
34	210108041	RONAK SHARMA
35	210108042	SANSKRITI
36	210108043	SHAUN JOB
37	210108045	SHLOK AGRAWAL
38	210108046	SIDDHANT SHRIVASTAVA
39	210108047	SOUDHARM JHANJHREE

40	210108048	SOUMYADIP MONDAL
41	210108049	SRISHTI MURARKA
42	210108050	STUTI MATHUR
43	210108051	SUNIL MEENA
44	210108052	SURAJ KUMAR SHIT
45	210108054	TANUJA PAINKRA
46	210108056	TUSHAR YADAV
47	210108057	UDAY PRATAP SINGH CHAUHAN
48	210108058	USILLA HASINI RAGA
49	210108059	VASU SAIN
50	210108060	VELAGAPALLI SAMUEL CRIPPS
51	210108061	YASH JAIN
52	210108062	ZAINAB ALI
53	210108063	SAYAK BHATTACHARYA
54	210108064	MOHIT KUMAR SHARMA
55	210108065	ABHISHEK GUPTA
56	210108066	DRISHTI AGARWAL
57	210108067	KATLA ROHITH KUMAR REDDY
58	210108068	HARDIK KUMAR SINGH
59	210108069	MOHIT SHARMA
60	210108070	T.SRIYA REDDY
61	210108071	AKSHAY KUMAR JHA
62	210108072	JASH MUNI
63	210108073	AYUSH JAIN
64	210108074	NEERAJ PANDEY
65	210108075	PRAKHAR GUPTA
66	210108076	UJJAWAL CHHAJER

List of students who have fulfilled the requirements for award of B.Tech degree in Engineering Physics

S.No.	Roll No	Name
1	170121007	ATHARVA RAJENDRA MADKAR
2	190121019	KHADSE VEDANT PRAMOD
3	200121019	GORITYALA DEEPTHI
4	200121024	KUMAR ABHIJEET
5	200121065	YASH SHARMA
6	210121001	ABHISHEK GAUTAM
7	210121002	ABHISHEK KUMAR MONTY
8	210121003	ADARSH SHARMA
9	210121004	ADITYA DHANANJAY BAHIRAT
10	210121005	AISHWARYA THAKARE
11	210121007	AKSHAT KUMAR
12	210121009	AMLAN BISWAL
13	210121011	ANJUM ULAZIM
14	210121012	ANUBRATA SAHA
15	210121013	ANUJ ANIL LOKHANDE
16	210121014	ANURAG KUSHWAH
17	210121015	ARNAV PANDITA
18	210121016	ARYAMAN BANSAL
19	210121017	ASHWIN RAJ SARMAH
20	210121019	AYUSH MOTHIYA
21	210121020	CHHANDAM PAL
22	210121021	DOLINA MUSHAHARY
23	210121022	FELIX XAVIER MECHERIL
24	210121023	GANDI DHEERAJ SIMHACHALAM NAIDU
25	210121024	GAURANG PARAG PATANKAR
26	210121025	HARIBHAJAN KUSHWAHA
27	210121026	HARSHITA TRIPATHI
28	210121027	ISHITA SARASWAT
29	210121029	JASMINE
30	210121031	KARAN RAGHUWANSHI
31	210121032	KARTHIK ANAND S M
32	210121033	KETHAVATH NITHIN NAIK
33	210121034	MANKAR SHRUTI SADANAND
34	210121035	MANOJ BAMNIYA
35	210121036	MUDIT GAUR
36	210121037	NAIK DHRUVA RAVINDRA
37	210121038	NAMAN JAIN
38	210121039	P. JOEL
39	210121040	PALLAVI R GOWDA

40	210121041	PRAKHAR BHATTACHARYA
41	210121042	PRIYANSHU SINHA
42	210121043	RAJARSHI MANDAL
43	210121044	RAJEEV YADAV
44	210121045	RAUNIT SINGH
45	210121046	RAVI RAJAK
46	210121047	S NAMAN SETHIYA
47	210121048	SAISUCHITH P
48	210121049	SHAFAAT HUSSAIN KHAN
49	210121051	SHUBHECHHA MONDAL
50	210121052	SUBHAM KUMAR
51	210121053	SUDHANSHU KUMAR
52	210121054	SUNIDHI PRAKASH
53	210121056	TANISHA ACHYUT PRAKASH
54	210121057	TEJAS PANDURANG TENDULKAR
55	210121058	UJJVAL CHARPOTA
56	210121060	VANTERU AISHWARYA
57	210121062	VEDHANT KRISHI S
58	210121063	VISHAL SINGH MAHAR
59	210121064	VISHVJEET KUMAWAT
60	210121065	VIVEK KUMAR
61	210121066	VIVEK S DOND
62	210121067	YADAMREDDY MANASWI
63	210121068	YASH
64	210121069	ANKIT VARSHNEY
65	210121070	SHASHWAT PANDEY

List of students who have fulfilled the requirements for award of B.Tech degree in Chemical Science and Technology

S.No.	Roll No	Name
1	210122002	AMBIKA SINGH
2	210122003	ANCHIT RAJIV PRASAD
3	210122004	ANJALI PRIYA
4	210122005	ANKIT DAS
5	210122006	ANKIT KUMAR
6	210122008	ANURAG PANDEY
7	210122009	ANURAG SINGH
8	210122010	ANUSHKA NEGI
9	210122012	AYUSH SINGH
10	210122013	BANOTHU KARTHIK
11	210122014	BHARGAV SONOWAL
12	210122016	DEEPENDRA KUMAR SINGH
13	210122017	DEEPESH KAUSHIK
14	210122018	DEVESH ANJANE
15	210122020	HARSHITA AGRAWAL
16	210122021	KANIKE UDAY
17	210122023	KOMAN MORUNGMAN MARING
18	210122024	KRISHNA KUMAR
19	210122025	KULDEEP RANJAN
20	210122026	KUMAWAT RAGHUVIR MOHANLAL
21	210122027	KUNAL SINGH
22	210122028	MANJU
23	210122029	MOHIT ADESH PATIL
24	210122030	MOHIT ANAND
25	210122031	MONUJ GOGOI
26	210122032	PAWAR CHANDANA
27	210122034	PRANATHI NIDADAVOLU
28	210122035	PRANJAL SAXENA
29	210122036	PRATHAM GARG
30	210122037	PUNNYA PRASANNAN
31	210122038	RACHIT AWASTHI
32	210122039	RAGHAV ARORA
33	210122040	RAHUL KUMAR
34	210122041	RAJ KASHYAP
35	210122042	RAJAT PATODI
36	210122044	RAJEEV VERMA
37	210122045	RAJESHWARI RAJIV JADHAV
38	210122046	RANJAN KUMAR
39	210122048	RIDDHIMAN GHATAK

40	210122049	RISHAV RAJ
41	210122050	RISHI PATEL
42	210122051	RITIKA REGE
43	210122052	SARTHAK KUMAR
44	210122053	SAYAN DEY SARKAR
45	210122054	SHIVAM
46	210122056	SHREYA ANAND
47	210122057	SHRUT DOBARIYA
48	210122058	SIDDHARTH KASHYAP
49	210122059	SUMIT KUMAR RAJAK
50	210122060	SWAPNIL GANGRADE
51	210122061	SWATI SINHA
52	210122063	TUSHAR KHOLWAL
53	210122064	VEDANT SUBHASH PHAD
54	210122065	YASH VARDHAN SRIVASTAVA

List of students who have fulfilled the requirements for award of B.Tech degree in Mathematics and Computing

S.No.	Roll No	Name
1	200123009	ANURAG AHIRWAR
2	200123011	ARTI SAHU
3	200123015	DHRITISHMAN LAHARY
4	200123024	HIMADRI BORO
5	200123028	KAMMARI PRAVITH CHARY
6	200123034	MONIDIPA DAS
7	200123039	PRADIPKUMAR ARJUN SINGH
8	200123051	SHREYANS KHABIA
9	200123057	SOUMYA
10	200123062	SUNNY NARZARY
11	200123073	YASHVI CHIRAG PANCHAL
12	200123078	ARCHIT CHOUHAN
13	200123082	GAURANG THAKUR
14	210123001	AADITYA GUPTA
15	210123002	AALOK BAGARIA
16	210123003	AASTHA KHANDELWAL
17	210123004	ABHINAV KUMAR
18	210123005	ADAPA JASHKAYTH
19	210123006	ANANT BANSAL
20	210123007	ANKESHWAR SUKETH
21	210123008	ARUSH GUPTA
22	210123009	ASTHA RANE
23	210123010	AYUSH KUMAR
24	210123011	AYUSH KUMAR JAISWAL
25	210123012	AYUSH VERMA
26	210123013	AYUSHMAN VERMA
27	210123014	CHANDRASHEKAR A GIRIDHARAN
28	210123015	DAKSH RAJ
29	210123016	DEVANSH VADNERE
30	210123017	DHRUVA SARAWGI
31	210123018	DIPIT PATOWARI
32	210123019	DIYA UMESH AGRAWAL
33	210123020	GADGE SARTHAK SIDDHESHWAR
34	210123021	GAMPA SATHVIK
35	210123022	GARGI GOYAL
36	210123023	GAURAV KATARIA
37	210123024	HARSH KUMAR
38	210123025	HARSH KUMAR SINGH
39	210123026	HIMANK GUPTA
40	210123027	INAGANTI CHAKRADHAR

41	210123028	JYOTISH
42	210123029	JYOTISH KUMAR
43	210123030	KAMINI MANGAL
44	210123031	KANCHARLA ABHIJITH GOUD
45	210123032	KHUSHI TONGIA
46	210123033	KODUDULA ASHISH REDDY
47	210123034	KOPPULA HRUSHIKESH
48	210123036	LALHRIEMSANG FAIHRIEM
49	210123037	LITESH KUMAR
50	210123038	MESHRAM PRASHIK MANGESH
51	210123040	MUDE SRIKANTH
52	210123041	NALLAM KALYAN SATHVIK
53	210123042	NAYAN JYOTI PRASAD
54	210123043	PAVAN KUMAR ABHIROOP A
55	210123044	PITCHIKA ASHA SHREE
56	210123045	PRANAVI SUDIREDDY
57	210123046	PRIYANSHU DUBEY
58	210123047	PUNIT KUMAR
59	210123048	RAHUL KUMAR
60	210123049	RAJ BOROGAON
61	210123050	RAYALA NAGA PRAGNA SRI
62	210123051	RISHIKA SARIA
63	210123052	SAJAL AGARWAL
64	210123053	SANKALP SETIA
65	210123055	SAVI ABHIDNYAN KAWLE
66	210123056	SAYALI MANISH RAJE
67	210123057	SHIFAT ALI
68	210123058	SHIVAM SINGH
69	210123059	SHUVRAJIT DEB ROY
70	210123060	SISTLA GAYATRI
71	210123062	SUMAN MEENA
72	210123065	TANMAY BHATNAGAR
73	210123066	TEJAS SUNIL BHALE
74	210123067	UPESH JEENGAR
75	210123068	UTHRISAR KHUNGUR BORO
76	210123069	VANKADAVATH ROHITH SAI
77	210123070	YATHARTH GUPTA
78	210123071	YATHARTH YASH
79	210123072	RASESH SRIVASTAVA
80	210123073	VIDYA SAGAR G
81	210123074	KISHLAY SONI
82	210123075	NAVEEN KUMAR A G
83	210123076	KARAN GARG

84	210123077	LAKSHYA KOHLI
85	210123078	ADVAITAA ARUN
86	210123079	KATTAMURI SRI CHAITANYA
87	210123080	ADITYA GUPTA
88	210123081	AARYESH BALERI
89	210123082	SONGIRE PARTH SUNILKUMAR
90	210123083	DIPANSHU GOYAL
91	210123084	NAVEEN KALWAN

List of students who have fulfilled the requirements for award of B.Tech degree in DSAI

S.No.	Roll No	Name
1	210150001	ABHIST YADAV
2	210150002	ADITYA GUPTA
3	210150004	ADITYA SURYAWANSHI
4	210150005	ANANT KACHOLIA
5	210150006	ANKITA ANAND
6	210150007	ARYAN LATH
7	210150008	ARYAN SINGH
8	210150009	BORRA LAKSHYA
9	210150010	DEVANSH BHARDWAJ
10	210150011	HARSH RAJ
11	210150012	KATTA SRIKAR REDDY
12	210150013	NISHCHAY NILABH
13	210150014	PALTHIYA LAANITH CHOUHAN
14	210150015	POKALA RITHURAJ
15	210150016	SHUBHI AGARWAL
16	210150017	SUBHASH PATEL
17	210150018	KAKI HEPHZI SUNANDA
18	210150019	THANISH BOLLA
19	210150020	VARUN NAGPAL
20	210150021	NITYAM PAREEK
21	210150022	SHIVAM KUMAR SINGH
22	210150023	CHAUDHARI SHANTANU UJWAL

List of students who have fulfilled the requirements for award of Bachelor of Design (BDes)

S.No.	Roll No	NAME
1	170205043	VIGNESH KUMAR S
2	170205045	VIVEK SHAJI KIZHAKKEKARA
3	180205039	SRIJAN KANISHKA
4	190205047	SHARVARI ANAND
5	200205035	PRABHAT SAINI
6	210205001	AADRA RAJESH
7	210205002	AARYA VINAYAK GHODKE
8	210205003	AASHI AGARWAL
9	210205004	AATHITHYA M
10	210205005	ABDUL BASITH K
11	210205006	ADHUAITU KRISHNA H K
12	210205007	ADITHYAN SUNIL KUMAR
13	210205008	ADITYA PARMAR
14	210205009	ADITYA PRATAP SINGH
15	210205010	ALAINA VINAYAK
16	210205011	AMEY MAKARAND KAREKAR
17	210205012	AMOGHA MARGASSERY
18	210205013	ANANDU KRISHNAN
19	210205015	ANSHUL SUTHAR
20	210205016	ANUBHAB SAHOO
21	210205017	APARNA CHINTU
22	210205018	ARYA K
23	210205019	ARYAN SHARMA
24	210205020	BEDANTA MANDAL
25	210205021	CHAITANYA KUNAL RAUT
26	210205022	CHOROVELU RINGA
27	210205023	DARSAN SUNOJ
28	210205024	DAWN LAWRENCE ROY
29	210205025	DHWANI MEHUL DOSHI
30	210205026	HARSH DEEP
31	210205027	JEEVAN JOLLY
32	210205028	KAVINAS SUNDARAMURTHY
33	210205029	KAYRA REYING PAO
34	210205030	KUMKUM YADAV
35	210205031	M THANUSH
36	210205032	MAHIMA PRASANNA
37	210205033	MANAJIT SAHA
38	210205034	MAYANK KUMAR SINGH
39	210205035	MOHIT SUMBRUI
40	210205036	MUKTA YUVRAJ SANGARE
41	210205037	NEHA PANDEY
42	210205038	NIRAN VISWAS K

43	210205039	NIRUPAMA S
44	210205040	PARTH SHARMA
45	210205041	PRAJWAL LAXMAN KUWAR
46	210205042	ROHIT SUHAS KONDAYE
47	210205043	SAANVI GIRISH BAPAT
48	210205044	SAJAL PRAMOD RISWADKAR
49	210205045	SAKSHI MALLAH
50	210205046	SAMHITA LOKESH
51	210205047	SANBARTO MONDAL
52	210205048	SHIVAM KUMAR ROY
53	210205049	SHREYA SARKAR
54	210205050	SUSHANT AMOL SAWANT
55	210205051	SWAPNIL BANERJEE
56	210205052	SWARA CHACHAD
57	210205053	URMI GOPALAKRISHNA
58	210205054	VAISHNAVI UPADHYAY
59	210205055	VIKNESH SURYA S S
60	210205056	VIRAT DUBEY
61	210205057	VISHNU CHANDAN KOLAPARTHI
62	210205058	YASH JITENDRA CHAUHAN
63	210205059	YASH KISHOR KAMBLE
64	210205060	YASH VERMA

List of students who have fulfilled the requirements for award of Master of Arts in Development Studies

S.No.	Rollno	Name
1	222241004	AKSHAY SHOME
2	232241001	ADITYA S
3	232241002	AKSHAY KRUSHNA GHARDE
4	232241003	AMARJEET KUMAR
5	232241005	ANGKUR DAS
6	232241007	ARPIT TIRKEY
7	232241008	ASWATHI RAJEEVU
8	232241009	BANDITA LALUNG
9	232241010	BARNALI MEDHI
10	232241011	CHELSY PAREEK
11	232241012	DEVANSHI YADAV
12	232241013	ELWEENA LAL
13	232241014	KESAR KANJHLIA
14	232241015	LEEYAN GOGOI
15	232241017	MISHTHI SHARMA
16	232241018	MOHD MAHBOOB
17	232241019	NARESH SOMAJI KHOBRAGADE
18	232241020	NAYANTARA B TERESE
19	232241022	NOBONEETA RABHA
20	232241023	OM SAMADHAN HANDE
21	232241024	ORUGANTI TEJASWI
22	232241026	PRAYAG RAJ BHUYAN
23	232241027	PRIYANKA MUNDHRA
24	232241028	RAJASHREE KALITA
25	232241029	ROHINI BHAVYA
26	232241030	RUSHIKESH HARISHCHANDRA TIDKE
27	232241031	SAMYAK TIRRI
28	232241032	SATYAM CHAUBEY
29	232241033	SAYANDEEP BHATTACHARJEE
30	232241034	SHAIK AYESHA
31	232241035	SIDDHANT KUMAR SINGH
32	232241036	SOUMYADEEP CHATTERJEE
33	232241037	SUBHAM KUMAR
34	232241038	SUDARSHAN EKNATH WANKHADE
35	232241039	THOMAS BASUMATARY
36	232241040	TWINKLE CHUTIA
37	232241042	BARUN MANDAL
38	232241043	SAMRIDDHI DESHMUKH
39	232241044	SANKET VISHNU UMAP

40	232241045	SHISHIR KUMAR MAHLI

List of students who have fulfilled the requirements for award of Master of Arts in Liberal Arts

S.No.	Rollno	Name
1	222242005	JITENDRA KUMAR YADAV
2	232242001	ANASWARA PC
3	232242002	DEEPSIKHA PANDEY
4	232242003	GAURAV BORA
5	232242004	KESILENUO PIENYU
6	232242005	MOUPARNA GUHA
7	232242006	RANJEET KUANR
8	232242007	RONIT DAS
9	232242008	RUPJYOTI BORO
10	232242010	UDANGSHRI BASUMATARY
11	232242011	UMESH RAJ

List of students who have fulfilled the requirements for award of Master of Science in Physics

S.No.	Rollno	Name
1	222121016	BRIJESH PANWAR
2	222121019	FRANKY BEY
3	222121035	PRADYUT MONDAL
4	222121040	RAVI GARLAY
5	222121047	SOURADEEP SIKDAR
6	232121002	ABHISHEK BURMAN
7	232121003	ABHISHEK RAVINDRANATH SINGH
8	232121004	ADRISH CHATTERJEE
9	232121005	AJAY KUMAR SAINI
10	232121006	AJEET PRAJAPATI
11	232121007	ALEN DOMINIC
12	232121008	ALOLIKA BANDYOPADHYAY
13	232121009	AMAN SINGH
14	232121010	AMARJIT DAS
15	232121011	ANAND KUMAR
16	232121012	ANIK GHOSH
17	232121014	APURBA MAJI
18	232121015	ARJUN
19	232121016	ASISH KUMAR SAIKIA
20	232121017	AYUB SEKH
21	232121018	BIKRAMJIT KOLEY
22	232121019	BODHISATTWA DALAI
23	232121020	CHANDRA PRAMENDU PRAKASH
24	232121021	CHANDRAMOULI SANTRA
25	232121022	CHIRAG BARARA
26	232121023	DAMIAN BASUMATARY
27	232121024	DEVENDRA CARPENTER
28	232121025	DHRUVA SARMA
29	232121026	GUNJAN JAIN
30	232121027	ISHITA MANOJ MAHESHAKA
31	232121028	JUGAL TAPANBHAI PANDYA
32	232121029	JUHI SWAMI
33	232121030	KANHU CHARAN NAYAK
34	232121031	KAUSTUBH MUKUND VISPUTE
35	232121033	LATU KALITA
36	232121034	LAXMI SINGH
37	232121036	NAMRATA SINGH
38	232121037	NEHA MEENA
39	232121038	NITISH KUMAR MEHER

40	232121039	NITYANAND CHAUHAN
41	232121040	PANTHOJYOTI BHATTACHARJEE
42	232121041	PAWAN JAKHAD
43	232121042	PHWILAW BASUMATARY
44	232121043	PRASANT KUMAR
45	232121046	RASHMIRANJAN PANDA
46	232121047	RISHABH GUPTA
47	232121048	RUPSA ROY CHOUDHURY
48	232121049	SAURABH SHARMA
49	232121050	SAYAN CHATTERJEE
50	232121051	SHIVANSHI PATEL
51	232121053	SOUMEN ADHIKARY
52	232121055	SUJNANA SAMPAD NAYAK
53	232121056	TANOY SARKAR
54	232121057	TANUJ CHAUHAN
55	232121059	VISHAL VISHWAKARMA
56	232121060	YUSUF ANSARI

List of students who have fulfilled the requirements for award of Master of Science in Chemistry

S.no.	Rollno	NAME
1	232122001	AASHNA PRIYADARSHINI
2	232122002	ADITI ANAND SINGH
3	232122003	AJAY KUMAR
4	232122004	AKSHAY
5	232122005	AMLAN JYOTI GOGOI
6	232122006	ANIRBAN BERA
7	232122007	ANKIT KUMAR SINGH
8	232122008	ANSHIKA CHAUDHARY
9	232122009	ANUSHKA AWASTHI
10	232122010	ANUSHKA PHOUZDER
11	232122011	ARIJIT DEY
12	232122012	ARUN KUMAR
13	232122013	ARUNABHA DUTTA
14	232122014	ARUNIMA ROY
15	232122015	BIJOY DATTA
16	232122016	BISWANATH PAL
17	232122017	DARJI PUNIT HARIPRAKASH
18	232122018	DHIRAJ RAJ
19	232122019	DWARIKA PRASAD VERMA
20	232122020	GAURAV
21	232122021	GOURANGA BASAK
22	232122022	KALYANI BAGDI
23	232122024	KULADEEP SEAL
24	232122025	KUNAL SAHAY
25	232122026	LALRINTLUANGA
26	232122027	VADHEL MALHAR BHARATBHAI
27	232122028	MANADIP SUTRADHAR
28	232122029	MANORANJAN MALIK
29	232122030	MD. SAMIM UDDIN
30	232122031	NAGENDRA KASANA
31	232122032	NIKHIL MALLICK
32	232122033	NISHITA BORAH
33	232122034	NUR AMIN
34	232122035	PARICHIT KAMBOJ
35	232122036	PARTHA SARATHI DASH
36	232122037	PAYODH DWIVEDI
37	232122038	POULOME MAJI
38	232122039	PRASHANT SHIVSHANKAR PATIL
39	232122040	PULOKESH GAYEN

	232122042	RAJESH
40	232122043	SAIKAT BERA
41	232122044	SAMAR SINGH YADAV
42	232122045	SANJAY BARMAN
43	232122046	SANJAY BISWAS
44	232122047	SAYONTI DUTTA
45	232122048	SHRIJIT BHAKTA
46	232122049	SNEHASIS DAS
47	232122051	SRIKRISHNA KHAMRAI
48	232122052	SUBHADEEP BASAK
49	232122053	SUBHADEEP PAUL
50	232122054	SUBHAJIT BASAK
51	232122056	SWAPNIL TIWARI
52	232122057	TUHIN DAS
53	232122058	UDAYAN PANJA
54	232122059	UJJWAL KUMAR TRIPATHI
55	232122060	VATSAL RAMESHBHAI GAMI

List of students who have fulfilled the requirements for award of Master of Science in Mathematics and Computing

S.No.	Rollno	NAME
1	182123012	CHIKU SAHU
2	222123007	AMIT KUMAR
3	222123014	ARUN SARDAR
4	222123034	NIGHTINGALE DAIMARI
5	222123043	RAMSINGH KULDEEP
6	222123049	SIDDARTH NAYAK
7	232123001	ABHISHEK KUMAR
8	232123002	AKASH KUMAR
9	232123003	ALANKAR MANI BHOA
10	232123004	ANKUR RAJ
11	232123005	ANURAG JUNEJA
12	232123006	ARCHIT DEB
13	232123007	CHANDRESH JOSHI
14	232123008	DIYA S
15	232123009	SOURISH MAITY
16	232123010	JAGDISH KUMAR
17	232123011	JAYVIR SINGH
18	232123012	KUNAL
19	232123013	LOVEPREET SINGH
20	232123014	MOHIT KHIRWAR
21	232123015	NAVJOT KAUR
22	232123016	NIDHEESH KUMAR RAO
23	232123018	PRAFULLA KUMAR SAHA
24	232123019	PRAJYOT BHIMASHANKAR PYATI
25	232123020	PRATHAM RAJESH DOIPHODE
26	232123021	RAJU SHARMA
27	232123023	RUDRA BANERJEE
28	232123024	SACHIN KUMAR
29	232123025	SAURABH
30	232123026	SHIVIKA RANI
31	232123027	SONU
32	232123028	SUVRAMOY PAL
33	232123029	TEESHA
34	232123030	UMANG TIWARI

List of students who have fulfilled the requirements for award of Master of Science in Mathematics

S.No.	Rollno	NAME
1	232123101	ANANYA BHANDARI
2	232123102	ANIKET CHAUDHARY
3	232123103	APURBA DEB NATH
4	232123104	BHARAT KUMAR
5	232123105	CHAYAN HALDER
6	232123106	DAVENDER
7	232123107	DEBABRATA SAMANTA
8	232123108	DISHA SHAW
9	232123109	DISHANT BHARDWAJ
10	232123110	IMRAN HOSSAIN
11	232123112	KHUSHI AGARWAL
12	232123113	LABANA VIKESH VISHAL
13	232123114	MAHESHWAR DASS
14	232123115	MUKESH KUMAR DANSENA
15	232123117	PRATHEMESH S PATIL
16	232123118	PRIYANSHU KUMAR
17	232123119	RASHMI GAHLOT
18	232123121	RITU
19	232123122	RUPALI DEVI
20	232123123	SACHIN DHIVAR
21	232123124	SAIKAT MALLA
22	232123125	SAYAN DAS
23	232123126	SAYED PARVEJ RAHAMAN
24	232123128	SHIVANI SHARMA
25	232123129	SHREYA KUMARI
26	232123130	SUBHRADEEP KARMAKAR

List of students who have fulfilled the requirements for award of Master of Technology in Computer Science and Engineering

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1	224101026	KAIMADAM ANTONY SHEJIN
2	234101001	ABHISHEK PANDEY
3	234101002	ABHISHEK VERMA
4	234101003	ABHRAJYOTI KUNDU
5	234101005	AJAY PAL SINGH
6	234101006	AKSHAY SITARAM BHOSALE
7	234101007	ALEXANDER JAMATIA
8	234101008	AMAN AGARWAL
9	234101009	AMAN AGRAWAL
10	234101010	AMIYA RANJAN PANDA
11	234101011	BRAJESH KAR
12	234101013	DHRUVKUMAR BABUBHAI KAKADIYA
13	234101014	GAUTAM MUKESH GANDHI
14	234101015	GORACHAND MONDAL
15	234101016	HARSHITA RAKESH MISHRA
16	234101019	JASH VIPUL RATANGHAYRA
17	234101020	JAY KHINCHI
18	234101021	JAYA KRISHNA REDDY KANCHAM
19	234101024	KISHAN HITENDRA THAKKAR
20	234101025	KUMAR SANU
21	234101027	MANISH JOSHI
22	234101028	MANISH KARMAKAR
23	234101029	MANPREET SINGH SALUJA
24	234101030	MUKESH BARPETE
25	234101031	NAVDEEP PATEL
26	234101032	NIHALBHAI UMARBHAI SHAIKH
27	234101033	NIRANJAN KESAVAN
28	234101034	NUPUR BRAHAMANYA
29	234101035	POONAM NAMDEO SHELKE
30	234101036	PRADOOM SANJAY VARMA
31	234101037	PRAHIL BHOWMIK
32	234101038	PRARBDH TIWARI
33	234101039	PRATIK MAHENDRA KAMBLE
34	234101041	RAHUL BHANUDAS AGARKAR
35	234101043	RITAM MOHANTY
36	234101044	RITIK KUMAR KOSHTA
37	234101045	RUMIT PINGLESHWAR GORE
38	234101046	RUPNARAYAN KUMAR
39	234101048	SAYAN PAL
40	234101049	SHARDUL NALODE

41	234101050	SUBHASHI JAYANT
42	234101051	SUNNY PRIYADARSHI
43	234101052	SUSMIT DAS
44	234101053	UJJAWAL MAWAR
45	234101055	VIKAS KUMAR KHURENDRA
46	234101058	ABHINIT SINGH
47	234101059	AKSHAT DUBEY
48	234101060	AYUSH AGARWAL
49	234101061	CHENNA KESHAVA REDDY VENNAPUSA
50	234101062	PARAM BHARATBHAI PATEL
51	234101063	SHANTANU SHRIVASTAV
52	234101064	SHUBHAM MOURYA
53	234101065	SOUHARDYA HALDER
54	234101066	VINAYAK BHAUSAHEB ICHAKE

List of students who have fulfilled the requirements for award of Master of Technology in Electronics and Electrical Engineering

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1	224102204	KETHIRI NARSIMHA REDDY
2	224102309	BAPAN GOUTAM
3	224102310	DEBABRATA MAHATO
4	224102320	SHUBHAM SUNIL SAXENA
5	224102402	AKSHAY KUMAR
6	224102407	KARTIKEYA MISHRA
7	224102413	RACHIT SINGH
8	224102415	SAIKRISHNA DONTHULA
9	234102002	DARSHAN R S
10	234102003	JILITKHO NARZIHARY
11	234102004	RISHITHA PULLURU
12	234102005	AMIT KUMAR YADAV
13	234102006	ANVESH BUNGA
14	234102007	DIKSHA VIJAY PAWAR
15	234102008	JONNALAGADDA THARUN KUMAR
16	234102009	KETAKI VERMA
17	234102011	MANSI NEMA
18	234102012	RAHUL TYAGI
19	234102013	RAJA RAHUL GODESI
20	234102014	SIMRAN RAJ
21	234102015	SUBHAJIT MONDAL
22	234102016	ABHINAV SHARMA
23	234102102	ATHEESHLAL LALSAN PALLATH
24	234102103	KOTTANA SAI PRANEETH
25	234102104	KUMAR SHASHANK SHEKHAR
26	234102105	RANJEET KUMAR
27	234102110	MOUNI RISHITHA PERIKA
28	234102111	PATURI VENKATADRI
29	234102201	DALESH GAURISHANKAR PATLE
30	234102206	SAYAN GHOSH
31	234102208	SONU SHRIKANT
32	234102209	SOURAV SARKAR
33	234102210	SUSMITA KALIDAHA
34	234102211	SHANTANU SINGH CHAUHAN
35	234102302	AMIT NAGORA
36	234102303	ASUTOSH SAHU
37	234102304	DILLIP S
38	234102308	RAJAVELU E
39	234102309	YASHKUMAR SANJAYKUMAR NATHOLIA

40	234102310	ADRIJA DAS
41	234102311	BHAVESH JOSHI
42	234102312	CHERUPELLI ANVESH
43	234102314	JITHU J
44	234102316	PRITAM KUMAR SINGH
45	234102318	POOJA KUMARI
46	234102407	CHARUGUNDLA SAI BHARATH
47	234102408	DEEPIKA S
48	234102409	HARSH KUMAR TIWARI
49	234102410	KARTALI CHANUKYA
50	234102411	KASI VISWANADHAM NAIDU BODEPU
51	234102413	NAGENDRA KUNDRAPU
52	234102414	PUSHPENDRA GURJAR
53	234102416	SEEKU LOKESH KUMAR
54	234102418	VARUNKUMAR REDDY ABBANNAGARI
55	234102419	AMEEN MOHAMMED
56	234102420	GANGALA VENKATA SAI
57	234102421	PRAJAKTA ARVIND WAKDE
58	234102422	SAURABH KUMAR
59	234102501	ARYA MALLICK
60	234102505	MEESALA GANESH
61	234102508	YOGESH KUMAR CHAUHAN

List of students who have fulfilled the requirements for award of Master of Technology in Mechanical Engineering

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1	214103411	GAURAV SAXENA
2	214103430	SAURAV KAMAL MEDHI
3	224103003	KAUSTAV KASHYAP
4	224103010	SWARANJEET SINGH DHILLON
5	224103111	VIVEK SAROTE
6	224103303	AMIT KUMAR
7	224103432	SINGH ABHISHEK RANJAN
8	234103001	ABHIJEET
9	234103002	SUMIT VAJRE
10	234103003	ASHLESHA RAMTEKE
11	234103005	KULDEEP SINGH
12	234103006	NISHANT SHARMA
13	234103007	RITIK SHARMA
14	234103008	SHIV PRATAP SINGH
15	234103009	SOURAV DALAL CHOWDHURY
16	234103010	SUMATI RAGHAV
17	234103103	DEEPAK YADAV
18	234103104	DEVRAJ SINGH GAIDU
19	234103105	MAYANK SINGH
20	234103107	NIRMAL S
21	234103108	RISHAVDEB GHOSH
22	234103111	SUMITESH BEHERA
23	234103202	DEEPJYOTI GOGOI
24	234103203	HASIBUL ISLAM
25	234103204	KANHAIYA KUMAR
26	234103208	ROHIT SHAW
27	234103210	SAZID AHMED ZADID
28	234103211	VISHNUMOLAKALA MADHUVAMSI
29	234103212	AKASH DEWANGAN
30	234103213	BIDYUT BIKASH DUTTA
31	234103214	BUDDHA DEV KUMAR
32	234103215	DHIVYA SWAROOP S
33	234103216	DILESWAR MEHER
34	234103218	GULSHAN KUMAR SAO
35	234103219	HEMALATHA S
36	234103220	MEBANSHEM L LYNGDOH
37	234103221	RAUSHAN KUMAR
38	234103222	SAHIL SHEKH MANSURI
39	234103223	SAURABH PAL
40	234103224	SAURAV GAUTAM SANKALE

41	234103225	SHAIK MAHABOOB BASHA
42	234103226	SHEKHAR VERMA
43	234103227	SIBIRAJAN R
44	234103228	SREERAG BALAKRISHNAN
45	234103229	SUBHASH SANJAY SALUNKHE
46	234103230	TEJAS ARANDHARA
47	234103231	VISHAL DEY
48	234103301	ABHISHEK GAUTAM
49	234103304	AMIT KUMAR MISHRA
50	234103306	DEVENDRA KEDARNATH CHAUDHARI
51	234103309	KOLLI SAISANTOSH RASMIK
52	234103310	LAKAVATH NANDA KISHORE NAIK
53	234103311	MANISH KUMAR PRASAD
54	234103312	MUHAMMED RAMEEZ VM
55	234103313	PRAKASH CHANDRA
56	234103314	PRANIT DHARMRAJ WANKHADE
57	234103315	PRATHAMESH DEEPAK DAND
58	234103316	RATNENDRA KUSHWAHA
59	234103317	SANJAY KALITA
60	234103318	SANJAY MEGHVANSHI
61	234103320	SUNNY RAJENDRA PRASAD
62	234103323	DIVYAPRAKASH P G
63	234103324	HARDIK DAVE
64	234103328	NARESH KUMAR BIJARNIYA
65	234103329	NISHANT NANASAHEB JAGTAP
66	234103330	PRADHEEP NARAYANAN
67	234103331	ROHIT SRIVATSAV KUDIGANTI
68	234103332	SAURABH KUMAR
69	234103333	SUSHIL KUMAR
70	234103334	SWAPNIL YADAV
71	234103401	AADIL ASHRAF
72	234103402	AAMIR HAIDER
73	234103404	AMAN PATEL
74	234103405	AMIT SINGH
75	234103406	ANJANEYADORA ADAPA
76	234103407	ANJEET KUMAR
77	234103410	ANUBHAV
78	234103411	ASHISH SINGH RANA
79	234103415	DIGVIJAY CHANDRASEN THAKARE
80	234103416	DUDALA RAJANIKANTH
81	234103417	GAURANG SANJAY KARGUTKAR
82	234103418	HARSHA VARDHAN MANNAM
83	234103419	HARSHA VARDHAN PANDRANKI

84	234103420	HARSHIT PARAMHANS
85	234103421	KONAPALA SAI SRAVAN
86	234103422	MARRI MAHESWARA REDDY
87	234103424	NIHAL KUMAR
88	234103427	PENDYALA VENKATA PAVAN PRUDHVI
89	234103428	PONNANA VENUMADHAV
90	234103431	RAHUL DIGAMBER HAJARE
91	234103437	SHIVAM KUMAR JAISWAL
92	234103441	T LHINGMINCHONG HAOKIP
93	234103442	VIKAS KUMAR
94	234103444	ASIF KHAN
95	234103445	MUHAMMED RISWAN

List of students who have fulfilled the requirements for award of Master of Technology in Civil Engineering

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4	224104201	ABHINAV GUSAIN
5	224104416	SAGAR GUPTA
6	224104422	SUMIT KUMAR MISHRA
7	224104426	ZAID ALI
8	224104603	JINGUSIE NYUTHE
9	224104604	RAJIB DAS
10	224104607	ANSHUMAN PANDA
11	224104617	PAYEL SAM
12	234104001	RASHID HAMID BABA
13	234104003	KM DIVYA GUPTA
14	234104004	LAKSHMI PRIYA PB
15	234104005	NAGESH CHAUDHARY
16	234104006	PRANJUL SAHU
17	234104007	REVATHI NAGARAJU GUNDLURI
18	234104008	ROJALIN PANDA
19	234104009	SHUBHAM MISHRA
20	234104011	VIPLAV PRAKASH
21	234104101	ADITYA BHANJA
22	234104102	AKHIL SHUKLA
23	234104103	ASHVINKUMAR BALASAHEB BAVISKAR
24	234104104	BENOJIR RAHAMAN
25	234104105	DHEERAJ PARGAI
26	234104107	LAKSHYA GUPTA
27	234104108	MD AMIR SUHAIL
28	234104109	NISHTHA BARMAN HAJONG
29	234104110	PRANAV KUMAR VATSA
30	234104111	PUNKESH KUMAR
31	234104112	RAHUL RAI
32	234104113	RISHABH
33	234104114	SANDIP GHOSH
34	234104115	SANJAY PATEL
35	234104116	SHIVANG SRIVASTAVA
36	234104117	SOUVIK SARKAR
37	234104119	TRIDISHA BORA
38	234104120	BIPLOB GOGOI
39	234104201	CHAKRADHAR BALAGA

40	234104202	DASARI NITHIN
41	234104203	DEVABRATA BASUMATARI
42	234104205	MANISH KUMAR
43	234104206	OMKAR TIWARI
44	234104208	SAKET RAJ
45	234104210	SAURABH VERMA
46	234104211	P VAIDEHI PRAVALLIKA
47	234104212	YOGESH NAUTIYAL
48	234104213	ABHAY GAUR
49	234104214	ABHISHEK SHUKLA
50	234104215	AMISHA NAIR
51	234104216	AMIT SINGH PATEL
52	234104217	MISBAHUL KHAN
53	234104218	RAMA DEBBARMA
54	234104219	SAMEER NEGI
55	234104220	SELIM ZAHAN
56	234104221	SHUBHAM
57	234104222	SMITH KUMAR HIMANSHU
58	234104223	VINOD KUMAR YADAV
59	234104301	ANAND KUMAR SINGH
60	234104302	PARMARTH SAINI
61	234104304	RAHUL KUMAR GUPTA
62	234104305	RUSHIL RUPEN VASHI
63	234104306	SURYADIP RAJENDRA PATIL
64	234104307	MIGAM DANG
65	234104308	RAKSHIT SHUKLA
66	234104401	ABHISHEK
67	234104402	AMAN KUMAR
68	234104403	AMINUL ISLAM
69	234104405	ATUL DUBEY
70	234104406	AVINASH KUMAR VERMA
71	234104407	AYUSH KUMAR SINGH
72	234104409	DANDEM NAVEEN SURYA NARAYANA
73	234104410	JITENDRA YADAV
74	234104411	KAKARLA BHANU TEJA REDDY
75	234104412	MARUMUDI TARUN KUMAR
76	234104413	MAYANK CHAKRAVARTI
77	234104414	MD MERAZ AHMAD
78	234104415	MOHIT KUMAR
79	234104418	PRABHAT KUMAR
80	234104420	SAGAR R BANGERA
81	234104423	SHORYA BHATI
82	234104424	SHUBHAM SINGH

83	234104426	SUMIT KUMAR
84	234104427	SURESH ESARLA
85	234104429	VAKUL GOEL
86	234104431	BOMMIN BAM
87	234104432	NALLURI SANDHYA
88	234104433	RAMESH KUMAR
89	234104501	ABHISHEK KUMAR
90	234104502	GOLLA NAVEEN
91	234104503	HARISCHANDRA CHOURYAL
92	234104504	HIMANSHU CHOUDHARY
93	234104505	HIMANSHU NIRWAN
94	234104506	MAYANK SEMWAL
95	234104507	PANKAJ KUMAR
96	234104508	POTNURU KARUN
97	234104509	PRITAM PRAKASH SHAH
98	234104510	RAHUL KUMAR
99	234104511	SACHIN VIJAY BORKAR
100	234104512	SAGNIK PAUL
101	234104513	VAIBHAV S MALIPATIL
102	234104514	YASH
103	234104515	LIMO SORA
104	234104516	SHIVAM BHAI PATEL
105	234104517	SHUBHAM
106	234104518	UPENDRA YADAV
107	234104519	VINEET KASHYAP
108	234104601	CHONGPI LUPHENG
109	234104602	JITENDRA SEERVI
110	234104603	LISA ROSE PRINCE
111	234104605	NIKHIL PRAMOD BHENDE
112	234104608	DIPANKAR BARDALAI
113	234104609	AALBIN SIMON
114	234104610	AMAN KUMAR GAUTAM
115	234104611	ANGOM AMARJIT SINGH
116	234104612	ASHFAQUE MAJEED GOJREE
117	234104613	BEDANTA DAS
118	234104614	HIMANSU BARMAN
119	234104615	ISHAN DUBEY
120	234104616	KASTURI KRISHNA KALITA
121	234104617	MANISH BHAGAT
122	234104618	RAJDEEP NATH
123	234104619	SAHASTRANSHU SHUKLA
124	234104620	SAURABH VERMA
125	234104621	SUHEL AHMAD

List of students who have fulfilled the requirements for award of Master of Technology in Biotechnology

S.No.	Rollno	NAME
1	234106001	AARTHI MURALI
2	234106002	AKSHAT MOHLA
3	234106003	ATCHAYA J
4	234106004	CHAHAT GOYAL
5	234106006	GANGADHAR KATCHALA
6	234106007	GOURAB CHATTERJEE
7	234106008	GURUPRASAD NARASINH KULKARNI
8	234106009	HIMANSHU KUMAR MEENA
9	234106010	HIMANSHU SINGH
10	234106011	JAGADEESH KUMAR REDDY MUTRA
11	234106012	KANISH NAREEN V
12	234106013	KOMAL PRIYA
13	234106014	LATISHA DAS
14	234106015	MANSI BISWAS
15	234106016	NAYAN JAIN
16	234106017	NILANJANA DEB
17	234106018	NITHISH P
18	234106019	PARTHA PRATIM SIKDAR
19	234106020	PRATIK MOHANTY
20	234106021	PRATIM BISWAS
21	234106022	R DHEEPAK
22	234106024	SAYAN BISWAS
23	234106025	SELVA PARAMESHWARI S
24	234106026	SHAALINI S
25	234106027	SHAURYA SINGH
26	234106028	SNEHA CHOWDHURY
27	234106029	SOUVIK PAL
28	234106030	SREEMA M
29	234106031	SRIVATSAN R
30	234106032	SULAIHA JUVAIRIYA
31	234106034	SUSMITA DEY
32	234106035	TANMAY JADHAV
33	234106036	TEJASWINI V JATTI
34	234106037	TRISHITA MANDAL
35	234106038	PARASURAM MUNDA
36	234106040	RIDDHIMAN CHATTERJEE
37	234106041	SHIVANI KUMARI
38	234106042	SHIVANI MITTAL
39	234106043	SHRISTY JHA

40	234106044	SUBHADWIP DEY

List of students who have fulfilled the requirements for award of Master of Technology in Bioengineering

S.No.	Rollno	NAME
1	234111001	ADITYA MENON
2	234111002	ANNU ANAND
3	234111003	DIVYA SAINI
4	234111004	NIHARIKA ASHISH KULKARNI
5	234111005	NILAKSHI KAKATI
6	234111006	THILAKRAJ S
7	234111008	SATARUPA DEB SINHA
8	234111009	SATYAM AGRAWAL

List of students who have fulfilled the requirements for award of Master of Technology in Chemical Engineering

S.NO.	ROLLNO	NAME
1	234107002	BHAWANI SHANKAR
2	234107003	BISWARANJAN RATH
3	234107004	BOOREPALLI GANGAIAH
4	234107005	FIZA ALAM
5	234107006	GANTEPALLI VIKAS
6	234107007	HARENDRA SINGH
7	234107008	HUDA NAVEED KHAN
8	234107009	JAGGU NAIK BANOTH
9	234107010	MONALI S RAJAK
10	234107011	MONDAM SASI KUMAR
11	234107012	MURRU PURNA ANAND KUMAR
12	234107013	PONNALA PRATHEEK
13	234107015	SURAJ DAS
14	234107102	BABLU SINGH
15	234107103	BISHAL BAISHYA
16	234107104	BULLO ATO
17	234107105	CHIRAG VARSHNEY
18	234107106	DIVYANSH ADHA
19	234107107	JAANDEEP BARUAH
20	234107108	KASHMARY BASUMATARI
21	234107109	LIZA MILI
22	234107110	MANGAVALLI SAI SIDDHARTHA
23	234107111	MD ADIL
24	234107112	NEHA RAVINDRA KHOKRALE
25	234107113	NISHANT ASATI
26	234107114	PAPU BHOWMIK
27	234107115	PRAJAPATI PANKAJ BIRENDRA
28	234107116	PUJA BASAK
29	234107117	RAVINA PATLE
30	234107119	RISHABH KUMAR
31	234107120	RISHIKESH K
32	234107121	ROHIT VINAYAK VIDHATE
33	234107123	SHAGUN DAHIYA
34	234107124	SHOUVIK CHANDA
35	234107125	ROHIT CHAUDHARY
36	234107202	MD ZAFFAR ZESHAN
37	234107203	MOHD SHAFAK SIDDIQUI
38	234107205	SATYA SIBANANDA SAHU
39	234107206	SUDHAKAR VERMA

	234107207	VENKATA SATYANARAYANA PENTAPALLI

List of students who have fulfilled the requirements for award of Master of Technology in Food Science and Technology

S.No.	Rollno	Name
1	234162001	GOTO SHUNTA
2	234162002	HAYASHI SUZUNE
3	234162003	SUGIHARA SAKI
4	234162004	KENENIAH ELFRED JYRWA
5	234162006	MOHD ATIF
6	234162007	SAI SREEJA SUNKARA
7	234162008	SAPNA KUMARI

List of students who have fulfilled the requirements for award of Master of Technology in Robotics and Artificial Intelligence

S.No.	Rollno	NAME
1	234156001	ANIKET DEWANGAN
2	234156002	ANIKET SHRIVASTAVA
3	234156003	DEEPAK YADAV
4	234156004	DHAVAL NARESHBHAI PARMAR
5	234156006	HRITICK ROY
6	234156008	KATHROTIYA SANKET JITENDRABHAI
7	234156009	KULDEEP PATEL
8	234156010	LABESH KUMAR GARG
9	234156011	MADHUSUDAN
10	234156012	MOHD ADIL KHAN
11	234156013	BADSHAH MUJAHID HUSAIN SHAHID HUSAIN
12	234156014	NEERAJ KUMAR SINGH
13	234156016	SHREY DIPAKBHAI BHUVA
14	234156017	SUCHIT SARKAR
15	234156019	TEIBOKLANG CHYNE
16	234156020	VAIBHAV KUMAR DEWANGAN
17	234156021	VENKATASAI DODDAKA
18	234156022	DEEPANJALI SHARMA
19	234156023	KRISHNA KUMAR BHARTI
20	234156025	NIKETAN SANJAY PAWAR
21	234156026	PARTH SATISH SANIL
22	234156027	RAHUL KUMAR
23	234156028	REETU RAJ CHAUHAN
24	234156029	ROHIT SHARMA
25	234156030	SEETHA RAMANJANEYA PRASADARAO PULIGADDA
26	234156031	VISHAL NARAYAN DEKA
27	234156032	KUMAR PRASENJEET SARKAR
28	234156033	KULWINDER SINGH AOULAKH

List of students who have fulfilled the requirements for award of Master of Technology in Rural Technology

S.No.	Rollno	Name
1	234154001	MAITREE DUTTA
2	234154002	PRONAY DEY
3	234154004	SAURABH RAMESH PANTAWANE

List of students who have fulfilled the requirements for award of Master of Technology in Biomedical Science and Engineering

S.No.	Rollno	NAME
1	234159001	AISHWARYA KUMAR SINGH
2	234159002	AJAY KUMAR
3	234159003	ANIRBAN MAJUMDER
4	234159004	JOTHAM SAIBORNE
5	234159006	KISLAY CHATURVEDI
6	234159007	KONDURU VENKATA SANDEEP
7	234159008	NILIM KR KONWAR
8	234159011	PRATIKRAJ SUBHASH PAWAR
9	234159012	RAKSHA RAY
10	234159013	SAHIL SINGH
11	234159014	SAKSHI SURYAWANSHI
12	234159016	VIVEK KUMAR RANJAN
13	234159018	GANGA SAGAR VERMA
14	234159019	SHIVANI
15	234159101	ANANYA PANDEY
16	234159102	ARPITA SHARMA
17	234159103	KUMARI TEJASWINI
18	234159104	KUNAL SHIVAJI ALDAR
19	234159105	NIRMITI NIKET ETAMBE
20	234159106	ROHITH REDDY N
21	234159107	SHIVA VERMA
22	234159108	SAINA GUPTA

List of students who have fulfilled the requirements for award of Master of Business Administration

S.No.	Roll No.	NAME
1	234024001	AKUMONI PEGU
2	234024002	ARAVINDHAN S
3	234024003	ASHUTOSH KUMAR PANDEY
4	234024004	BAIBHABA NATH
5	234024005	BARSA DAS
6	234024007	GAURAV KASHYAP
7	234024008	KAUSHIKI VIJAYVARGIYA
8	234024009	MAKRAND MISHRA
9	234024010	MANSI AGARWAL
10	234024011	MAYANK MANGAL
11	234024012	MEDHA MISHRA
12	234024013	MUSKAAN CHADDHA
13	234024014	PRAGATI KUMARI
14	234024016	RAHUL KUMAR
15	234024017	RAJIB DAS
16	234024018	RIDHIMA PURUSHOTTAM CHANDAN
17	234024019	RITURAJ CHOUDHURY
18	234024020	SAURABH YADAV
19	234024021	SHARVAN KUMAR
20	234024022	SHARWARI AJAY DHARASKAR
21	234024024	THOTAKURA VENKATA ANUDEEP NAIDU

List of students who have fulfilled the requirements for award of Master of Design

S.No.	Roll No.	Name
1	234205001	ACHINT SHRINGI
2	234205002	AKASH KUMAR SINGH
3	234205003	AMRUT PRAKASH
4	234205005	APARNA REKHLAL PARDHI
5	234205006	BHAVYA GUPTA
6	234205007	BHUWAN MAHATO
7	234205008	CHITRANSH ANAND
8	234205009	DAMINI JAISWAL
9	234205010	DEVJANEE MONDAL
10	234205011	DOROTHY GOSWAMI
11	234205012	DURGA PRASAD MOHAPATRA
12	234205013	HARSH
13	234205014	ISHAN ADITYA
14	234205015	JOYDEEP BHAKAT
15	234205016	K SHRIKARAN
16	234205017	KIRAN R L
17	234205018	MADHAV KETAN SOMPURA
18	234205019	MANSI
19	234205020	MAYURI DEKA
20	234205021	MOHIT ANIL INGLE
21	234205022	NAVEEN KUMAR REDDY UMMIREDDYGARI
22	234205023	RANA SARKAR
23	234205025	RISHABH SIDDHARTH
24	234205026	SAURABH RAHUL SARDAR
25	234205027	SHIKSHA SINGH
26	234205028	SIMRAN PANDIT
27	234205029	SUBHAM MARANDI
28	234205030	SUMAN DAS
29	234205031	THALLAPAKA KRISHNA REVANTH
30	234205032	WESKERLAND LYNGKHOI
31	234205033	YUVASHREE BABU
32	234205034	MANISH GAUD
33	234209001	ADITH PHILIP MATHEW
34	234209002	ADITI PATIL
35	234209003	ADITYA KUMAR
36	234209004	ANISH KARAN
37	234209006	ARANYA BHUSHAN SHAH
38	234209007	AROHAN NEOG
39	234209009	DRASHTI VISHNU SAGAR
40	234209010	GAYATRI RAVINDRA VYAWAHARE

41	234209011	HARSH P
42	234209012	HARSH VIJAY PATEL
43	234209013	HRISHITAA CHETIA
44	234209014	HRITAM SARKAR
45	234209015	KAUSHIK DEKA
46	234209016	MAYANK CHAURASIA
47	234209017	PRAJAKTA RAJU ABHYANKAR
48	234209018	PRATIK SANTOSH JADHAV
49	234209019	PRIYA KISHORBHAI TANDEL
50	234209020	RAVI RISHAV
51	234209021	ROHIT RAVISHANKAR SHETTY
52	234209022	SAARTHAK TEHLAN
53	234209023	SONALI SHARIKRUSHNA ARBAL
54	234209024	UJJWAL SARASWAT
55	234209025	UTPAL DUTTA
56	234209026	VINAY DATTATRAYA ACHARYA
57	234209027	YASH THAKUR

List of students who have fulfilled the requirements for award of Master of Science by Research

S.No.	Rollno	NAME	Discipline
1	234351001	RAHUL SHARMA	Energy Science and Engineering
2	234351002	SHARAT CHANDRA	Energy Science and Engineering
3	234351003	SUBHAM NATH LASKAR	Energy Science and Engineering
4	234351004	ANSHUL SONI	Energy Science and Engineering
5	234351005	BHARGAV RAJBANGSHI	Energy Science and Engineering
6	234351006	CHANDRA SHEKHAR MAHATO	Energy Science and Engineering
7	234351007	KAMAKSH GURJAR	Energy Science and Engineering
8	234351008	PRACHURJYA JYOTI HAZARIKA	Energy Science and Engineering
9	234351010	SHIVAM RAJ	Energy Science and Engineering
10	234351011	SIDDHI	Energy Science and Engineering
11	234351012	SRIJIT CHAKRABARTI	Energy Science and Engineering
12	224357008	SWATEYA GUPTA	Disaster Management and Risk Reduction
13	234357002	MAYANK HEDAU	Disaster Management and Risk Reduction
14	234357003	WAQUAR UL ISLAM	Disaster Management and Risk Reduction
15	224358005	PUJA KUMARI	Polymer Science and Technology
16	224358007	SIDDHANTA BISHI	Polymer Science and Technology
17	234358001	ANUSHKA SUDHIR WALKE	Polymer Science and Technology
18	234363002	GAURAV GILL	E-Mobilty

List of students who have fulfilled the requirements for award of Dual Masters' + PhD

S.No.	Roll No.	Name	Academic Division
1	126201003	KUNWER MRITYUNJAY SINGH	Department of Computer Science and Engineering
2	156201002	DIPOJJWAL RAY	Department of Computer Science and Engineering
3	166302001	ADITYA RAOSAHEB PAWAR	Department of Electronics and Electrical Engineering
4	166302007	ATANU PURKAYASTHA	Department of Electronics and Electrical Engineering
5	166302008	RAJU DAHAL	Department of Electronics and Electrical Engineering

List of PhD/Dual Degree students who have opted to receive final degree certificate after 22nd Convocation and prior to 23rd Convocation

S.No	Roll No.	Name	Academic Division
1	156101007	SUBRATA NANDI	Department of Computer Science and Engineering
2	176101002	ASWATHY N S	Department of Computer Science and Engineering
3	176101010	SIVAKUMAR S.	Department of Computer Science and Engineering
4	176101011	SWAGAT RANJAN SAHOO	Department of Computer Science and Engineering
5	176101101	NILOTPAL BISWAS	Department of Computer Science and Engineering
6	176101103	AVINASH KUMAR CHOUHAN	Department of Computer Science and Engineering
7	186101005	NIDHI AHLAWAT	Department of Computer Science and Engineering
8	186101009	SURAJ KUMAR PANDEY	Department of Computer Science and Engineering
9	186101010	THIYAM SUSMA DEVI	Department of Computer Science and Engineering
10	186101012	MANJU R	Department of Computer Science and Engineering
11	186101102	AMIT PURI	Department of Computer Science and Engineering
12	186101103	VANSHALI SHARMA	Department of Computer Science and Engineering
13	186101104	KARNISH NASRIN AHMED TAPADAR	Department of Computer Science and Engineering
14	196101002	KOMAL BHARTI	Department of Computer Science and Engineering
15	196101005	SANDIPAN SARMA	Department of Computer Science and Engineering
16	206101104	NEERAJ SHARMA	Department of Computer Science and Engineering
17	216101010	SYAM SANKAR	Department of Computer Science and Engineering
18	146102026	TAKO NAMA	Department of Electronics and Electrical Engineering
19	146102033	SIVARAMA PRASAD TERA	Department of Electronics and Electrical Engineering
20	156102021	MAHARI BERHE TSEGAY	Department of Electronics and Electrical Engineering
21	156102027	SARFARAZ JELIL	Department of Electronics and Electrical Engineering
22	156102030	SHASHANK KUMAR	Department of Electronics and Electrical Engineering

23	166102008	DEEPAK AGRAWAL	Department of Electronics and Electrical Engineering
24	166102102	THOCKCHOM BIRJIT SINGHA	Department of Electronics and Electrical Engineering
25	176102102	ENKONDA VENKATA POTHAN	Department of Electronics and Electrical Engineering
26	186102008	H PALLAB JYOTI DUTTA	Department of Electronics and Electrical Engineering
27	186102009	MOUSUMI DAS	Department of Electronics and Electrical Engineering
28	186102016	TANMAY BHOWMIK	Department of Electronics and Electrical Engineering
29	186102017	VINEET KUMAR	Department of Electronics and Electrical Engineering
30	186102113	SAQUIB MAZHAR	Department of Electronics and Electrical Engineering
31	196102006	KANUMURI DEEPAK	Department of Electronics and Electrical Engineering
32	196102012	SHIKHA SHARMA	Department of Electronics and Electrical Engineering
33	196108113	RUSHIK PARMAR	Department of Electronics and Electrical Engineering
34	206102028	TITU MARY IGNATIUS	Department of Electronics and Electrical Engineering
35	206102106	SAI KRISHNA MULPURI	Department of Electronics and Electrical Engineering
36	206102108	VAMSI PRIYA GOLI	Department of Electronics and Electrical Engineering
37	10610302	PRANJOL PAUL	Department of Mechanical Engineering
38	11610310	BIPLAB DAS	Department of Mechanical Engineering
39	126103009	BISWAJYOTI DAS	Department of Mechanical Engineering
40	166103003	PARTHA PRATIM KEMPRAI	Department of Mechanical Engineering
41	166103019	NANDANI RAI	Department of Mechanical Engineering
42	166103024	DATTATRAYA S KULKARNI	Department of Mechanical Engineering
43	166103109	VAIBHAV JAISWAL	Department of Mechanical Engineering
44	176103010	DURGARAO KAMIREDDY	Department of Mechanical Engineering
45	176103015	NILKAMAL MAHANTA	Department of Mechanical Engineering
46	176103019	S SAI KUMAR	Department of Mechanical Engineering
47	176103030	HIRAKJYOTI BASUMATARY	Department of Mechanical Engineering
48	176103115	VIVEKANANDA HALDAR	Department of Mechanical Engineering
49	176103116	DHIRENDRA KUMAR VERMA	Department of Mechanical Engineering
50	186103004	ANAND VERMA	Department of Mechanical Engineering
51	186103009	BASTAV BORAH	Department of Mechanical Engineering

52	186103021	MAN MOHAN	Department of Mechanical Engineering
53	186103028	RITAM SARMA	Department of Mechanical Engineering
54	186103035	TANUJ SRIVASTAVA	Department of Mechanical Engineering
55	196103002	ABIR SAHA	Department of Mechanical Engineering
56	196103010	AVNEESH KUMAR	Department of Mechanical Engineering
57	196103019	NIKHIL DILIP KULKARNI	Department of Mechanical Engineering
58	196103030	TAT SURAJ ARUN	Department of Mechanical Engineering
59	206103011	DHANANJAY KUMAR	Department of Mechanical Engineering
60	206103018	PATEL BHAVIK MAHESHKUMAR	Department of Mechanical Engineering
61	206103110	DHRUTIMAN DEY	Department of Mechanical Engineering
62	216103111	TUN NAING AYE	Department of Mechanical Engineering
63	126104032	SATHISHRAJ M	Department of Civil Engineering
64	156104041	JHUMA DEBNATH	Department of Civil Engineering
65	166104021	RANJIT DEKA	Department of Civil Engineering
66	166104030	SOUMI RAJBANSHI	Department of Civil Engineering
67	176104102	ARKA MITRA	Department of Civil Engineering
68	186104002	AKHILA V	Department of Civil Engineering
69	186104005	ANJISHNU BISWAS	Department of Civil Engineering
70	186104015	HIMANSHU YADAV	Department of Civil Engineering
71	186104016	INDUCHOODAN T G	Department of Civil Engineering
72	186104105	SURENDER SINGH	Department of Civil Engineering
73	186104107	RIYA ROY	Department of Civil Engineering
74	186104109	NUTHALAPATI MAHESH BABU	Department of Civil Engineering
75	186104111	ABHISHEK KAMISETTY	Department of Civil Engineering
76	186104113	NUR MAHAMMAD MUSSA KALIMULLAH	Department of Civil Engineering
77	186104114	TORI BASAR	Department of Civil Engineering
78	186104116	MANISH SINGH RANA	Department of Civil Engineering
79	196104002	ANKUSH KUMAR	Department of Civil Engineering
80	196104026	SHIVAM OJHA	Department of Civil Engineering
81	196104104	BODDEPALLI UDAY	Department of Civil Engineering
82	196104107	GUNTAKALA VENKATANAGA CHANDRA	Department of Civil Engineering
83	206104008	HARISH KUMAR PATEL	Department of Civil Engineering
84	206104017	SAMALLA SHIVASAI	Department of Civil Engineering
85	206104020	SUKHJEET ARORA	Department of Civil Engineering
86	206104033	ARNAB BANERJEE	Department of Civil Engineering
87	166105102	NILUTPAL BORGOHAIN	Department of Design
88	166105103	JITESH SINGH CHAUHAN	Department of Design
89	166105107	CHIRAPRIYA MONDAL	Department of Design
90	176105008	MANESWAR BRAHMA	Department of Design
91	176105105	GURDEEP SINGH	Department of Design

92	186105005	MONIKUNTALA DAS	Department of Design
93	186105101	PRARTHANA MAJUMDAR	Department of Design
94	196105003	JETTI RAHUL	Department of Design
95	196105009	SURESH GODUKA	Department of Design
96	156106010	SUNANDA CHHETRY	Department of Biosciences and Bioengineering
97	166106004	SATAKSHI HAZRA	Department of Biosciences and Bioengineering
98	166106021	YASHAVANTH P R	Department of Biosciences and Bioengineering
99	166106031	RAVI GEDELA	Department of Biosciences and Bioengineering
100	166106104	VINEET ANAND	Department of Biosciences and Bioengineering
101	166106111	SAYAN SAHA	Department of Biosciences and Bioengineering
102	176106003	KIRAN VILAS DHOBALE	Department of Biosciences and Bioengineering
103	176106013	LAIPUBAM GAYATRI SHARMA	Department of Biosciences and Bioengineering
104	176106015	SURAJ KUMAR PANDA	Department of Biosciences and Bioengineering
105	176106018	ARMAN MOHANTY	Department of Biosciences and Bioengineering
106	176106022	PRATIK DASGUPTA	Department of Biosciences and Bioengineering
107	176106024	ALOK KUMAR PANDEY	Department of Biosciences and Bioengineering
108	176106028	POOJA RANI KURI	Department of Biosciences and Bioengineering
109	176106101	SOSMITHA GIRISA	Department of Biosciences and Bioengineering
110	176106103	NOOR MOHAMMED	Department of Biosciences and Bioengineering
111	176106110	KHYATI RAINA	Department of Biosciences and Bioengineering
112	176106117	AMAN BHARDWAJ	Department of Biosciences and Bioengineering
113	186106002	BIBRITA BHAR	Department of Biosciences and Bioengineering
114	186106005	KRISHNA KANT PACHAURI	Department of Biosciences and Bioengineering
115	186106008	PARMESHWAR GAVANDE	Department of Biosciences and Bioengineering
116	186106017	SIDDHARTH NEOG	Department of Biosciences and Bioengineering
117	186106102	NUZELU	Department of Biosciences and Bioengineering
118	186106108	KAMAL SHOKEEN	Department of Biosciences and Bioengineering
119	186106112	SASWAT HOTA	Department of Biosciences and Bioengineering
120	186106114	DEVISMITA SANJAY	Department of Biosciences and Bioengineering
121	186106116	ARUPAM PATRA	Department of Biosciences and Bioengineering
122	186106119	JEBIN AHMED	Department of Biosciences and Bioengineering
123	196106002	AJIT KUMAR	Department of Biosciences and Bioengineering
124	196106017	PAYAL MUKHERJEE	Department of Biosciences and Bioengineering
125	196106022	SHILPI SARKAR	Department of Biosciences and Bioengineering
126	196106025	SURABHI GUPTA	Department of Biosciences and Bioengineering
127	206106023	THIRUKUMARAN K	Department of Biosciences and Bioengineering
128	226106115	YUSUKE TAGA	Department of Biosciences and Bioengineering
129	146107042	REMYA KOMMADATH	Department of Chemical Engineering
130	156107002	DEBASIS MAHARANA	Department of Chemical Engineering
131	156107008	SOUMI SARKAR	Department of Chemical Engineering

132	166107017	HANUMANTH REDDY PEMMANA	Department of Chemical Engineering
133	166107116	RAHUL KUMAR	Department of Chemical Engineering
134	166107117	GEETANJALI BHATI	Department of Chemical Engineering
135	176107008	SHEKHAR JYOTI PATHAK	Department of Chemical Engineering
136	176107014	DEEPAK KUMAR MISHRA	Department of Chemical Engineering
137	176107017	KESHAV KUMAR	Department of Chemical Engineering
138	176107109	NAYANJYOTI KAKATI	Department of Chemical Engineering
139	186107003	ANWESHAN	Department of Chemical Engineering
140	186107005	GAFFER AHMED	Department of Chemical Engineering
141	186107010	PILLI RAJASEKHAR REDDY	Department of Chemical Engineering
142	186107102	INDRAJEET KUMAR	Department of Chemical Engineering
143	186107106	BALAKUMARA VIGNESH M	Department of Chemical Engineering
144	186107108	JIWAJYOTI MAHANTA	Department of Chemical Engineering
145	196107005	GUNOLLA NAGENDRA PRASAD	Department of Chemical Engineering
146	196107009	K JANAKI	Department of Chemical Engineering
147	196107013	NIKHIL RAHUL DHONGDE	Department of Chemical Engineering
148	196107014	PAUSHALI MUKHERJEE	Department of Chemical Engineering
149	196107106	NIPU KUMAR DAS	Department of Chemical Engineering
150	196107110	SATTI VENU GOPALA KUMARI	Department of Chemical Engineering
151	206107015	KOMAL VERMA	Department of Chemical Engineering
152	156121019	SUNIL MOHAN	Department of Physics
153	166121105	RAJESH KARMAKAR	Department of Physics
154	176121008	SANKET DAS	Department of Physics
155	176121009	SAMIT KUMAR HAZRA	Department of Physics
156	176121023	NITU	Department of Physics
157	186121016	NIKHIL DANNY BABU	Department of Physics
158	186121024	SHUBHANGI KRISHAN MAURYA	Department of Physics
159	196121006	BANASHREE BAISHYA	Department of Physics
160	196121009	DIPANKAR PRADHAN	Department of Physics
161	196121013	KM. SONALI GANGWAR	Department of Physics
162	196121025	ROSON NONGTHOMBAM	Department of Physics
163	196121026	SAMIK MITRA	Department of Physics
164	196121027	SARASWATI DEVI	Department of Physics
165	196121102	BHAIROV KUMAR BHOWMIK	Department of Physics
166	196121109	MIJANUR ISLAM	Department of Physics

167	206121008	BHAGWAT SINGH CHOUHAN	Department of Physics
168	166122111	KANGKAN TALUKDAR	Department of Chemistry
169	176122027	ARINDOM BIKASH NEOG	Department of Chemistry
170	176122031	RETWIK PARUI	Department of Chemistry
171	176122039	MONIKHA CHETIA	Department of Chemistry
172	176122102	SAYANTA ROY	Department of Chemistry
173	176122103	AMIT SHIKARI	Department of Chemistry
174	176122104	SUBHAMOY BISWAS	Department of Chemistry
175	176122114	HIMANGSHU PRATIM BHATTACHARYYA	Department of Chemistry
176	186122005	BAPAN SAMANTA	Department of Chemistry
177	186122007	BIKOSHITA PORASHAR	Department of Chemistry
178	186122010	DEBJYOTI PAL	Department of Chemistry
179	186122012	INDRANEEL DEBNATH	Department of Chemistry
180	186122014	KAVITA	Department of Chemistry
181	186122020	MONURANJAN KONWAR	Department of Chemistry
182	186122024	PRAN GOBINDA NANDI	Department of Chemistry
183	186122027	PRIYANKA ADHIKARI	Department of Chemistry
184	186122034	SANDEEP KUMAR	Department of Chemistry
185	186122035	SHANKHADEEP SAHA	Department of Chemistry
186	186122042	TANUMOY SARKAR	Department of Chemistry
187	186122043	TIRUPATI ROY	Department of Chemistry
188	186122045	VINAY ARORA	Department of Chemistry
189	186122048	MOIRANGTHEM ANITA CHANU	Department of Chemistry
190	186122049	SRIBASH DAS	Department of Chemistry
191	186122103	SOMNATH PAIK	Department of Chemistry
192	186122107	RAHUL SHARMA	Department of Chemistry
193	196122001	ABHAY PRATAP SINGH	Department of Chemistry
194	196122008	BIJOY DEBNATH	Department of Chemistry
195	196122010	BUBUL DAS	Department of Chemistry
196	196122015	HIRENDRA NATH DHARA	Department of Chemistry
197	196122016	JAGNYESH KUMAR SATPATHY	Department of Chemistry
198	196122019	PARVEJ KHAN	Department of Chemistry
199	196122023	RAHUL AHMED	Department of Chemistry
200	196122024	RAKTIM GOGOI	Department of Chemistry
201	196122035	SUBHANKAR BISWAS	Department of Chemistry
202	196122037	SUBHRAJYOTI GHOSH	Department of Chemistry
203	196122042	TRIPTI PAUL	Department of Chemistry
204	196122107	JAGAJIBAN SENDH	Department of Chemistry
205	216122045	SIMRA FARAZ	Department of Chemistry
206	146123009	JIBRAIL ALI	Department of Mathematics

207	186123011	PUSPENDU JANA	Department of Mathematics
208	186123015	SASMITA ROUT	Department of Mathematics
209	186123017	SUBHAJIT PRAMANICK	Department of Mathematics
210	186123102	SHIVA KANDPAL	Department of Mathematics
211	196123001	ABHIJIT SHIT	Department of Mathematics
212	196123002	ANIRUDDHA SEAL	Department of Mathematics
213	196123104	DEEPA ANTONY	Department of Mathematics
214	196123105	DEVANG SINHA	Department of Mathematics
215	196123107	GOPINATH SADHU	Department of Mathematics
216	196123112	RUPCHAND SUTRADHAR	Department of Mathematics
217	196123113	SHILPI JAIN	Department of Mathematics
218	206123009	GURINDER SINGH	Department of Mathematics
219	206123010	H LAXMI	Department of Mathematics
220	206123021	SULAKASHNA	Department of Mathematics
221	156141013	VIYAZONUO TERHIIJA	Department of Humanities and Social Sciences
222	166141104	SHUBHALIKA BORUAH	Department of Humanities and Social Sciences
223	166141109	VIKAVI K. ASSUMI	Department of Humanities and Social Sciences
224	176141002	TULIKA RANI TALUKDAR	Department of Humanities and Social Sciences
225	176141011	SATWIK UPADHYAY	Department of Humanities and Social Sciences
226	186141009	NG MAWONTHING	Department of Humanities and Social Sciences
227	186141015	SREELAKSHMI SANTHINI BAHULEYAN	Department of Humanities and Social Sciences
228	186141108	UPASNA CHETTRI	Department of Humanities and Social Sciences
229	196141004	KAGO KEVIN	Department of Humanities and Social Sciences
230	196141015	VERNON DMELLO	Department of Humanities and Social Sciences
231	196141105	PRASENJIT BARIK	Department of Humanities and Social Sciences
232	206141003	AMEER SALMAN O M	Department of Humanities and Social Sciences
233	206141009	MADAN S	Department of Humanities and Social Sciences
234	156151013	SAPTARSHI GUPTA	School of Energy Sciences and Engineering
235	176151002	ARADHANA PRIYADARSINI	School of Energy Sciences and Engineering
236	176151004	DEEPESH SINGH CHAUHAN	School of Energy Sciences and Engineering
237	176151011	SHAYARAM BASUMATARY	School of Energy Sciences and Engineering
238	176151101	PUSHPITA DAS	School of Energy Sciences and Engineering
239	186151005	MRIDUSMITA BORA	School of Energy Sciences and Engineering
240	186151007	RABINDRA KANGSA BANIK	School of Energy Sciences and Engineering
241	186151009	RISHIRAJ PURKAYASTHA	School of Energy Sciences and Engineering
242	196151005	MAIBAM PREMESHWORII DEVI	School of Energy Sciences and Engineering

243	196151010	MEBRATU ADAMU ASSEGIE	School of Energy Sciences and Engineering
244	196151102	JURI SONOWAL	School of Energy Sciences and Engineering
245	216151006	HARSHENDRA N SHET K	School of Energy Sciences and Engineering
246	126152003	SOMNATH CHANDA	Centre for the Environment
247	166152002	PRITHWI CHAYAN CHATTERJEE	Centre for the Environment
248	176152005	RUPAM BHADURI	Centre for the Environment
249	186152005	PULAKESWAR BASUMATARY	Centre for the Environment
250	196152101	BANHISIKHA DEBNATH	Centre for the Environment
251	156153002	RAMESH BABU YATHIRAJULA	Centre for Nanotechnology
252	186153002	ARCHISMITA HAJRA	Centre for Nanotechnology
253	196153001	ABDUL KAIUM MIA	Centre for Nanotechnology
254	196153010	TADASHA JENA	Centre for Nanotechnology
255	166154101	BHABESH MAHANTA	School of Agro and Rural Technology
256	186154004	SRIMONTI DUTTA	School of Agro and Rural Technology
257	186154101	KAMAL NARAYAN BARUAH	School of Agro and Rural Technology
258	196154001	AKASAPU KUMUDHINI	School of Agro and Rural Technology
259	196154003	ANAMIKA GHOSE	School of Agro and Rural Technology
260	196154007	PRAKASH SINGH	School of Agro and Rural Technology
261	196154102	LEKHIKA PATHAK	School of Agro and Rural Technology
262	196154103	SAPUNII SEBASTIAN PV	School of Agro and Rural Technology
263	196154104	SILVIA SAIKIA	School of Agro and Rural Technology
264	206154105	BIMAL KUMAR CHETRI	School of Agro and Rural Technology
265	166155003	PARISMITA GOGOI	Centre for Linguistic Science and Technology

List of Students who have fulfilled the requirement for award of MTech and MS(R) Interdisciplinary

S.No.	S.No.	Programme	Academic Divison	Discipline	NAME
1	224161021	Master of Technology	Interdisciplinary	Data Science	RACHIBE LIEGISE
2	234161001	Master of Technology	Interdisciplinary	Data Science	AMAN KUMAR PRASAD GOND
3	234161002	Master of Technology	Interdisciplinary	Data Science	ANJALI JAISWAL
4	234161004	Master of Technology	Interdisciplinary	Data Science	DIGANTA DIASI
5	234161005	Master of Technology	Interdisciplinary	Data Science	MEHAR KHATOON
6	234161007	Master of Technology	Interdisciplinary	Data Science	PRAKHAR SHANKAR
7	234161010	Master of Technology	Interdisciplinary	Data Science	TAPAN MAHATA
8	234161011	Master of Technology	Interdisciplinary	Data Science	TARUN KUMAR
9	234161012	Master of Technology	Interdisciplinary	Data Science	TENZIN DAWA
10	234161013	Master of Technology	Interdisciplinary	Data Science	AASTHA KORI
11	234161015	Master of Technology	Interdisciplinary	Data Science	BHUSHAN PATIL
12	234161017	Master of Technology	Interdisciplinary	Data Science	MANIKANTHA DANDI
13	234161018	Master of Technology	Interdisciplinary	Data Science	NANDEESH H U
14	234161019	Master of Technology	Interdisciplinary	Data Science	PRAGATI MANGALSING PATIL
15	234161020	Master of Technology	Interdisciplinary	Data Science	PUSHPENDER KUMAR
16	234161022	Master of Technology	Interdisciplinary	Data Science	VAIBHAV MISHRA
17	234363002	Master of Science by Research	Interdisciplinary	E-Mobilty	GAURAV GILL

PROGRESS OF CONSTRUCTION WORKS

STATUS OF CONSTRUCTION PROJECTS (Completed)						
Sl. No.	**Project Title**	**Project Cost (Cr)**	**Date of Start of Project**	**Date of Completion**	**Physical Progress**	**Reason / Remarks**
1	Construction of Cycle parking in Disang Hostel at IITG campus	30.85 lakh	16.04.2024	15.10.2024	100 %	
2	Construction of R.C.C drain from security road behind R&D building to exit point near Research Park in IITG Campus	17.30 Lakh	30.05.2024	30.08.2024	100 %	
3	Construction of 02 nos. (36 nos. bed capacity) Security Barak for security personal near KV gate in IIT Guwahati Campus	28.05 Lakh	16.04.2024	15.10.2024	100 %	
4	Construction of paved pathway around the Auditorium building and rear side of Conference Centre in IITG campus	16.47 Lakh	05.07.2024	05.11.2024	100 %	
5	Construction of Car Washing point at the parking area between Medical & New Guest House in IITG campus	7.34 lakh	01.08.2024	30.10.2024	100 %	
6	Construction of car parking and cycle parking beside DX block of Mechanical Engineering department at IITG campus (Civil Works)	20.20 Lakh	13.08.2024	14.01.2025	100 %	

7	Construction of drain and development of Pathways connecting to cycle stands at Barak Hostel in IITG Campus	24.79 lakh	05.03.2025	05.06.2025	100 %	
8	Construction of guest carparking for new F-Type residential tower at IITG Campus	24.25 lakh	17.02.2025	16.06.2025	100 %	
STATUS OF ONGOING PROJECTS						
Sl. No.	**Project Title**	**Project Cost (Cr)**	**Date of Start of Project**	**Date of Completion**	**Physical Progress**	**Reason / Remarks**
1	Construction of Academic buildings for the Mehta Family School of Data Science & Artificial Intelligence and Jyoti & Bhupat Mehta School of Health Sciences & Technology (MFSDSAI and JBMSHST) at IIT Guwahati	86.80 Crore	04.02.2025	03.02.2028 (3 years)	3%	In progress
2	Construction of an additional/New Pharmacy House below the ramp at the IITG Medical Building in IITG campus	12.08 Lakh	01.04.2025	15.11.2025	100&	

INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI
GUWAHATI - 781039, ASSAM

BALANCE SHEET AS AT 31ST MARCH 2025

[Amount in ₹]

SOURCES OF FUNDS	Schedule	Current Year	Previous Year
CORPUS/CAPITAL FUND	1	12,91,10,37,274	12,42,90,34,224
DESIGNATED/ EARMARKED / ENDOWMENT FUNDS	2	2,84,77,03,879	2,44,01,36,939
CURRENT LIABILITIES & PROVISIONS	3	9,70,70,05,005	9,01,60,85,138
TOTAL		**25,46,57,46,158**	**23,88,52,56,302**

APPLICATION OF FUNDS	Schedule	Current Year	Previous Year
FIXED ASSETS	4		
Tangible Assets		16,27,20,30,406	16,22,25,80,259
Intangible Assets		10,96,22,564	17,19,86,886
Capital Works-In-Progress		63,43,44,256	32,31,25,922
INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS	5		
Long Term		1,57,66,26,542	1,09,72,74,092
Short Term		-	-
INVESTMENTS - OTHERS	6	1,09,18,60,854	1,25,12,26,310
CURRENT ASSETS	7	5,13,83,85,497	1,08,32,44,192
LOANS, ADVANCES & DEPOSITS	8	64,28,76,038	77,26,43,844
TOTAL		**25,46,57,46,158**	**20,92,20,81,504**

SIGNIFICANT ACCOUNTING POLICIES **23**

CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS **24**

Joint Registrar (F&A) **Registrar** **Director**

Guwahati; June 28, 2025

INDIAN INSTITUTE OF TECHNOLOGY
GUWAHATI GUWAHATI - 781039, ASSAM

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2025

[Amount in ₹]

Particulars	Schedule	Current Year	Previous Year
INCOME			
Academic Receipts	9	66,49,90,058	63,51,22,095
Grants / Subsidies	10	5,02,32,56,079	4,57,01,96,116
Income from investments	11	25,43,37,112	12,89,84,163
Interest earned	12	2,24,05,352	7,84,22,565
Other Income	13	13,82,85,497	13,55,27,608
Prior Period Income	14	-	14,14,799
TOTAL (A)		**6,10,32,74,098**	**5,54,96,67,346**
EXPENDITURE			
Staff Payments & Benefits (Establishment expenses)	15	3,01,10,15,069	2,94,02,13,914
Academic Expenses	16	1,09,02,06,716	1,06,13,74,406
Administrative and General Expenses	17	52,10,24,307	45,47,07,882
Transportation Expenses	18	2,37,44,955	1,90,63,374
Repairs & Maintenance	19	46,03,09,104	39,96,11,850
Finance costs	20	8,89,66,974	7,92,40,362
Depreciation	4	89,12,04,343	90,07,44,139
Other Expenses	21	-	-
Prior Period Expenses	22	20,38,77,721	18,31,21,179
TOTAL (B)		**6,29,03,49,188**	**6,03,80,77,106**
Balance being excess of Income over Expenditure (A-B)		**(18,70,75,090)**	**(48,84,09,760)**
Add : Transfer Corpus/Capital for equivalent amount of Depreciation on Assets Purchased from Captal Grant/ Projects/ transfer of ownersship/earmarked etc.		**89,12,04,343**	**90,07,44,139**
Transfer to / from Designated Fund			
Earmarked / Endowment Funds		(19,60,94,079)	(21,41,10,207)
Less: Excess of Capital Expenditure			
Less IRG utilisation towards repayment of HEFA loan / other expenditure		(40,67,46,872)	(38,79,94,700)
Balance Being Surplus / (Deficit) Carried to Capital Fund		**10,12,88,302**	**(18,97,70,528)**

Significant Accounting Policies 23
Contingent Liabilities and Notes to Accounts 24

Joint Registrar (F&A) Registrar Director

Guwahati; June 28, 2025

INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI GUWAHATI
- 781039, ASSAM

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2025

[Amount in ₹]

	RECEIPTS	Current Year	Previous Year		PAYMENTS	Current Year	Previous Year
I.	Opening Balance			I.	Expenses		
	a) Cash Balances	3,19,000	3,19,000		a) Establishment Expenses	2,55,75,21,371	2,31,35,38,085
	b) Bank Balance				b) Academic Expenses	92,30,05,257	91,97,67,535
	i. In Current accounts	1,08,29,25,192	97,34,18,376		c) Administrative Expenses	1,17,42,807	79,28,611
	ii. In Savings accounts	2,96,10,98,474	2,96,45,96,714		d) Transportation Expenses	13,28,358	9,94,503
	iii. In Deposit accounts	-	1,99,87,916		e) Repairs & Maintenance	92,350	2,25,581
II.	Grants Received				f) Prior period expenses	3,41,27,736	4,21,12,151
	a) From Government of India	6,13,42,08,948	5,42,01,96,118		g) Finance Cost	8,89,68,101	7,92,40,362
	b) From State Government	-	-	II.	Payments against Earmarked/ Endowment Funds	12,19,79,759	18,83,91,773
	c) From others	-	-	III.	Payments against Sponsored Projects/Schemes	78,63,04,548	60,11,31,700
				IV.	Payments against Sponsored Fellowships/Scholarships	16,60,47,121	18,13,87,486
				V.	Investments and Deposits made	-	-
III.	Academic Receipts	1,04,75,28,271	99,55,98,859		a) Out of Earmarked/Endowments funds	30,10,34,239	80,98,014
IV.	Receipts against Earmarked/ Endowment Funds	22,22,37,691	39,74,71,504		b) Out of own funds (Investments- Others}	53,13,92,331	66,88,29,194
V.	Receipts against Sponsored Projects/Schemes	1,81,72,08,041	1,52,23,25,088	VI.	Term Deposits with Scheduled Banks	12,82,63,000	-
VI.	Receipts against sponsored Fellowships and Scholarships	18,38,20,256	19,04,31,266	VII.	Expenditure on Fixed Assets and Capital Works - in- Progress		
VII.	Income on Investments from				a) Fixed Assets	4,92,69,344	13,89,81,350
	a) Earmarked/Endowment funds	14,07,15,146	2,68,47,413		b) Capital Works- in- Progress	-	-
	b) Other investments	20,49,95,626	2,20,39,776	VIII.	Other Payments including statutory payments	2,45,26,58,169	2,36,38,67,191
VIII.	Interest received on						4,98,85,612
	a) Bank Deposits			IX.	Refunds of Grants	22,32,01,496	2,53,56,75,203
	b) Loans and Advances	12,127	3,94,187	X.	Deposits and Advances	2,44,49,42,463	49,87,79,734
	c) Savings Bank Accounts	2,18,23,390	7,51,01,333	XI.	Other Payments	41,62,67,926	
IX.	Investments encashed	38,01,29,194	8,72,46,795	XII.	Closing balances		3,19,000
X.	Term Deposits with Scheduled Banks encashed	-	-		a) Cash in hand	3,35,000	-
XI.	Other income (including Prior Period Income)	55,65,171	1,33,18,277		b) Bank balances		
XII.	Deposits and Advances	76,24,76,838	84,39,66,180		In Current Accounts	1,08,38,42,802	1,08,29,25,192
XIII.	Miscellaneous Receipts including Statutory Receipts	1,04,23,95,062	1,01,02,84,294		In Savings Accounts	3,77,88,40,320	2,96,10,98,474
XIV	Any Other Receipts - Fixed Assets/ Direct-Indirect expenses	9,37,06,072	8,17,09,980		In Deposit Accounts		20,76,324
	TOTAL	**16,10,11,64,498**	**14,64,52,53,076**		**TOTAL**	**16,10,11,64,498**	**14,64,52,53,076**

Joint Registrar (F&A) **Registrar** **Director**

Guwahati; June 28, 2025

Indian Institute of Technology Guwahati
Guwahati - 781039
Assam, India

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