

ANNUAL REPORT
(PERIOD: 1 APRIL 2020 – 31 MARCH 2021)
Department: 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
<u>Laboratories for B. Tech and M. Sc program</u>				
01	Chemistry Laboratory (B. Tech, 1 st 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
<u>Research Laboratories:</u>				
05	CHL –101, CHL – 102, CHL –103, CHL – 104, CHL –105, CHL –106, CHL – 201, CHL-202, CHL-203, CHL-204, CHL – 205, CHL – 206, CHL-3201, CHL-3202, CHL-3203, CHL-3204, CHL-3207, CHL-3209, CHEL-004, CHEL-005, CHEL-006, CHEL –101, CHEL –102, CHEL – 103, CHEL – 104, CHEL – 105, CHEL – 106, CHEL –107, CHEL –108, CHEL – 109, CHEL – 201, CHEL –202, CHEL –203, CHEL – 204, CHEL – 205, CHEL – 206, CHEL –207, CHEL – 208, CHEL – 209, CHEL –301, CHEL –302, CHEL –303, CHEL – 304, CHEL – 305, CHEL – 306, CHEL –307, CHEL –308, CHEL – 309.	48	80 (average)	White board, computers, internet, phone, 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 (Millipore) water Lab	01	50	AC

MAJOR EQUIPMENT AND FACILITIES ACQUIRED (1 APRIL 2020 – 31 MARCH 2021):

No major equipment procured costing > 5.0 Lakh

MAJOR AREAS OF RESEARCH AND DEVELOPMENT:

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

Catalysis, Supramolecular Chemistry, Nanoscale Science and Technology, Synthesis, structure and reactivity of Inorganics, Newer reagents, Protocols and Newer methodologies, Synthesis of natural products and Carbohydrate Chemistry, Bio-organic Chemistry, Bio-inorganic Chemistry and Co-ordination Chemistry & Organometallics, Chiral recognition using metal complex based host, Metal removal from wastewater using polymer based chelators, Polymer synthesis, Organic Photochemistry, Molecular dynamics, Quantum Molecular dynamics, Physical Chemistry – Spectroscopic and Theoretical investigations on Novel Materials, peptide chemistry, Development of new theoretical approaches to: Laser Assisted Control of Chemical Reactions, and, Resonances in Electron – Molecule Scattering, Biomimetic Chemistry and Chemical Biology, Computational Biophysics and Chemistry, Oxidation Catalysis, Molecular Magnetism, Synthesis of Single-Molecule Magnets (SMMs), MRI Contrast agents, Water Oxidation Chemistry, Experimental & Theoretical Physical Chemistry, Self-organization and Nonlinear dynamics, Liquid crystals, Functional Materials, Molecular Electronics, Self Assembly, Supramolecular dynamic aggregates, peptides, lipids, Time Resolved Absorption and Fluorescence Spectroscopy, SHG, MUPPETS, Synthetic organic chemistry, Natural product synthesis with the emphasis of new synthetic methodology; development of new reactions, asymmetric organocatalysis and transition metal catalysis with new catalyst design; mechanistic study, solar fuel from water, Gas/Vapor/Liquid Adsorption and Catalytic Applications of Metal-Organic Frameworks (MOFs), Peptidomimetics: Synthesis, Conformation and Biological activity, Nanofluidics, Organometallic Chemistry and Catalysis, Bio-inspired Polymer Materials, Drug Delivery, Open Microfluidics, Chemical Sensor, Organofluorine Chemistry etc.

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT (1 APRIL 2020 – 31 MARCH 2021):

Major Initiatives in R&D:

Development of novel methods for the construction of diverse organic molecules those are of important in biological and medicinal sciences, Development of novel strategies for C-H activation for the regioselective carbon-carbon and carbon-heteroatom bonds formations, which are important in academia and chemical industries from both environmental and economic standpoint, Development of novel materials for water harvesting, Design of catalysts to transfer waste to chemicals, Supramolecular chemistry of polypeptides which are important in drug delivery and nanotechnology, Design and development of novel approaches for the development drugs for misfolding diseases, such as Alzheimer's disease (AD) and Parkinson's disease etc. Development of atom economic routes for the construction of novel molecules which are important in pharmaceuticals, materials chemistry such as construction of devices etc.,

Breakthrough Innovations:

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

- Development novel materials that can efficiently harvest water from humid air.
- Development of efficient catalysts for transforming industrial waste into valuable chemicals etc.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: NATIONAL/ INTERNATIONAL (1 APRIL 2020 – 31 MARCH 2021)

Sl. No.	Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
1	Dr. Subhendu Sekhar Bag	2 nd Webinar on "E-Meeting On Advanced Catalysis (Adcat-2021)", Organized by Coalesce Research Group	Virtual	11-12/03/2021	International
2		National webinar on National Educational Policy 2020: Revisiting Ancient Indian Knowledge System for Atmanirbhar Bharat. Organized by IGNOU	Virtual	28/02/2021	National
3		National Webinar on Academic Contribution of Shri Shri Anandamurti ji. Organized by Rajasthan University	Virtual	19/11/2020	National
4	Dr. Debapratim Das	Recent Advances in Organic and Biomolecular Chemistry 2021 Organized by NIT Sikkim	Virtual	24/03/2021	International
5		Meet IIT Roorkee Chemistry Alumni Organized by IIT Roorkee	Virtual	13/08/2020	National
6		ChemSci 2020, organized by IISER Kolkata	Virtual	07-10/12/2020	International
7	Dr. Manabendra Sarma	International e-Poster Conference on Current Outlook in Material Science and Engineering 2020 (COMSE – 2k20)	Online	15/05/2020 – 16/05/2020	International
8		ACS Science Talk: Virtual Lecture Series	Online	24/07/2020	International
9		New Horizons in Density Functional Theory Faraday Discussion	Online (Royal Society of Chemistry, UK)	02/09/2020 – 04/09/2020	International
10	Dr. Kingsuk Mahata	Molecules to Materials	NIT Surat, Virtual	17/12/2020 to 18/12/2020	International
11	Dr. Uttam Manna	ACS Science Talk	Virtual lecture	10/07/2020	International
12		International Conference on Recent Trends in Chemical Sciences (RTCS-2020)	Virtual lecture	27/12/2020	International
13	Dr. Akshai Kumar A S	"Tools and Techniques to Perform Molecular Modelling and Computer-Aided Drug Design", organized by NIPER Guwahati, 11th-17th January, 2021	Virtual	11-17/01/2021	International
14		International Webinar "Recent Trends in Chemical Science: Development and Application" organized by Department of Chemistry, Poornaprajna College and Postgraduate Centre, Udupi,	Virtual	09/09/2020	International
15		EURIDITION-2020 organized by Department of Chemistry and IQAC, Payyanur college, Payyanur, Kerala under the auspices of The	Virtual	06/05/2020	National

		Kerala State Higher Education Council			
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INVITED LECTURES OF FACULTY: IN INDIA, ABROAD (1 APRIL 2020 – 31 MARCH 2021)

Sl. No.	Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
01	Prof. A. T. Khan	Chemistry plays a pivotal role for Mankind and Exploration of Amines Towards Heterocycles synthesis	Nowgong College	Nowgong, Assam	20/08/2020
02	Dr. Subhendu Sekhar bag	A Photocatalytic Route to Click Reaction: Synthesis of 1,2,3-Triazoles of Biological Importance	2 nd Webinar on "E-Meeting On Advanced Catalysis (Adcat-2021)", Organized by Coalesce Research Group	Virtual	11-12/03/2021
03		NEP 2020 and Role of Technology for Equity and Access	National webinar on National Educational Policy 2020: Revisiting Ancient Indian Knowledge System for Atmanirbhar Bharat. Organised by IGNOU	Virtual	28/02/2021
04		Microvitum –In Quest Of An Unified Theory Of Natural Science	National Webinar on Academic Contribution of Shri ShriAnandamurtiji. Organized by Rajasthan University	Virtual	19/11/2020
05	Prof. Achalkumar Ammathnadu Sudhakar	Columnar self-assembly and applications	NIT Rourkela	Webinar on Frontiers in Organic Electronics	29/06/2020-03/07/2020
06	Dr. Debapratim Das	Supramolecular Aggregates of Short Peptides for Various Applications	Recent Advances in Organic and Biomolecular Chemistry 2021 Organized by NIT Sikkim	Virtual	24/03/2021
07		Supramolecular Aggregates: The Surprise Continues	Meet IIT Roorkee Chemistry Alumni Organized by IIT Roorkee	Virtual	13/08/2020
08		Unusual assemblies of KC peptides: New avenue to create functional biomaterials	ChemSci 2020, organized by IISER Kolkata	Virtual	07-10/12/2020
09		Unexpected Supramolecular Aggregates: The Case of KC Peptides	The Saturday COVID-19 Lecture series at University of Miami, USA	Virtual	29/07/2020
10	Prof Subhas Chandra Pan	Metal Free Synthesis of Cyclic Molecules	Tezpur University	Virtual	07/01/2021
11		Significance of Chirality and Chiral Catalysts	NIT Surathkal	Virtual	18/02/2021
12		Metal Free Synthesis of Cyclic Molecules	NIT Durgapur	Virtual	03/03/2021
13	Dr. Manabendra Sarma	A National Webinar on Current Perspectives in Chemical Sciences	Department of Chemistry, Bhatler	Online	21/07/2020

			College, Dantan and Indian Chemical Society, West Bengal, India		
14		A National Webinar on Theoretical Chemistry: Quo Vadis?	Department of Chemistry and IQAC, Goalpara College, Goalpara, Assam, India	Online	16/08/2020
15		Science Academies Sponsored Refresher Course on Theoretical and Computational Chemistry (Two Lectures)	Department of Chemistry, PSGR Krishnammal College for Women, Coimbatore, Tamil Nadu, India	Online	28/01/2021
16		Science Academies Sponsored Refresher Course on Theoretical and Computational Chemistry (Two Lectures)	Department of Chemistry, PSGR Krishnammal College for Women, Coimbatore, Tamil Nadu, India	Online	30/01/2021
17		Science Academies Sponsored Refresher Course on Theoretical and Computational Chemistry (Two Lectures)	Department of Chemistry, PSGR Krishnammal College for Women, Coimbatore, Tamil Nadu, India	Online	01/02/2021
18		Guest Lecture Series on Chemistry Education (Virtual)	Department of Chemical Sciences, Tezpur University, Assam, India	Online	10/02/2021
19		TEQIP – III Sponsored One-day Seminar on Theoretical and Computational Chemistry (Offline/Online)	Department of Chemistry, NIT Meghalaya, Shillong, India	NIT Meghalaya, Shillong	13/03/2021
20	Dr. Dipankar Srimani	Applicability of Acceptorless Dehydrogenation and Borrowing Hydrogen Catalysis in Chemical Synthesis	Assam Don Bosco University	Virtual	31 st October 2020
21		Application of De(hydrogenative) Transformations in Chemical Synthesis	IIT Bhilai	Virtual	27 th November 2020
22		Application of De(hydrogenative) Reactions in Sustainable Catalysis	Amity Institute of Applied Sciences, Amity University, Kolkata	Virtual	26 th Nov 2020
23	Dr. Uttam Manna	Webinar Series, Dept of Chemistry	IIT Delhi	Delhi	13/08/2020
24		TEQIP-III Sponsored Short-term Course, Department of Applied Sciences	Punjab Engineering College	Chandigarh	20/08/2020
25		TEQIP-III Sponsored Short-term Course, Department of Chemistry	National Institute of Technology, Manipur	Manipur	18/10/2020
26		Complex Fluids-2020	IIT Bombay and the Indian Society of Rheology (ISR)	IIT Bombay	12/12/2020
27		SERB Webinar Series On COVID-19 Emerging Research	SERB, DST	Delhi	07/01/2021
28		One Day Virtual Outreach Programme	Indian Institute of Technology Guwahati In Association with Indian International Science Festival 2020	IITG	18/12/2020
29	Dr. Krishna P.	Chemistry and Biology of	NIT Manipur	Manipur	29/10/2020

	Bhabak	Organochalcogen Compounds			
30	Dr. Animesh Das	Transition metal-free regioselective C-H bond cyanation and chemoselective reduction of fused azines	Amrita Vishwa Vidyapeetham, Kerala	Kerala	02/06/2020
31	Dr. Akshai Kumar A S	Pincer-Metal Complexes in Catalytic Conversions: Synthesis of High-Value Fuels and Specialty Chemicals	Webinar "Know Your Members" organized by INYAS, New Delhi	Virtual	20/03/2021
32		The Fascinating Chemistry of Organometallic Complexes and Their Versatile Applications	International Webinar "Recent Trends in Chemical Science: Development and Application" organized by Department of Chemistry, Poornaprajna College and Postgraduate Centre, Udupi,	Virtual	09/09/2020
33		The Fascinating Chemistry of Organometallic Complexes and Their Versatile Applications	Webinar Series organized by Department of Chemistry St. Aloysius College, Mangalore	Virtual	08/07/2020
34		The Fascinating Chemistry of Metal Carbonyls and their Versatile Applications	EURIDITION-2020 organized by Department of Chemistry and IQAC, Payyanur college, Payyanur, Kerala under the auspices of The Kerala State Higher Education Council	Virtual	06/05/2020

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES (1 APRIL 2020 – 31 MARCH 2021)

Sl. No.	Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED (1 APRIL 2020 – 31 MARCH 2021)

Sl. No.	Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
	Dr. Akshai Kumar (Member of the Organizing Committee)	"Tools and Techniques to Perform Molecular Modelling and Computer-Aided Drug Design", organized by NIPER	NIPER	11-17/01/2021	International	>300

		Guwahati, 11th-17 th January, 2021				
	Dr. Uttam Manna, Convener	6th National Workshop on NEMS/MEMS and Theranostic Devices	Ministry of Electronics and Information Technology (MeitY), Govt. of India	Dec 1 to Dec 3, 2020	International	>200

A brief report on the major NATIONAL and INTERNATIONAL events with photographs may also be given separately in addition to the format given above

PATENTS (1 APRIL 2020 – 31 MARCH 2021)

No. of Patents Applied: 04

No. of Patents Granted: 01

Sl. No.	Name of Faculty and co researcher	Name	Date Applied/Granted	Application No.	Remarks
01	Prof. Bhubaneswar Mandal and Dr. Ashim Paul	BETA SHEET BREAKER PEPTIDES FOR DRUG DESIGN AGAINST DIABETES TYPE II	24/03/21	Patent No.- 362950 Application No. – 201631018104	GRANTED
02	Dr. Uttam Manna and Avijit Das, Dr. Sachin Kumar	A METHOD OF PREPARING DISPOSABLE WATER REPELLENT MASK AND A PRODUCT THEREOF	03/04/2020	202031014922	Applied
03	Dr. Uttam Manna and Velayudhan Pillai Nandakumar, Karthick Ramalingam, Manjunatha Megur Ganesh BHAT, Pramod Kumar HEGDE, Avijit Das, Arpita Shome, Manideepa Dhar	A COATING COMPOSITION AND A PROCESS OF PREPARATION THEREOF	16/05/2020	202041020725	Applied
04	Dr. Akshai Kumar A S	A PROCESS FOR UPGRADATION OF ETHANOL OR ALKYLATION OF ALCOHOLS	27/05/2020	202031022124	Applied
05	Dr. Akshai Kumar A S	A PROCESS FOR PRODUCTION OF LACTIC ACID FROM GLYCEROL	23/05/2020	202031021709	Applied

AWARDS AND HONOURS (1 APRIL 2020 – 31 MARCH 2021)

Sl. No.	Name of Faculty	Name of Award	Name of Institute/ Organization/ Foundation bestowing the award	Reason for award	Form of Award (Citation/ Medal/ Cash etc)
1	Dr. Subhendu	Chartered Chemist	Royal Society of	Academic and Research	Citation & Certificate

	Sekhar Bag	(CChem)	Chemistry, London, UK	Excellency in Science	
2		Global Faculty Award 2020 (GFA20IN0767)	AKSEducation Awards AKS Worldwide Pvt. Ltd.	Extraordinary Teaching Acumens, Unstoppable education spirit, Remarkable professional skills and Contribution in the field of Education.	Citation & Certificate
3		Dr. A. P. J. Abdul Kalam Lifetime International Award	IRDP Group of Journal	Outstanding Contribution in Research and Teaching	Citation & Certificate
4		Quarterly Franklin Membership (ID#RA87720)	Editorial Board of London Journals Press	Outstanding Contribution in Research	Citation
5	Prof. Bhubaneswar Mandal	Life Fellow	Chemical Research Society of India	Contributions to Bio-active peptide design	Certificate
6	Prof Subhas Chandra Pan	Editorial Advisory Board	Journal of Heterocyclic Chemistry, Wiley Publishers, Germany	Work on heterocyclic chemistry	Citation
7	Dr. Manabendra Sarma	Fellow of the Royal Society of Chemistry (FRSC)	Royal Society of Chemistry (UK)	Recognition of accomplishments in Chemistry and wider scientific communities	Citation (Certificate)
8	Dr. Uttam Manna	Invited Fellow of the Royal Society of Chemistry (FRSC)	Royal Society of Chemistry	significant contributions to the study of Bio-inspired Polymer Materials, Drug Delivery, Open Microfluidics and Chemical Sensors	Certificate
9		Humboldt Research Fellowship	The Alexander von Humboldt Foundation	Contributions to the study of Bio-inspired Polymer Materials	Fellowship
10		Editorial Advisory Board Member	Materials Horizons, RSC	contributions to the study of Bio-inspired Polymer Materials	Citation
11		Emerging Investigator	Nanoscale	contributions to the study of Bio-inspired Polymer Materials	Citation
12		Life Fellow	Indian Chemical Society	contributions to the study of Bio-inspired Polymer Materials	Certificate
13	Dr. Akshai Kumar A S	Member of Indian National Young Academy of Sciences (INYAS), Indian National Science Academy 2021-2026	Indian National Young Academy of Sciences (INYAS), Indian National Science Academy	In recognition of Contributions to Research and Outreach Activities	Citation
14		Found mention in "The list of Indian chemists making ACS great"	ACS	For highest citations in Chemical Reviews	Citation

STUDENTS' ACHIEVEMENTS (1 APRIL 2020 – 31 MARCH 2021)

Sl. No.	Name of Student	Name of Award	Name of Institute/ Organization/ Foundation bestowing the award	Reason for award	Form of Award (Citation/ Medal/ Cash etc)
01	Ms. Arpita Shome Supervisor: Dr. U. Manna	Prof. G. Gopalarao Centenary Young Scientist Award	Indian Chemical Society	Oral presentation	certificate
02	Ms. Angana Borbora Supervisor: Dr. U. Manna	Research Excellence Award in the physical chemistry	Indian Chemical Society	Poster presentation	certificate
03	Ms. Arpita Shome Supervisor: Dr. U. Manna	Sir C V Raman Award of Excellence	Indian Chemical Society	Oral presentation	certificate
04	Mr. Dipanjan Bhattacharyya Supervisor: Dr. A. Das	1 st Position	International Conference organized by Indian Chemical Society from 26 – 29th December 2020 "Recent Trends in Chemical Sciences-2020"	Poster presentation	certificate
05	Mr. Bikash Kumar Sarmah Supervisor: Dr. A. Das	1 st Position	International Conference organized by Indian Chemical Society from 26 – 29th December 2020 "Recent Trends in Chemical Sciences-2020"	oral presentation	certificate
06	Ms. Eileen Yasmin Supervisor: Dr. Akshai Kumar A. S.	Consolation Poster Award for "Tools and Techniques to Perform Molecular Modelling and Computer-Aided Drug Design", organized by NIPER Guwahati, 11th-17 th January, 2021	NIPER Guwahati	Poster Presentation	Certificate

SPECIAL MENTION (1 APRIL 2020 – 31 MARCH 2021)

1. Prof. A. T. Khan delivered the Professor P K Bose Memorial Endowment Award Lecture entitled "Exploration of Nitro-alkene in Organic Synthesis" in the International Seminar on Recent Advances in Chemistry & Material Sciences -2020.
2. Dr. Manabendra Sarma received Appreciation from ACS Omega and International Journal of Chemical Kinetics for reviewing papers.
3. The research work of Dr. U. Manna related to water harvesting and antiviral coating have been highlighted at various national platforms—including in The Shilong Times, Deccan Herald, The Hindu, Edex Live, Northeast Now, The Lallontop, Financial Express, Skilloutlook, Guwahatiplus, Delhi post, The Guwahati Times, Northeast Today, The Telegraph, India Today, The Economic Times, Timesnownews, Zee News, Economic Times, The Sentinel, NDTV Education, EastMojo, The Assam Tribune, The Hindustan Times, Outlook India, The Tribune, BWEducation, The Times of India, Maharashtra Times, Namasthe Telangana, Dainik Jagran, Assam Post, Newsfile, The Print, YourStory on December 8, 2020.

4. The research work of Dr. Akshai Kumar A S and group related to “Development of efficient catalysts for transforming industrial waste into valuable chemicals” appeared in the following media.

<https://www.outlookindia.com/newscroll/iit-guwahati-develops-efficient-catalysts-for-transforming-industrial-waste-into-valuable-chemicals/1976649>
<https://economictimes.indiatimes.com/news/politics-and-nation/iit-guwahati-develops-efficient-catalysts-for-transforming-industrial-waste-into-valuable-chemicals/articleshow/79244863.cms>
<http://bveducation.businessworld.in/article/IIT-Guwahati-Scientists-Make-Breakthrough-In-Developing-Efficient-Catalytic-Systems-For-Biofuel-And-Lactic-Acid-Production/16-11-2020-343123/>
<https://www.edexlive.com/campus/2020/nov/16/iit-guwahatiresearchers-developmethod-to-transform-industrial-wasteinto-valuable-chemicals-15885.html>
<https://news.careers360.com/iit-guwahati-develops-efficient-catalysts-for-transforming-industrial-waste-into-valuable-chemicals>
<https://nenow.in/north-east-news/assam/iit-guwahati-scientists-develop-efficient-catalytic-systems-for-biofuel-lactic-acid-production.html>

 **Dr. Ramesh Pokhriyal Nihsar** @DrRPNishank

.@IITGuwahati has formulated efficient 'pincer' catalytic systems that can transform industrial wastes to useful chemicals. This research will have global impact on production of biofuels & help the environment. Congrats to #IITGuwahati for the innovation.
bit.ly/IIT-G-Chemicals



IIT Guwahati researchers have developed a method to transform industrial waste into valuable chemicals



 **Footprint Global** @FGCTweets · Nov 23, 2020

#IITGuwahati Scientists make Breakthrough in Developing Efficient Catalytic Systems for Biofuel & Lactic Acid Production - @akshaiK55372786 explains #GyanVigyan @rajyasabhatv



ज्ञान विज्ञान | Gyan Vigyan | 21.11.2020
 Rajya Sabha TV | RSTV
youtube.com

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 **Footprint Global** @FGCTweets · Nov 23, 2020

#IITGuwahati Scientists make Breakthrough in Developing Efficient Catalytic Systems for Biofuel & Lactic Acid Production - @akshaiK55372786 explains #ScienceMonitor @rajyasabhatv



Science Monitor - 21.11.2020
 Rajya Sabha TV | RSTV
youtube.com

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5. Dr. Akshai Kumar A.S. is selected as New Members of INYAS (photo attached).

INYAS New Members (2021-25)

 Rajib Deb ICAR-NRCP, Guwahati	 Pankaj Barah Tezpur University, Sonitpur	 Veda Krishnan ICAR-IARI, New Delhi	 Kutubuddin Molla ICAR-NRRI, Cuttack	 Ramendra S Dey INST, Mohali	 Akshai Kumar A S IIT Guwahati	 Mohd. Haider IIT Delhi	 Sonu Gandhi NIAB, Hyderabad
 Ritu Gupta IIT Jodhpur	 Nishima, PU, Chandigarh	 Nagarajan Subbiah NIT Warangal	 Aditya Sadhanala IISc, Bengaluru	 Praveen Kumar IACS, Kolkata	 Arvind Singh PRL Ahmedabad	 Nishant Chakravorty IIT Kharagpur	 Neha Sardana IIT Ropar
 Sanjay Singh IIT BHU, Varanasi	 Manoj Gupta CSIR-AMPRI, Bhopal	 Akhilesh Mishra DST, New Delhi	 Atul Dixit IIT Gandhinagar	 Priyanka Bajaj CSIR-IMTech, Chandigarh	 Dwijendra Pandey IIT Roorkee	 Kanti Pandey CSIR-CSMCR, Bhavnagar	 Nivethida T. NBRC, Manesar

6. **Prof. Subhendu Sekhar Bag** has received the prestigious award CChem designation from the Royal Society of Chemistry for his outstanding academic, professional, research contributions in the field of Chemical Sciences and Chemical Biology. Honorable Minister of Education Dr. Ramesh Pokhriyal Nishank congratulated Prof. Bag for this great achievement. The Ministry of Education also congratulated Prof. Bag for this outstanding achievement.

Ministry of Education
Government of India

Royal Society of Chemistry has honoured IIT Guwahati professor

Dr. Ramesh Pokhriyal Nishank (@DRPNishank) · Feb 5, 2021 · Twitter for Android

.@IITGuwahati professor Subhendu Sekhar Bag has been honoured with the prestigious Chartered Chemist designation by the Royal Society of Chemistry in London.

49 Retweets 3 Quote Tweets 331 Likes

Dr. Ramesh Pokhriyal Nishank · Feb 5

Replying to @DRPNishank
The Award recognises his commendable & outstanding contributions in the field of "Expansion of the Genetic Alphabet/Genetic Code" and "Just-Mix-&-Read Strategy" for SNPs Genotvoind towards personalised

IIT Guwahati Retweeted

Dr. Ramesh Pokhriyal Nishank (@DRPNishank) · Feb 5
Congratulations to Prof. Bag. Wishing you good luck for the future.



Royal Society of Chemistry honours IIT Guwahati professor
Bag is a professor of the department of chemistry at IIT Guwahati.
enow.in

Dr. A. P. J. Abdul Kalam Life-Time Achievement International Award		
Dr. P. DEIVENDRAN Chennai, Tamil Nadu, India	Dr. M. SYED SHAHUL HAMEED Sur, The Sultanate of Oman	Dr. RAJESH VISHNU YEOLE Raigad, Maharashtra, India
Prof. Dr. SUBHENDU SEKHAR BAG North Guwahati, Assam, India	Dr. RAJIYA SULTAN Shimla, India	Dr. SUESH KUMAR PANDEY Kings Road, Fiji Island

FACULTY MEMBERS:

Sl. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest
01	Achalkumar A.S.	Ph.D. (CSMR, Bangalore)	Professor	Liquid crystals, Functional Materials, Molecular Electronics, Self Assembly, Green Chemistry
02	Akshai Kumar A. S.	Ph.D. (IISc Bangalore)	Assistant Professor	Organometallic Chemistry, Inorganic Chemistry, Organofluorine Chemistry, Catalysis (Homogeneous and Heterogeneous), C-H and C-F activation
03	Bag Subhendu	Ph.D. (IIT Kharagpur)	Professor	Bioorganic Chemistry and Chemistry of

	Sekhar			Unnatural Nucleic Acid and Peptides
04	Baruah, Jubaraj B.	Ph.D. (IISc Bangalore)	Professor	Homogeneous Catalysis, Supramolecular chemistry and material design
05	Bhabak, Krishna Pada	Ph.D. (IISc Bangalore)	Assistant Professor	Organic and Bio-organic Chemistry
06	Biswas, Shyam Prosad	Ph.D. (Ulm University, Germany)	Associate Professor	Gas/Vapor/Liquid Adsorption and Catalytic Applications of Metal-Organic Frameworks
07	Chattopadhyay, Arun	Ph.D. (Columbia University)	Professor	Nanoscale Science and Technology
08	Chatterjee Sunanda	Ph.D. (IISc Bangalore)	Assistant Professor	Peptide Chemistry, Supramolecular Chemistry, Antimicrobial peptide research, Peptidomimetic chemistry
09	Das, Animesh	Ph.D. (University of Goettingen, Germany)	Assistant Professor	Organometallic chemistry and catalysis
10	Das, Debapratim	Ph.D. (IACS, Kolkata)	Professor	Supramolecular dynamic aggregates, peptides, lipids
11	Das, Gopal	Ph.D. (IIT Kanpur)	Professor	Supramolecular, Bioorganic chemistry and Biomineralization
12	Dutta, Sumana	Ph.D. (IACS, Kolkata)	Associate Professor	Experimental & Theoretical Physical Chemistry / Self-organization and Nonlinear dynamics
13	Gupta, Ashish K.	Ph.D. (Univ. of California, Los Angeles)	Professor	Quantum Molecular Dynamics
14	Iyer, Parasmeswar K.	Ph.D. (CSMCRI, Bhavnagar)	Professor	Polymer synthesis, Organic / Organometallic Chemistry & Device fabrication, Sensors
15	Jana, Chandan K.	Ph.D. (WWU Muenster, Germany)	Professor	Total Synthesis/ Natural Product Based Drug Discovery/ Synthetic Methodology/ Development of New Reaction
16	Kancharla, Pavan K.	Ph.D. (IIT Kanpur)	Assistant Professor	Organic Chemistry, Carbohydrate Chemistry, Development of Synthetic Methodology, Organocatalysis.
17	Khan, Abu Taleb	Ph.D. (Kalyani University, W.B)	Professor	Synthesis of Natural Products, Heterocycles and Carbohydrate Chemistry, Newer Methodologies
18	Krishnamoorthy, G.	Ph.D. (IIT Kanpur)	Professor	Organic Photochemistry & Spectroscopy
19	Kundu, Lal Mohan	Ph.D. (LMU Munich, Germany)	Associate Professor	Nucleic Acid / Peptide Chemistry, DNA / RNA Damage and Repair, DNA Hybrid Materials
20	Mahata Kingsuk	Ph.D (University of Siegen, Germany)	Associate Professor	Solar Fuel from Water, Supramolecular Catalysis, Theranostic Nano-Medicine
21	Manivannan, V.	Ph.D. (IACS, Calcutta)	Professor	Coordination Chemistry
22	Mandal, Bhubaneswar	Ph.D. (EPFL, Lausanne, Switzerland)	Professor	Peptide Chemistry and Amyloid Research
23	Manna, Debasis	Ph.D. (University of Illinois at Chicago)	Professor	Lipid-Protein Interaction, Lipid Synthesis
24	Manna, Uttam	Ph.D. (IISc, Bangalore)	Associate Professor	Bio-Inspired Polymeric Materials.
25	Mondal, Biplab	Ph.D. (IIT Bombay)	Professor	Coordination and Bioinorganic Chemistry
26	Mukherjee, Chandan	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	Pan, Subhas Chandra	Ph.D. (Max-Planck-Institut fuer Kohlenforschung, 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	Panda, Aditya N.	Ph.D. (IIT Kanpur)	Professor	Dynamics of bimolecular scattering processes
29	Patel, Bhisma K.	Ph. D. (IIT Kanpur)	Professor	Bio-Organic Chemistry and Newer Methodologies
30	Paul, Anumita	Ph.D. (Columbia University)	Professor	Surface Science, Catalysis, Thin Films
31	Paul, Sandip	Ph.D. (IIT Kanpur)	Professor	Computational Biophysics and Chemistry
32	Punniyamurthy, T.	Ph.D. (IIT Kanpur)	Professor	Synthetic Organic Chemistry
33	Qureshi, Mohd	Ph.D. (IIT Kanpur)	Professor	Materials Chemistry
34	Ray, Manabendra	Ph.D. (IIT Kanpur)	Professor	Bioinorganic and Coordination chemistry
35	Raidongia, Kalyan	Ph.D. (JNCASR)	Associate Professor	Physical Chemistry
36	Sahu, Kalyanasis	Ph.D. (IACS, Kolkata)	Associate Professor	Time Resolved Absorption and Fluorescence Spectroscopy, SHG, MUPPETS
37	Saikia, Anil Kr.	Ph.D. (RRL Jorhat)	Professor	New Synthetic Methodology & Natural Product Synthesis
38	Sastri, Chivukula V	Ph.D. (University of Hyderabad)	Professor	Biomimetic Chemistry and Chemical Biology
39	Sarma, Manabendra	Ph.D. (IIT Bombay)	Associate Professor	Development of new theoretical approaches to Laser Assisted Control of Chemical Reactions, and Resonances in Electron – Molecule Scattering Reactions
40	Srimani, Dipankar	Ph.D (IACS, Jadavpur)	Associate Professor	Organic, Organonometallic Chemistry