

Volume No 3

Year 2023

CHEMINEWS



ICFAI UNIVERSITY TRIPURA

Kamalghat, Mohanpur

West Tripura – 799210



MESSAGE

I am glad to note that the Department of Chemistry is coming up with the second newsletter “CHEMINEWS” volume No 3. The first newsletter of was a grand success and very much appreciated. Chemistry is a subject that has very wide interdisciplinary applications and is of common interest for general people. Ground breaking discoveries in chemistry has direct applications in daily common life and thus it is deeply rooted in the community. In the recent years of COVID-19 outbreak innovations and research did not take a halt but continued to contribute to the society. The education system was also able to adapt itself to online modes whenever necessary during the difficult times. I appreciate the joint efforts of the faculty members, staffs, students and parents alike without whose contribution this would not have been possible so successfully. During these difficult times the Department of Chemistry withheld its quality as can be reflected from the publications, online webinar and seminar conductions, managing online projects for students etc. The students also participated in many extracurricular activities which are highlighted specially to inspire others in such a difficult time during COVID-19 outbreak. In this regard, the newsletter carries a great responsibility to let everyone know its great efforts and achievements so as to inspire the community. This newsletter adds a great value to the department, University as well as to the overall community. I congratulate the Head of the Department and all the faculty members and students for such a great endeavor and wish them success.

Prof. (Dr.) V. N. Rajasekharan Pillai

Chancellor

ICFAI University Tripura



MESSAGE

It gives me great pleasure to know that the Department of Chemistry (ISS, FST), ICFAI University Tripura is ready to publish the second volume of their newsletter, CHEMINEWS volume 3. Regular publication of this newsletter serves as the ground for appreciation of great achievements by the Department as well as ample encouragements for the students and faculties alike. Online seminars on various advanced topics are being regularly conducted by the Department of Chemistry and are highlighted in the events section of this newsletter. I am happy to note that the Department of Chemistry has successfully conducted online international seminar “ICRTCM 2021”. The faculties were able to publish quality works in international journals and were able to keep up the good research work even during the pandemic situation. The students were able to attain great height of achievements and all of these needed to be highlighted in this newsletter which I am sure the editorial members have taken good care at. I am delighted to note that the Department of Chemistry has achieved so much in such a small time since its establishment in 2018. I convey my heartiest greetings to every member of the Department of Chemistry for all these great achievements and wish them the best for their noble endeavor towards great achievements in future as a family of the ICFAI University Tripura.

Prof. (Dr.) Biplab Halder

Vice Chancellor

ICFAI University Tripura



MESSAGE

It is great to learn that the Department of Chemistry is bringing forward its third volume of CHEMINEWS. It covers the great feats achieved in the span of one year by the members of the family of the Department of Chemistry. The hard work and enthusiasm of each and every member of this department helped to achieve great accomplishment worth recognition. In the disturbing time of the lockdown due to COVID-19 pandemic it was an astonishing all-round effort put together by every member of the department to carry forward academic excellence which are mentioned in this newsletter. I am sure that this newsletter will enlighten the students inspiring them to achieve even higher goals in all aspects of life. I convey my heartiest congratulations to all the members of the Department of Chemistry.

Prof. (Dr.) A. Ranganath

Registrar

ICFAI University Tripura



MESSAGE

I appreciate the efforts of the members of the Department of Chemistry to come up with the third volume of CHEMINEWS. The achievements of the students and the faculty members are put altogether in this newsletter which contains the year-around achievements worth mentioning in the department. Webinars, technical talks conducted on excellent advanced topics, extracurricular activities performed by the students, academic publications by the faculty members are all put together in this newsletter. The department leads innovative curriculum training the students to stand distinctly for their future careers. The department also successfully conducted campus-drive for the final year M.Sc. Chemistry Students setting an example in the science school. I believe that more industries and companies will be coming for recruitment in the next year. In this regard I am happy to note that the research facility for the Ph.D. students are also being upgraded in a constant effort as new scientific equipment are now being purchased by the ICF AI University for the Chemistry Department. The long list of scientific publications in international journals by the faculty members speaks for itself and I wish the Department of Chemistry to achieve great feats of accomplishment in coming years as an all-round performer in the ICF AI family.

Prof. (Dr.) Priyangshu Rana Barthakur

Dean, Faculty of Science and Technology

ICF AI University of Tripura



MESSAGE

It is my honor to announce that our Department of Chemistry has come up with its third volume of CHEMINEWS, the annual newsletter that encompasses all the achievements of our faculty members and students for 2023. Since our establishment as a department in 2018, we have come a long way in the academia and it is my pleasure that the Department of Chemistry has been an all-round performer from the very beginning of its great endeavor. Our first newsletter was a great success and was highly appreciated in the ICFAI family which encouraged the whole department to come up with the second volume. All the academic and related achievements have been put together in this newsletter and serves as our annual achievements summary.

Under the favorable teacher-student ratio the Department of Chemistry boasts to run B.Sc. (Hons), M.Sc. as well as PhD programs in parallel. The close mentoring by the faculty members proved to be of great value and helped the students to overcome difficulties during the blended offline-online teaching mode during the pandemic situation. The teaching methodology ensured that no students are left behind in this technology dependent holistic teaching approach. Our methodology blended seamlessly to meet uninterrupted quality teaching throughout the year. I personally thank all the faculty members, students and their parents for providing ample support for the Department of Chemistry to grow and achieve such a great height.

Quality education is of foremost importance to us and our faculty members are in constant effort to modify the syllabus as per need throughout the academic session. Theoretical as well as practical experiments are introduced and modified regularly as per suggestions. Through various national and international seminars and webinars, the students are constantly being exposed to the advanced research topics. We have also conducted international webinar on entrepreneurship and encourage the students to build Atmanirbhar Bharat. We constantly encourage our students for higher studies, research and prepare them for the job market through extra scheduled classes for competitive examinations like NET, GATE, JAM etc. Campus drives have also been initiated with great success in our department and I am happy to announce that six M.Sc students got job offer from TCG Lifesciences Pvt. Ltd.

Apart from the regular curriculum the students are taught ethics, soft skills, team work etc. Creative and innovative thinking are always appreciated which helps the student to flourish in academia. In constant encouragements they take part in various workshops, seminars, projects, trainings etc. The students are always encouraged to take part in extracurricular activities and many have achieved great feats. This newsletter offers an attempt to capture the glimpse of our vast academic and academia-related activities in Department of Chemistry nurtured by the ICFAI University Tripura.

I thank the entire team of editorial members for their overwhelming efforts to publish the much awaited second volume of CHEMINEWS.

Dr. Swarnali Nath Choudhury

HOD Chemistry, Professor

ICFAI University Tripura

Issue Editors:

Dr. Swarnali Nath Choudhury

Professor & HOD Chemistry

Dr. Prasanta Sutradhar

Assistant Professor, Chemistry

- Theoretical Spectroscopy
- Natural Products
- Nano-chemistry and Nanotechnology
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Assistant Professor, Chemistry

Dr. Subhadip Roy

Assistant Professor, Chemistry

Dr. Ankita Chakraborty

Assistant Professor, Chemistry

Dr. Saheli Roy

Assistant Professor, Chemistry

Courses Offered:

- B. Sc. (Hons.) Chemistry
- M. Sc. Chemistry
- Ph. D. Chemistry

Area of Research:

- Bio-inorganic Chemistry and Catalysis
- Coordination Chemistry
- Supramolecular Chemistry
- Surfactant and Surface Activity

About the Department of Chemistry:

The Department of Chemistry started its journey in 2018 and dedicated itself towards the benefit of the society to promote science and nurture the young students. B.Sc. (Hons.), M. Sc. And Ph. D. programs are being offered and the advanced education is carried out by highly qualified faculty members actively engaged in research. Students are exposed to the cutting edge research and technologies and are trained in theory as well as practical classes accordingly. Regular seminars, workshops and webinars are arranged to expose the students to the current advancements in science and related fields. Students take part in summer internship programs in prestigious academic institutions. The M.Sc. students experience advanced research in their M. Sc. Project tenure under the guidance of Departmental faculty members. We also organize campus drive for the recruitment of interested students.

Highlights of the Department:

- UG, PG and Ph.D. programs
- Highly qualified faculty members
- Well-equipped laboratory facility
- Active research and publications in high impact international journals
- International and national seminars and webinars by renowned experts
- Preparatory special classes for NET, GATE, JAM etc.
- Campus drive for students
- Five students from B. Sc. Chemistry (Hons.) qualified JAM 2023 and 3 students qualified CUET 2023.

EVENTS

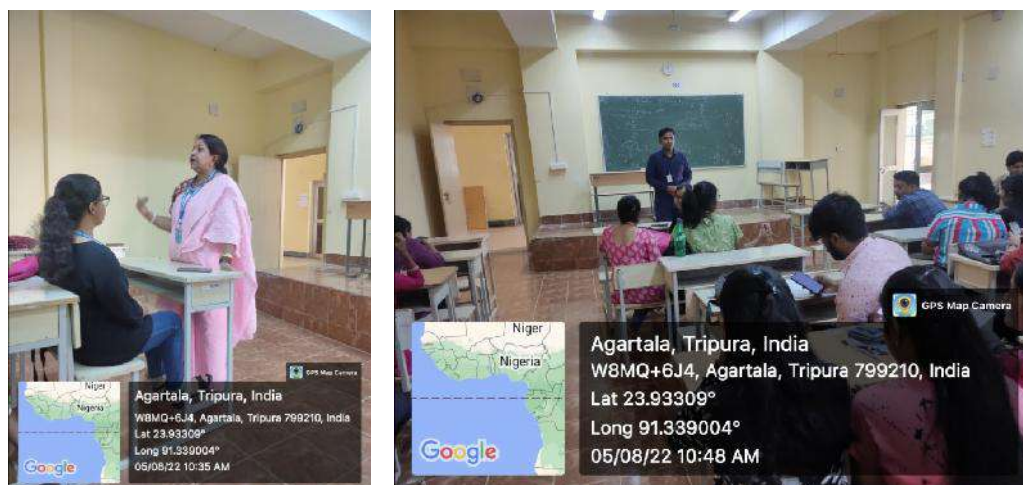
“Birthday Celebration of Acharya Prafulla Chandra Ray”



Acharya Prafulla Chandra Ray was born on August 2, 1861. Ray was an eminent chemist, historian, educationist, industrialist and philanthropist. He is credited to have set up the first modern Indian research school in chemistry and is regarded as the father of chemical science in India. The Department of Chemistry has celebrated birthday of Acharya Prafulla Chandra Ray on 2nd August 2022.

Career Counselling for the Chemistry Students

Career counselling, also known as career guidance, is counselling designed to help with choosing, changing, or leaving a career and is available at any stage in life. One's career is often one of the most important aspects of adulthood, and embarking on a new career, can be a stressful event, especially when economic difficulties such as recession are a factor. A career counselor can help by outlining and discussing one's potential career options. The Department of Chemistry organizes seminar for the benefit of the students on 5th August 2022.



Orientation Programme of Department of Chemistry



As a part of the Academic Activity of the Department of Chemistry, Orientation program was organized on 20th August, 2022 for the first Semester students of the Department of Chemistry, ICFAI University Tripura. In this orientation programme all the Faculty members deliberated words of advice/suggestions to the newly admitted students of B. Sc. and M. Sc.

Teacher's Day Celebration

Teachers are the ones that hold knowledge and empathy for their students. The most important person behind the success of a student is his or her Teacher. Without the help and guidance of teachers, students would not know and understand to go about their lives. We celebrate Teacher's Day on the fifth of September because it is the birthday of India's former President, Dr Radhakrishnan. He was a person who loved and adored children. Dr Radhakrishnan would fill in as a teacher, and the students loved him. Teachers leave a significant impact on each person's life. They help you, motivate you, and guide you to become the best version of yourself. The Department of Chemistry has celebrated Teacher's Day on 5th September 2022.



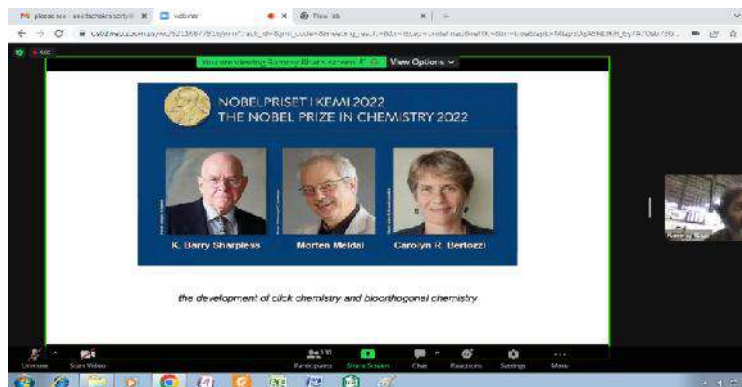
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India
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Long 91.338512°
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Fatikchhara, Tripura, India
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India
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Long 91.338513°
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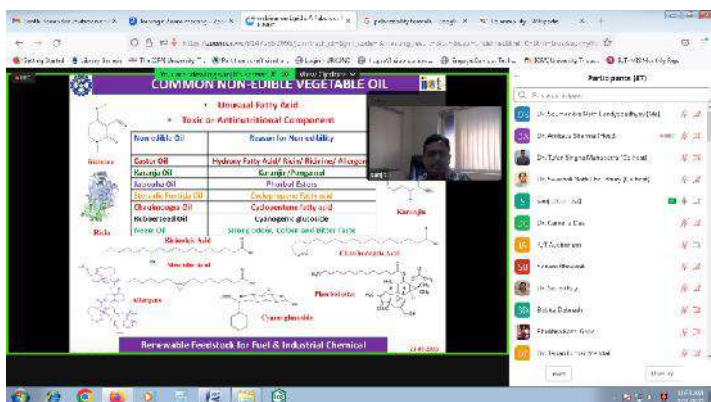
Webinar on the topic of "On click and bioorthogonal chemistry: the research that won the Nobel Prize for chemistry in 2022"

The Department of Chemistry has organized a webinar on 10th November 2022. Dr. Ramray Bhat, has delivered the lecture on "On click and bioorthogonal chemistry: the research that won the Nobel Prize for chemistry in 2022". The Royal Swedish Academy of Sciences has awarded Carolyn R. Bertozzi, Morten Meldal, and K. Barry Sharpless the Nobel Prize in Chemistry 2022, for the development of click chemistry and bioorthogonal chemistry.



Dr. Ramray Bhat, Associate Professor, Department of Molecular Reproduction, Development and Genetics, Indian Institute of Science (IISc), Bangalore, India, is delivering his lecture.

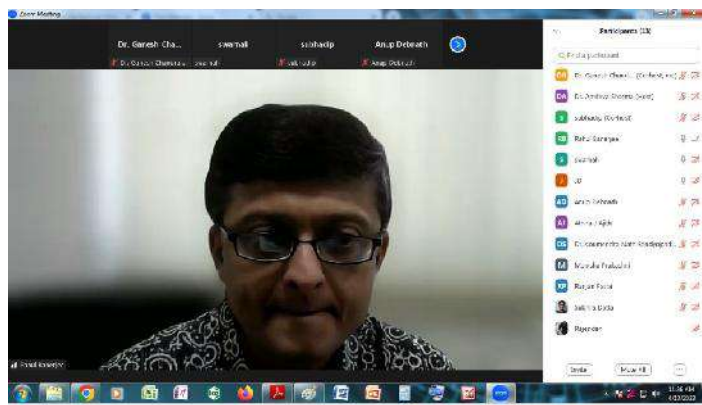
National Webinar on "Lipids: A fabulous food component and importance of its quality in human nutrition"



Dr. Sanjit Kanjilal, Senior Principal Scientist, Centre for Lipid Science & Technology, CSIR-Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad, India is delivering his lecture.

The Department of Chemistry has organized a webinars for the benefit of the students and faculty members on 21st March 2023. Dr. Sanjit Kanjilal, has deliver the webinar on “Lipids: A fabulous food component and importance of its quality in human nutrition”. Lipids include fat related substances such as cholesterol, phospholipids, and triglycerides, which play essential roles in maintaining health.

National Webinar on "Porous Framework Materials: What are they good for?"



Dr. Prof. Dr. Rahul Banerjee is delivering his speech.

The Department of Chemistry has organized a webinars on 13th April 2023. Prof. Dr. Rahul Banerjee, Department of Chemical Sciences, Indian Institute of Science Education and Research (IISER) Kolkata, India has delivered the webinar on “Porous Framework Materials: What are they good for?”.

Seminar on “Career Grooming & Personality Development”

The Department of Chemistry has organized a seminar on 13th April 2023. Mr. Arpan Banerjee, Radio Jockey, BIG FM has delivered lecture on “Career Grooming & Personality Development”.



Mr. Arpan Banerjee, Radio Jockey, BIG FM is delivering his lecture.

Seminar on “Constitutional Rights, Duties and Values”

The Department of Chemistry organized a seminar on 17th April 2023, Dr. Debabrata Roy, Assistant Professor and Coordinator at ICFAI Law School (ILS), The ICFAI University Tripura has delivered a lecture on “Constitutional Rights, Duties and Values”.



Yoga Skills

Yoga is an ancient practice that involves physical poses, concentration, and deep breathing. A regular yoga practice can promote endurance, strength, calmness, flexibility, and well-being.

Yoga is now a popular form of exercise around the world. The Department of Chemistry has organized a programme on Yoga Skill for the benefit of the students and faculty members. On 18th April 2023, Prof. Ranjana Sinha, The ICFAI University Tripura has delivered her speech and shown “Yoga Skills”.



Awareness Programme on Tree Plantation



Trees reduce the urban heat island effect through evaporative cooling and reducing the amount of sunlight that reaches parking lots and buildings. Many species of wildlife depend on trees for habitat. Trees provide food, protection, and homes for many birds and mammals. The Department of Chemistry, ICFAI University Tripura has organized an awareness programme on Tree Plantation on 18th April 2023.

Seminar on “Gender Sensitization: Equality and Opportunities”

Gender sensitization is the teaching of gender sensitivity and encouragement of behavior modification through raising awareness of gender equality concerns. In other words, it is the

process of making people aware of gender equality and the need to eliminate gender discrimination. The Department of Chemistry has organized a seminar on 18th April 2023. Dr. Surojit Sen Gupta, Associate Professor, Department of Sociology, Maharaja Bir Bikram College has delivered lecture on “Gender Sensitization: Equality and Opportunities”.

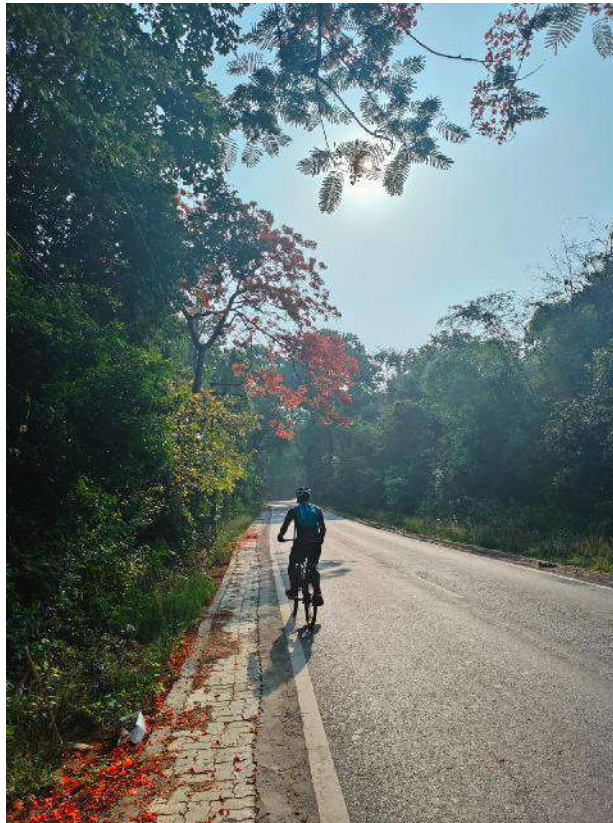


Dr. Surojit Sen Gupta is delivering his lecture

EXTRACURRICULAR ACTIVITIES

B.Sc Chemistry student, Mr. Shoummyadeep Paul (ID No 20IUT0060010) secured 1st in Photography during ICARIA-2K23 held between 31st January to 3rd February, 2023.

The photo on the theme 'Streets of Agartala' is appended below:



CAMPUS DRIVE FOR RECRUITMENT

The Department of Chemistry successfully conducted campus drive for the M. Sc. Chemistry students who got their final degree. ARAGEN LIFE SCIENCES visited our campus for campus-recruitment and one of the M. Sc. Pass-out students (2020-22) got selected after the written test and interview round. The name of one of the successful candidates are:

- **Pranjit Biswas**



Selected students in ARAGEN LIFE SCIENCES

Post – Junior Research Associate in Analytical Department under the grade of Professional in level ‘PG’ in Hyderabad Telangana

Aragen is a trusted R&D and manufacturing partner to the global life sciences industry. From concept to commercial, they transform your ideas into solutions for better health.

Offer letter to Pranjit Biswas from ARAGEN LIFE SCIENCES

SUMMER INTERNSHIP PROGRAM

Summer internship project is the integral part of our B.Sc. and M.Sc. curriculum of ICFAI University, Tripura. Students of Department of Chemistry are doing their IP during the summer holidays and tenure is normally 54 days. Students can bag an internship through various means since our University gives ample opportunities to the students to interact with some prestigious institutes of India. During their internship the students have to submit a weekly report to their respective mentor and after the completion of their internship project students have to submit a final report. Internship project presentation is also conducted for the students.

In the 2021-2022 academic session Department of Chemistry, ICFAI University has placed their students in various prestigious organizations both in offline and online mood. B.Sc. 1st Year and B.Sc. 2nd year chemistry was placed in Spoken Tutorial Course of IIT Bombay. The courses in which our B.Sc. 1st year students were enrolled was Introduction to Computers, Libre Office, HTML and B.Sc. 2nd year students are enrolled C/C++ , Advanced C/C++ , Java, Java Business, Netbeans. M.Sc. 1st year students have done their IP in CIPET, Agartala in offline mood.

In 2022-2023 Department of Chemistry has managed to place all the students in offline mood for internship program in the various organizations of Tripura. B.Sc. 1st year students are placed in Tripura State Pollution Control Board, Agartala. Our B.Sc. 2nd year students are placed in CIPET, Agartala. M.Sc. 1st year students are place in Tripura University, ONGC, CIPET, Dharmanagar Government Degree collage, Regional Food Laboratory and ICV collage, Belonia.

SPECIAL ACADEMIC ACHIEVEMENT

The Department of Chemistry is happy to announce that the following final year B. Sc. Chemistry (Hons.) students successfully qualified for JAM and CUET 2023:



CUET qualified students:

- Micheal Biswas (20IUT0060065)
- Sampili Debbarma (20IUT0060013)
- Sarmili Das (20IUT0060055)

CREATIVE EXPRESSIONS

Dr. Tufan Singha Mahapatra, Assistant Professor, Department of Chemistry, was invited to deliver an “Invited Lecture” at the Emergent Materials for Energy and Environment (EMEE-2023) conference organized by the Department of Chemistry, **IIT Roorkee** on March 04, 2023 - March 05, 2023, at IIT Roorkee.

He has delivered his presentation entitled ‘Two-Dimensional Lanthanide Coordination Nanosheets for 1,1-Diamino-2,2-dinitroethene (FOX-7) Explosive Detection’.

Abstract: Lanthanide coordination nanosheets have emerged as a new type of two-dimensional (2D)-nanomaterials in recent years.^[1-2] Despite the recent surge of interest in such material, research in this area is still in its infancy. Luminescent lanthanide ions, Eu(III) or/and Tb(III), as well as a bis-terpyridine ligand (L), have been used in this study as the building blocks for developing the archetypal layered structure of coordination polymers (CPs) (L•Eu / L•Tb). Luminescent 2D nanosheets are obtained through exfoliation of the layered precursor of CPs in a suitable solvent system following a sonication-assisted strategy. These nanosheets exhibit lateral sizes on the micrometer scale (0.3–1 μm) and ultrathin thickness (2–6.5 nm). 1,1-diamino-2,2-dinitroethene (FOX-7) is a high-energy-density material (HEDM) with comparable performance to RDX, but relatively less explored. FOX-7 is of serious concern to national security and safety for its unauthorized usage. Its rapid and efficient detection is a challenging issue. The prepared luminescent nanosheets are used to detect FOX-7 both in solution and solid state through the distinct color change from red (L•Eu) and green (L•Tb) to colorless under UV light (Figure 1). Presumably, this is the first representative example of a molecular sensor for FOX-7.^[2] Importantly, above referred exfoliated nanosheets can be utilized as a solid detection system and also for developing commercial spray kits for the quick onsite screening of explosives by the naked eye.

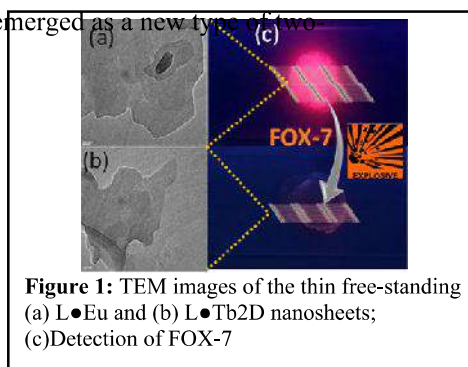
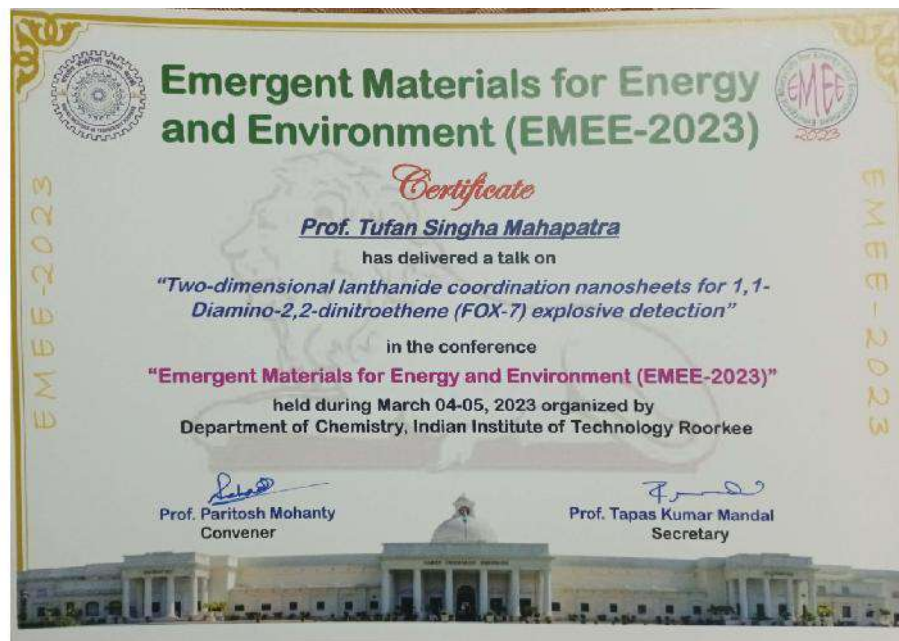


Figure 1: TEM images of the thin free-standing (a) L•Eu and (b) L•Tb 2D nanosheets; (c) Detection of FOX-7

References:

1. S. Ashoka Sahadevan, N. Monni, A. Abhervé, D. Marongiu, V. Sarritzu, N. Sestu, M. Saba, A. Mura, G. Bongiovanni, C. Cannas, F. Quochi, N. Avarvari and M. L. Mercuri, *Chem. Mater.*, **2018**, *30*, 6575
2. T. Singha Mahapatra, A. Dey, H. Singh, S. S. Hossain, A. K. Mandal and A. Das, *Chem. Sci.*, **2020**, *11*, 1032

The certificate is attached below:



Scanned with OKEN Scanner



Picture of Dr. Tufan Singha Mahapatra while delivering speech during the conference.

SCIENTIFIC PUBLICATIONS

Research and Publications 'Cheminews' (2022-23)

All the faculty members from Chemistry Department are devoted to Research related activities and during this course of time (*July 2022 to June 2023*), the faculty members published a total of **six (6) research articles** in reputed international journals, and **two Book Chapters**.

The **Research Article** details are as follows in chronological order:

(1) In *September 2022*, **Dr. Tapan Kumar Mandal**, Professor and Dean of Research & Development, co-authored a research article in the 'International Journal of Science and Research (IJSR)'.

Publication details are as follows:

Title: Calotropis Gigantea Synthesis to Prepare Fe₃O₄ Nanopowder in Advance Food Analysis

Authors: Debanjali Barman Roy, Nitin Rawat, Sachin Singh Selal, Sachin Lodhi,

Bhupendra Singh Rawat, Mridul Bhandari,
Richa Saxena, Tapan Kumar Mandal

Highlight: Recently, a number of reports have been published on plant mediated NPs synthesis. The green synthesis method to prepare nanomaterial is environment-friendly, and the importance of nanomaterial is emerging with new ideas and advanced technology. This paper deals with the novel preparation method of Fe_3O_4 nanomaterial by taking *Calotropis Gigantea* leaves as a natural polymer. The green synthesis has been used as an environment friendly method which would not be harmful to the environment. The as-prepared nanomaterial is characterized using XRD, SEM and FTIR to study their properties which will help to give its usefulness in the field of food analysis. It is very necessary to develop various methods to characterize nanomaterials in food products.

(2) In *September 2022*, **Dr. Subhadip Roy**, Assistant Professor, Department of Chemistry co-authored a research article under the SCI category in the international journal named 'ChemistrySelect' from Wiley Publisher with an Impact Factor of 2.307 (Clarivate Analytics).

Publication details are as follows:

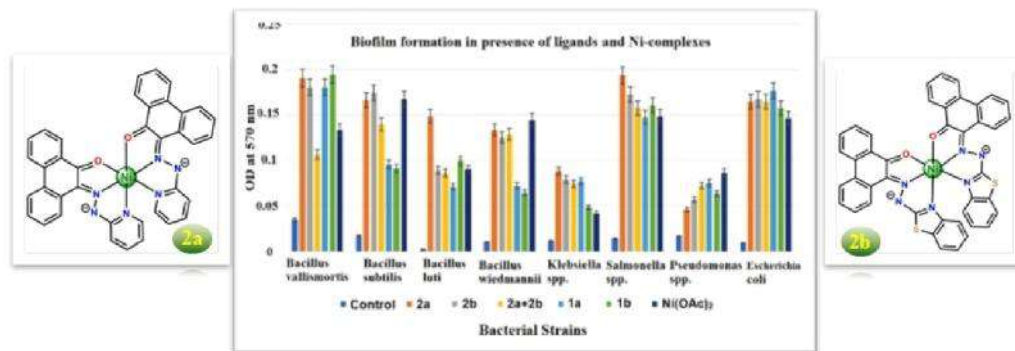
Title: Molecular and Electronic Structures, Spectra, Electrochemistry and Anti-bacterial Efficacy of Novel Heterocyclic

Hydrazones of Phenanthrenequinone and Their Nickel(II) Complexes

Authors: Soumitra Dinda, Debapriya Maitra, Bedaprana Roy, Prattusha Khan, Aratrika Samajdar, Dr. Arup Kumar Mitra, Dr. Subhadip Roy, Dr. Arpan Mondal, Prof. Kausikisankar Pramanik*, Dr. Sanjib Ganguly*

Highlight: The antimicrobial activity and biofilm forming ability of two new homoleptic nickel(II) complexes of 9,10-phenanthrenequinone grafted pyridyl and benzothiazolyl hydrazones have been explored along with in depth analysis of their electrochemical and spectral properties.

Graphic:



(3) In *November 2022*, **Dr. Ganesh Chandra Paul**, Assistant Professor, Department of Chemistry published a mini review article in the international journal named 'Der Pharma Chemica' from the Scholars Research Library publisher, United Kingdom.

Publication details are as follows:

Title: Catalytic Applications of Transition Metal Complexes Based on *o*-Aminophenol Ligands

Author: Ganesh Chandra Paul

Highlight: The present short review covers the catalytic applications of transition metal complexes based on sterically hindered functionalized *o*-aminophenol type ligands. Aminophenol based ligands have had a tremendous and continually growing impact on catalysis research. Their utility spans over a number of areas including homogeneous catalysis, small molecule activation, carbon dioxide

reduction, and hydrogen evolution processes. For the development of a catalyst metal-ligand covalency is necessary via mutual cooperation and strong electronic coupling between a metal center and coordinating ligands.

(4) In *January 2023*, **Dr. Prasanta Sutradhar**, Assistant Professor, Department of Chemistry co-authored a research article under the SCI category in the international journal named 'Crystal Research and Technology' from the Wiley Publisher with an Impact Factor of 1.599 (Clarivate Analytics).

Publication details are as follows:

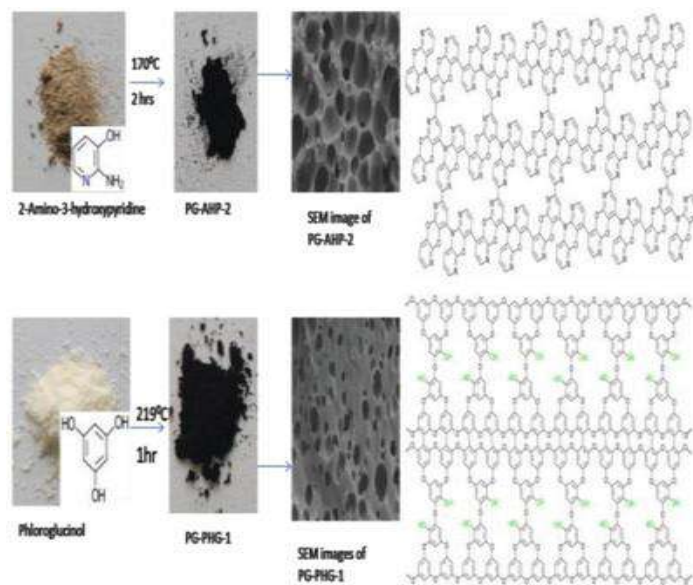
Title: Design of Porous Graphene Materials from Organic Precursors

Authors: Ranjit Debnath, Prasanta Sutradhar, and Mitali Saha*

Highlight: The present work deals with the design and synthesis of porous graphene from organic precursors under normal atmospheric conditions. The results

suggest that apart from synthesis methods and reaction conditions, the structure of organic precursor is a critical factor which requires to be optimized in order to develop porous graphenic structure.

Graphic:



(5) In *January 2023*, **Dr. Tufan Singha Mahapatra**, Assistant Professor, Department of Chemistry along with his Ph.D. research scholar **Mr. Bilash**

Chandra Roy, published a review article under the SCI category in the international journal named 'Soft Matter' from the Royal Society of Chemistry publisher, UK with an Impact Factor of 4.046 (Clarivate

Analytics). The Graphic illustration of the work was also featured as a '*Front Cover*' in the journal's issue 10.

Publication details are as follows:

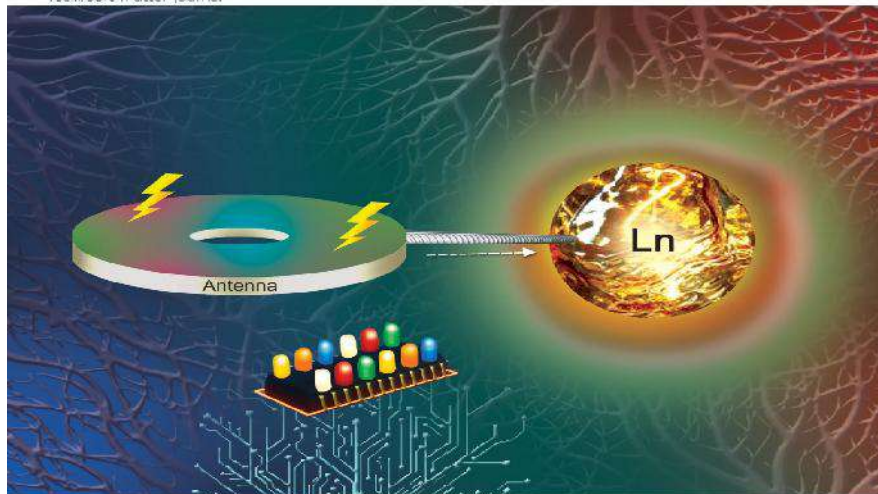
Title: Recent advances in the development of europium(III) and terbium(III)-based luminescent supramolecular metallogels

Authors: Bilash Chandra Roy and Tufan Singha Mahapatra*

Highlight: This review demonstrates the facets of newly developed luminescent Eu(III) and Tb(III) based supramolecular metallogels with fascinating applications in the fields of optoelectronic devices, stimuli responsiveness, self-healing, luminescent films, and sensors

.

Graphic:



ISSN 1744-6848



ROYAL SOCIETY OF CHEMISTRY
REVIEW ARTICLE
Bilash Chandra Roy and Tufan Singha Mahapatra
Recent advances in the development of sensing and catalytic applications of lanthanide-based fluorescent supramolecular metalloplexes

(6) In *June 2023*, **Dr. Tufan Singha Mahapatra**, Assistant Professor, Department of Chemistry along with his Ph.D. research scholar **Mr. Bilash Chandra Roy**, published a review article under the SCI category in the international journal named '*New Journal of Chemistry*' from the Royal Society of Chemistry publisher, UK with an Impact Factor of 3.925 (Clarivate Analytics).

Publication details are as follows:

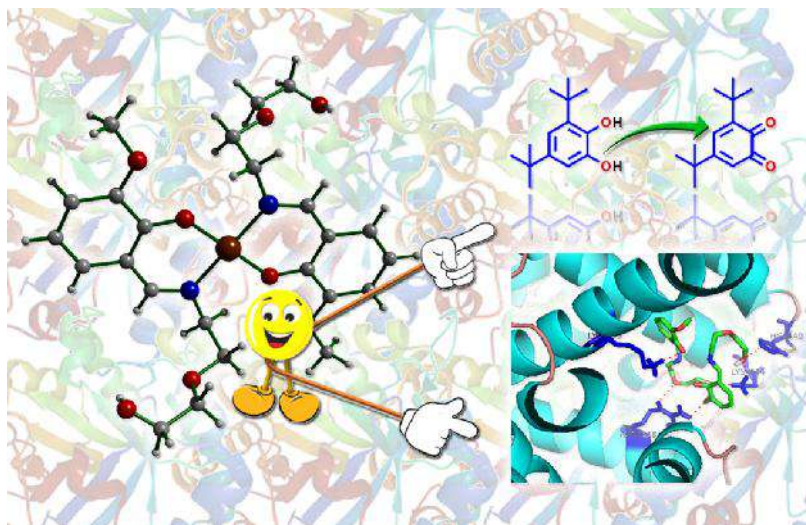
Title: Investigations on a mononuclear Cu(II) Schiff base complex: theoretical

Graphic:

calculations, catechol oxidase activity, and protein binding interaction analysis

Authors: Bilash Chandra Roy, Biswarup Dutta, Dipmalya Basak,* Surajit Debnath,* Debashis Ray* and Tufan Singha Mahapatra*

Highlight: A new mononuclear Cu(II) complex has been assessed in detail using experimental and theoretical calculations and explored as a model for catecholase activity and protein binding (BSA & HSA) interaction analysis.



The **Book Chapter** details are as follows:

(1) In *November 2022*, **Dr. Tufan Singha Mahapatra**, Assistant Professor, Department of Chemistry along with his Ph.D. research scholar **Mr. Bilash Chandra Roy**, published a Book chapter in IIP Proceedings (imprint IIP under Raja Ram Muhan Roy National Agency, Ministry of Education, Govt. of India and under Bowker ISBN Agency, USA) with ISBN No. 978-93-95632-67-6.

Chapter Title: Contemporary Trends in the Synthetic Aspects, and Magnetic Properties of 3d-4f Heterometallic Cubane, Partial Dicubane, and Partial Tetracubane Core-Type Coordination Compounds.

Authors: Bilash Chandra Roy, Dr. Tufan Singha Mahapatra

Book Title: Futuristic Trends in Chemical, Material Sciences & Nano Technology

ISBN: 978-93-95632-67-6

IIP Proceedings, Volume 2, Book 13, Part 4, Chapter 1

DOI: <https://www.rsquarel.org/assets/docupload/rs12023B5D8BE4381ACB7F.pdf>



IIP Proceedings

www.iiproceedings.org

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Chikmagalur, Karnataka-577102, India
Paistey Circle, Novi, Michigan-48377, USA

ISO 9001:2015 certified, registered
as Publisher with imprint IIP under
Raja Ram Muhan Roy National
Agency, Ministry of Education,
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Dr. Tufan Singha Mahapatra

Department of Chemistry
Faculty of Science and Technology,
ICFAI University Tripura,
Agartala, Tripura

has published a chapter titled "*CONTEMPORARY TRENDS IN THE SYNTHETIC ASPECTS, AND
MAGNETIC PROPERTIES OF 3d-4f HETEROMETALLIC CUBANE, PARTIAL DICUBANE, AND
PARTIAL TETRACUBANE CORE-TYPE COORDINATION COMPOUNDS*" in the edited book

Futuristic Trends in Chemical, Material Sciences & Nano Technology.

IIP Proceedings, Volume 2, Book 13, Part 4.

ISBN: 978-93-95632-67-6

Publication Date : 01-November-2022



Nanjesh Benour
Director, IIP Proceedings

(2) In November 2022, **Dr. Saheli Roy**, Assistant Professor, Department of Chemistry published a Book chapter in IIP Proceedings (imprint IIP under Raja Ram Muhan Roy National Agency, Ministry of Education, Govt. of India and under Bowker ISBN Agency, USA) with ISBN No. 978-93-95632-67-6.

Chapter Title: Recent Advances in Polymer Nanocomposite Membranes for Water Treatment

Author: Dr. Saheli Roy

Book Title: Futuristic Trends in Chemical, Material Sciences & Nano Technology

ISBN: 978-93-95632-67-6

IIP Proceedings, Volume 2, Book 13, Part 4, Chapter 2

DOI: <https://www.rsquarel.org/assets/docupload/rsl20237DDFAC2A3B1CDDC.pdf>



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Saheli Roy

Department of Chemistry,
Faculty of Science and Technology,

ICFAI University Tripura, Agartala-799210, Tripura (W), India

has published a chapter titled "RECENT ADVANCES IN POLYMER NANOCOMPOSITE
MEMBRANES FOR WATER TREATMENT" in the edited book *Futuristic Trends in Chemical,
Material Sciences & Nano Technology, IIP Proceedings, Volume 2, Book 13, Part 4.*

ISBN: 978-93-95632-67-6

Publication Date : 01-November-2022

A handwritten signature in black ink, appearing to read 'Nanjesh Bannur'.

Nanjesh Bannur
Director, IIP Proceedings

In addition to carrying out research work, our faculty members are also involved in *reviewing processes* with many reputed journals as *peer reviewers*.

Dr. Subhadip Roy, Assistant Professor, Department of Chemistry, has received the Certificate of Recognition and Appreciation for his valuable contribution and for maintaining the highest editorial standards as a peer reviewer from **American Chemical Society Publications**.



Dr. Tufan Singha Mahapatra, Assistant Professor, Department of Chemistry, has associated in *reviewing processes* with **Royal Society of Chemistry** journals as *peer reviewers*. Link: <https://drive.google.com/file/d/1T-UMd6aqJwaPo6czPwtG7EEMc-Kz2e6J/view?usp=sharing>

Dr. Saheli Roy, Assistant Professor, Department of Chemistry, has been involved in *reviewing processes* with **Scientific Reports** (published by **Nature**) as *peer reviewers*. Link: <https://drive.google.com/file/d/1jScJbymW66oJI6YBxvIH4OmcK5o3yxAj/view?usp=sharing>

STUDENTS' SPEAK



“It's hard to delineate & would be less enough to talk about my alma mater. It had been a tremendous three years & had a great experience. The professors who work here are extremely obliging & they had good academic records which is commendable. The best thing about ICFAI I feel they are highly appreciating, they not only focus on studies substantially they give more importance to extra co-curricular activities. They conduct regular classes, practical labs, interactive learning & doubt clearing sessions. The hostel facilities are well & good with anti- ragging

“ICFAI University Tripura offers an enriching academic journey. The well-equipped laboratories and experienced faculty create an ideal learning environment. The curriculum fosters critical thinking and problem-solving skills, while seminars and guest lectures provide insights into the latest advancements. The extensive library resources aid in-depth study and research. Collaborative projects and interactive sessions foster a vibrant student community. Practical applications of chemistry prepare students for rewarding careers in diverse industries and research fields”.



““Excellence is not a skill. It is an weapon for an student.“ ICFAI University TRIPURA has helped me to focused on my future goals, helped me to learn with curiosity, developed different good habits and learning skills , guided me in the right track. Anti-ragging which is most impressive in this University. The Faculty of our Chemistry Department motivates us for learning, and helps to clear even single doubt for every student, they are highly interactive and provide proper guidance.

Thanks to my University for providing a positive learning environment. ”.

- **Dipanwita Chakraborty**

M. Sc. Chemistry 1st Year





"It was my immense luck and fortune to be the part of ICFAI University where I can grow. The entire faculty and department left no stones unturned to shape one's future. My two years at ICFAI had been a wonderful experience of learning with prolific exposure to outside. Huge respect, love and devotion to the entire faculty members and department. It's their efforts that made me to count myself into better professionals."

Hrituparna Banik

M. Sc. Chemistry 2nd year



"As a student of ICFAI University Tripura the thing I like the most is the cooperative entertainment of the faculty members, who are always available for our help and clearing doubt, the classes provided are highly interactive, We are also provided with extracurricular activities and others opportunities to help us grow more . One of the most impressive quality of the university is it's anti-ragging environment."

- Amon Jamatia

- B. Sc. Chemistry 3rd year

"The best thing about ICFAI UNIVERSITY TRIPURA is that every day in the can day. We are provided with regular classes, lectures, labs, seminar, webinar, study m from the library and even we are provided with classes for JAM, GATE. The most like about our department is all the faculty members are very active, helpful, they patient and solves our doubts. And I love the positive atmosphere that surrounds us in

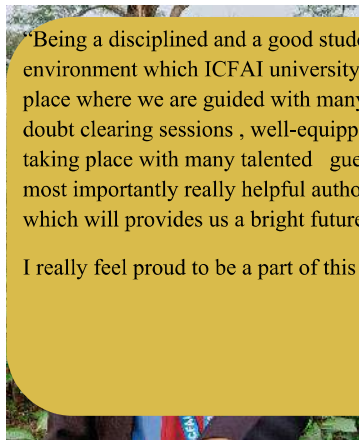
B.





“It was a great experience of studying in ICFAI University, Tripura as a PG student from the department of Chemistry. Our faculty members are very kind & cooperative. So thanks to all of them for being extremely helpful & for putting the students always first. Thanks for introducing us with our better version in life”.

Swagata Chakraborty
MSc Chemistry 2nd year



“Being a disciplined and a good student is not just a habit it is the environment which ICFAI university provides . It is the most excellent place where we are guided with many experienced faculty members ,many doubt clearing sessions , well-equipped laboratories, lectures , seminars taking place with many talented guests of honour , extra co-curricular and most importantly really helpful authority and the practical knowledge which will provides us a bright future.

I really feel proud to be a part of this university ”.

- **Ankana Roy**

B. Sc. Chemistry 3rdYear



“My institution is what makes me proud of, a true society with a broad objective of empowering citizens through world class quality education. The friendly and helpful behavior of the faculty members along with the anti-ragging campus is what fascinates me the most. The different ways of teaching methods that are accessible, the hostel facilities, the free Wi-Fi facilities are just icing on the top of a cake. Overall ICFAI University is helping me peruse my dreams in the best possible way”.

- **Diptanu Das**

B. Sc. Chemistry 3rd Year



“In my 5 years of experience from way back in 2018 to 2023 has dulcet context. I want to impart my sincere gratitude to all our faculty members and non-teaching staffs their perseverance through these trying times. We are nothing but the assemblage of our choices. Finishing my degrees at the ICFAI Tripura had been one of the finest choices I have ever made. Now also I am engaged in a course in this university. At the brink of every step of life comes the obstacles and the faculty members are always present to push us a step further towards utter perfection, motivating us to achieve the feat we dream of!!!!”.

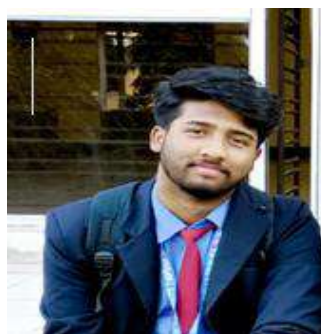
- Nikita Chakraborty

“Excellence is not a skill. It is an attitude.”... Yes, Excellence is the perfect tag for our ICFAI UNIVERSITY. Here we are provided with regular classes, Labs, Lectures, Seminars and extracurricular activities and most important we have the opportunity to clear our doubts and problem regarding studies. The faculty members are the best. They are very talented and highly interactive.

Thanks to ICFAI UNIVERSITY for EVERYTHING and felling very special to be a part of this wonderful University.

Ramanoj Shil

BSc
Chemistry 3rd year



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