





## Late Pratap Gogoi

'A heart that has touched so many lives can't help but
live on those it loved'
With love,respect and tond memories
Dept. of Chemistry
TIST



## FROM THE HOD'S

DESK



Dear Readers,

Greetings with New Year Wishes.

It gives me great opportunity to introduce the first edition of the quaterly Newsletter "THE LUSTRE" of the Department of Chemistry, JIST. This newsletter is a platform to present glimpse of activities and achievements of the faculty and students of the department in the last year to all the stakeholders. The greatest strength of the department is highly qualified and dedicated faculty and sincere staff who are making profound efforts in the progress of the department. Our students are also very innovative and ever eager to learn new concepts for which many of them have been able to show their academic excellence. The previous academic session has been an exceptionally challenging year because of COVID-19 pandemic, but

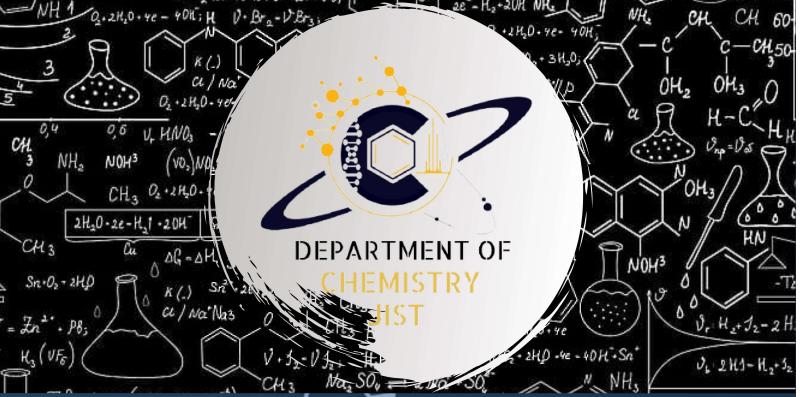
the academia has continued with passion and fervour by shifting our platform to digital mode through interactive online classes and regular monitoring of the students at every level.

Success and achievements are to be celebrated. Achievements, of whatever kind, is the crown of effort.

I would like to thank editors and members for their tireless efforts for bringing out this letter. It would definitely be an inspiration and motivation for the students, faculty and staffs to perform better and add on their contribution in the forthcoming issues. I wish all the very best for future endeavors.







### ABOUT THE DEPARTMENT

The Chemistry department was established in the year 1971 offering B.Sc. Honours course. M.Sc. and PhD courses in Chemistry are introduced from the academic session 2017–18 and 2018–19 respectively under ASTU, Guwahati. Alumni of this department excelled in various field such as research, industry and teaching etc. Our ex-students have done their PhD in reputed national and international Institutes like NCL-Pune, IITs, Indian Institute of Science, Bangalore, Indian Institute of Chemical Technology, JNCASR, Bangalore (one student has done his PhD under Prof. C.N.R. Rao)

#### **ACADEMIC PROGRAMMES**

- 1.UG Courses(B.Sc.)
- 2.PG Courses(M.Sc.)
  - 3.Ph.D Courses

# DEPA

## DEPARTMENTAL ACTIVITIES

1.An online orientation program for BSc. first semester was held on 1/10/2021 in which the freshers were introduced to the principal, faculty members and the available facilities of the department and the institute. The objective was to help the students to adjust with the campus environment through the session.

2.An online orientation program for MSc. first semester was held on 1/11/2021 jointly with Physics and Mathematics department in which the freshers were introduced to new campus environment, principal, faculty members and system of the institute.

3.An online fresher's event was held on 24/10/2021 in which the freshers shared their views and expectations from the institute and performed different extracurricular activities.

4.The Department started an initiative of seminar presentation by the students of M.Sc. 3rd semester as a part of course curriculum activity.

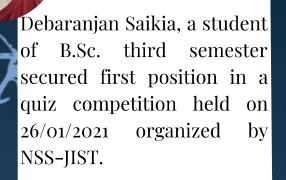
5. JIST Chemistry Society was formed in a meeting held on 28/12/2021 presided over by the HoD in the presence of students and faculty members of the department.



## STUDENT ACTIVITIES



Alpine Sharma Baruah, a student of B.Sc. 5th semester qualified the 'Homo-Success' examination set by Liverpool School of Tropical Medicine,UK out of 40,762 Indian candidates through her paper 'Women and Psychological Health'.





Neelav Kalita,a student of B.Sc. 3rd semester has been awarded with:

(i)Gold medal in 11th All Assam Jeet Kune Do Championship.

(ii)Gold medal in 33rd National Jeet Kune Do Championship.

(iii)National Bruce Lee excellent award,2021



Adarsh Sharma, a student of B.Sc. 5th semester has been awarded competency in

Ankur Jyoti Bhuyan, a student of B.Sc. third semester, secured first position in a quiz competition held on 26/01/2021 organized by NSS-JIST.

He also co-founded a foundation called 'Majuli Sapori Foundation' and has been carrying out different initiatives in Majuli,Cotton University and Dibrugarh University.

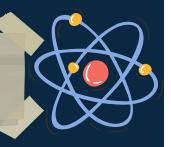
He also conducted an all Assam quiz competition called 'Prosnoban-1.0' and an inter-Majuli quiz competition as a quiz master.



Dorothy Gogoi,a student of B.Sc. 1st sem has been awarded 1st position in online art



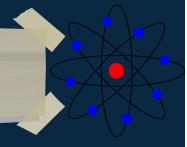
## RESEARCH SCHOLAR ACTIVITIES



Juri Goswami, a research scholar,was awarded certificate of appreciation for Poster presentation on "Carbon quantum dots originated from banana stem for colorimetric detection of aqueous media" at 2nd Hg2+ in International Conference on Future Aspects of Sustainable Technologies (FAST-2.0), Department of Chemistry, Central Institute of Technology,Kokrajhar,Assam in Virtual Platform.



## **FACULTY ACTIVITIES**





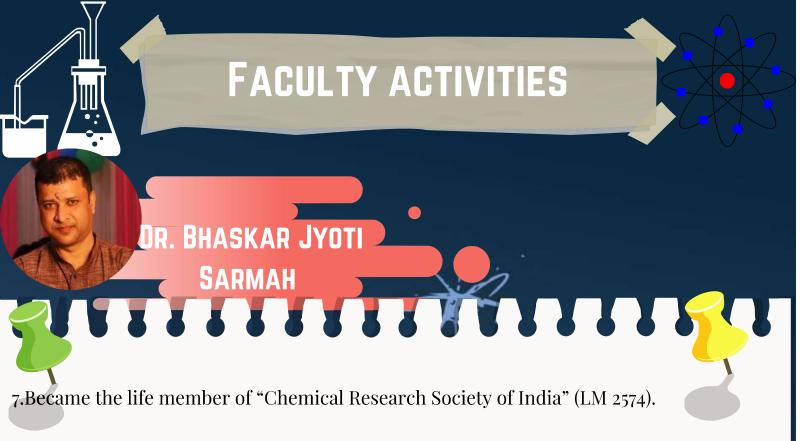
1.Received Certificate of Achievement and Commendation for participation and contribution to the "Remote Workshop to Strengthen Supply Chain Security in Pharmaceutical Industry in India and Bangladesh" from Pacific Northwest National Laboratory, United States Department of energy and Chemical Security Program, Unites State Department of State held on December, 2020.

- 2.Attended ACS Webinar "Science, Technology and Innovation: Key Drivers for Aatmanirbhar Bharat" on 23rd December, 2021.
- 3.Attended and presented a research paper "Synthesis of fluorescent carbon dots from waste biomass and its application as sensor for detection of Cr (VI) in aqueous media" in NCCT-2021 and ICRTC&CE-2021 organized by department of Chemistry, SMIT in collaboration with Association of Chemistry Teachers, Mumbai, India held during 28-30 December,
- 4.Completed a one-year research project as Principal Investigator on the topic "Low cost Synthesis of carbon nano materials from biomass, characterization and its application" funded by ASTU under TEQIP III.
- 5.Completed ONLINE two week Inter Disciplinary Refresher Course on "Advanced Research Methodology Tools and Techniques "from 15–30th April,2021 and obtained grade A organized by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of Ministry of Education.



1.Attended the American Chemical Society Science Talk (Online) on "Highly Versatile Atomically Thin Metallic Transition Metal Dichalcogenide Nanosheets" on 8th October 2021.

- 2. Got selected as Primary Evaluator for the Toycathon-2021 of AICTE.
- 3.Successfully completed online two week Faculty Development Programme (online) on "Advanced Research Methodology Tools and Techniques" from *15th to 30th April, 2021* organized by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching.
- 4.Participated and successfully completed the 5-day online Faculty Development Programme on the theme "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education(AICTE) from 4th October, 2021 to 8th October, 2021.
- 5. Attended the District level National Children's' Science Congress as evaluator.
- 6.Delivered lectures on Universal Human Values during the Induction program of B.Tech 1st semester students 2021 of JIST as one of the resource persons.



8.Became the life member of "The Society for Polymer Science, India".

9.Participated in "National Convention of Chemistry Teachers -2021 and International Conference on Recent Trends in Chemistry & Chemical Education -2021" (Virtual Mode) organized by Department of Chemistry, SMIT in collaboration with Association of Chemistry Teachers, C/O. Homi Bhabha Centre for Science Education (TIFR), Mumbai during 28th - 30th December 2021 and presented a paper entitled "Kinetic study of the Oxidative Addition (OA) of CH3I to Rh(I) Carbonyl Complexes Containing Pyridine Alcohol Ligands" (OP 87).

#### 10.Paper published in SCI Journals:

"Synthesis, Characterization and DFT studies of electron-rich Iridium(I) Carbonyl complexes of an unsymmetrical Phosphine-Phosphine mono selenide Ligand and their reactivity towards Alkyl Halides" Bhaskar Jyoti Sarmah, A. K. Guha, J. Nath, L. Saikia, Polyhedron 178 (2020) 114344. (Impact Factor 3.052). Elsevier Publication.

11.Completed two years research project as principal investigator entitled "Synthesis, Characterization and Catalytic Applications of Ruthenium and Iridium Metal Complexes and Metal Nanocomposites" funded by ASTU under TEQIP III.

12.completed one year research project as principal investigator entitled "Quantum Dot decorated layered Nanocomposites materials with enhanced Photoluminescence property for Light-Emitting Diodes" funded by ASTU under TEQIP III.





## **FACULTY ACTIVITIES**



1.Book chapter: "Ionic Liquid Based Polyoxometalates as Functionalized Organic-Inorganic Hybrid Materials for Catalytic Organic Reactions", Susmita Saikia & Ruli Borah, Advances in Organic Synthesis, 2021, Vol 14, 72–106, ISSN: 1574–0870, ISBN: 978–981–18–0372–7.

2.Study of photocatalytic properties of clay intercalated semiconductor composite material of guanidinium tetrachloroferrate for oxidative degradation of model dve in sunlight, Kabita Boruah, Debanga Bhusan Bora, Susmita Saikia Ruli & Borah, I Mater Sci: Mater Electron. https://doi.org/10.1007/s10854-021-07454-5.

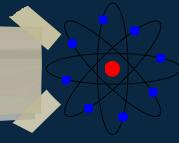
3.Bridge course (Chemistry) Lecture on "Green Chemistry, Green engineering" Induction Program 2021(Date 03–11–2021).

## DR. HIROK JYOTI BORAH

Published one book chapter entitled "Chemical Constituents of Cannabis sativa L. (Marijuana)" in the book "Cannabis Scientific and Societal Relevance" published by AkiNik Publications [September, 2021, 1st edition]: ISBN: 978-93-91216-80-1.



## **FACULTY ACTIVITIES**



## MR. SHASHWATA PRATIM

1.Got certified as "Basic Fitness and Nutrition" consultant. Basic Nutrition and Fitness course is a certified course of 6 credit offered by Institute of Nutrition and Fitness Sciences (INFS)

2.Was placed among Top 50 competitors in a competition called "Transformation Challenge" held from 30th August,2021 to 21st November,2021 in which around 39,000 competitors participated. Transformation Challenge is a 12 weeks Transformation of a competitor conducted by FITTR, World's largest online fitness and nutrition community.

3.Became the life member of 'The Society for Polymer Science,India

## 2021 GRADUATES

Pondicherry University

Subrata Goswami M.Tech Nanoscience & Technology Chandigarh University

Maitrayee Khargaria

### IIT

Priyanku Garg,IIT Guwahati Afrida Tabassum Baruah, IIT,Dhanbad

Dibrugarh University

Anudhrati Boruah Bidyut Chutia



Sukanya Dutta

Sikkim University

Partha Sarathi Gogoi Debasish Borah Rupam Bhuyan Samikhya Rani Bharali Jyotishkar Borgohain Udeshna Bharali









Bank PO

## PRATYUSH BORGOHAIN

Junior Assistant
Engineer (Production)
IOCL

**ABHIJIT DAS** 

Junior Assistant Engineer IOCL





0



FACULTY & STAFF MEMBERS









ADVISOR Dr. Parasa Hazarika



EDITOR

Dr. Bhaskar Tyoti &

Sarmah



EDITOR Mr. Shashwata Pratim Borah



STUDENT EDITOR Ankur Tyoti Bhuyan

STUDENT MEMBERS



Priyanshu Protim Saikia



Manash Pratim Saikia



Neelav Kalita



JORHAT INSTITUTE OF SCIENCE