



## **VISION OF THE DEPARTMENT**

The Department aims for internationally acclaimed recognition in teaching, research, innovation and societal services thereby raising the standard of Chemical & Polymer Engineering education in the country by developing and devising eco-friendly, socio-economically viable and innovative technologies thereby helping in Nation Building.

# **CHEM & POLY TIMES**

**Department of Chemical & Polymer Engineering**

**TRIPURA UNIVERSITY**

**Newsletter, 1st Issue, February - 2022  
(Coverage year : 2021)**

## **MISSION OF THE DEPARTMENT**

To impart quality education in the field of Chemical & Polymer Engineering and to produce professionally competent researchers, engineers and innovators having good leadership qualities to solve scientific and environmental challenges keeping in mind the safety and ethical concerns which could benefit the society at large.



## FROM THE DESK OF HOD(i/c):



Er. Harjeet Nath, B.Tech, M.Tech(R)

### Greeting from the Chemical & Polymer Engineering Department!!

The world is going through a tremendous positive transformation, and in education its effects are clearly discernible. We in the CPEN department want to be part of this positive change utilizing our core strengths in research & development, innovation and extension. Our journey started from 2016, when the department started offering M.Tech. course in Chemical & Polymer Engineering. Later during the year 2018 Ph.D. program has been also included in the offered courses from the department. Being an integral part of an institution of the stature of Tripura University (A Central University) naturally helps the department and its programmes imbibe all the values and ethos that have made the institute an epitome of excellence. The department has already received research and product development grants from various Govt. & Non-Govt. agencies such as DST, DBT, IEI, MSME etc. worth more than 70 Lakhs and has instruments worth more than 50 Lakhs which helped the department publish various high quality research publications and also secure various awards in seminars and conferences throughout the country. The research collaborations have also improved significantly over the years. We are supremely confident that in years to come the department with its rigorous and regularly updated syllabus, top notch research, innovative teaching techniques and active participation with industry will enforce the reputation of itself as well as that of Tripura University as an enviable seat of higher learning.

## WORKSHOPS & WEBINARS ORGANIZED BY THE DEPARTMENT

- Webinar (Demo Session) on Scientific Data Analysis and Plotting Quality Graphs using OriginLab Pro V2021b on 11th Nov, 2021



- Webinar (Demo Session) on Data Visualization and Analysis using SigmaPlot 14.5 on 8th Nov, 2021





# RESEARCH PUBLICATIONS



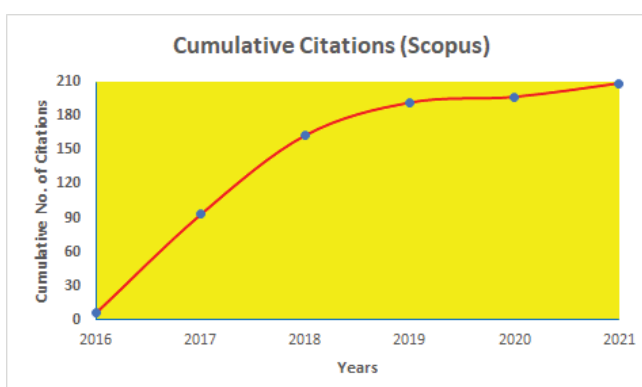
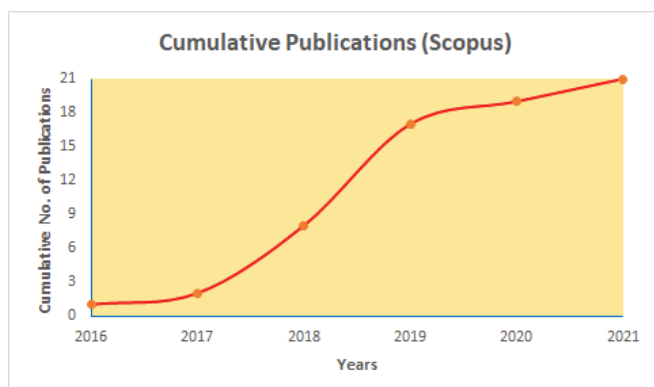
WILEY






| Authors                                      | Paper Title  | Year | Journals /Books /Book chapters   |
|--|--|------|--|
| Das D., Prakash P., Rout P.K., Bhaladhare S. | Synthesis and Characterization of Superabsorbent Cellulose-Based Hydrogel for Agriculture Application                | 2021 | Starch, Wiley Publishers (Impact Factor: 2.741)                                    |
| Nath H., Samal S.S., Manohara S.R.           | Current Guidelines and Regulatory Challenges, Insight into the Legal, Societal, and Ethical Issues of Nanomaterials. | 2021 | Nanotoxicology, 2021 (CRC Press by Taylor & Francis Group)                         |
| Bhattacharjee J., Mishra S., Das A.P.        | Recent Advances in Sensor-Based Detection of Toxic Dyes for Bioremediation Application: a Review                     | 2021 | Applied Biochemistry and Biotechnology, Springer Publishers (Impact Factor: 2.926) |

**Total Impact Factor during 2021 : 5.667**

**Total Impact Factor till 2021 : 50+**



## BOARD OF POST GRADUATE STUDIES EXTERNAL EXPERTS(2021)

|   |   |  |
|---|---|--|
|          |      |          |
| <b>Prof. Prabirkumar Saha</b><br>Ex-HoD, Dept. of Chemical Engineering, IIT Guwahati, Assam | <b>Prof. Abanti Sahoo</b><br>HoD, Depart. of Chemical Engineering, NIT Rourkela, Odisha | <b>Prof. Niranjana Karak</b><br>Ex-HoD, Dept. of Chemical Sciences, Tezpur University, Assam |



## Award and prizes won by Students

1st Prize (Oral Presentation) in 2nd International Conference on Waste, Energy and Environment ICWEE-2021 (23-24 September 2021) organized by Sathyabama Deemed University, Chennai by Mr. Sourab Baidya (M.Tech. Student) working under the guidance of Shri. Harjeet Nath, Assistant Professor, Dept. of Chemical & Polymer Engg. .Paper Title "Aspen Plus simulation of a typical co-gasification system".



1st Prize in 4th Students Project Program jointly organized by Tripura State Council for Science & Technology (5th March 2021) by Mr. Biswajit Sarkar and Mr. Tamal Rudra Paul, M.Tech Students working under the guidance of Shri. Harjeet Nath, Assistant Professor, Dept. of Chemical & Polymer Engg. .Paper Title "Biochars for soil amendment in the N.E. States of India".

## Award and prizes won by Faculties

Er. Harjeet Nath, Assistant Professor and current HoD (i/c) facilitated by Tripura University during Faculty Awards 2021 for developing Covid 19 Warbot for helping health care workers in Hapania Covid Care Centre, Agartala and also for receiving DST Young Scientist Travel Grant for presenting research paper at Sitges, Barcelona, Spain during the year 2018.



## FEEDBACK FROM ALUMNI

**Sumata Das**

(Currently PhD scholar at NIT Agartala)



My Alma mater has been my supreme guidance all throughout my semesters. The senior PhD scholars were helpful in need at any time ... My department has envisioned in me a new outlook and shaped me personally while dealing with any problems.



## LIST OF RESEARCH EQUIPMENTS AVAILABLE IN THE DEPARTMENT



1. UV-Vis Spectrophotometer
2. Mastercycler nexus
3. Horizontal Tubular Furnace
4. Hot Air Oven
5. Vertical Autoclave
6. Water Bath Shaker
7. Cooling Refrigerated Centrifuge
8. Incubator Bacteriological
9. Hot plate
10. Horizontal Laminar Flow
11. Chiller
12. Digital pH meter
13. Micro-controller Base Conductivity Meter
14. Turbidity Meter
15. Distilled water plant
16. Differential scanning calorimeter
17. Refrigerated C.R.P. Electronic
18. Refrigerated incubator and Shaker
19. Digital Flame photometer
20. Vacuum pump
21. Magnetic Stirrer with hot plate
22. Electronic Balance
23. Melt Flow index instrument
24. Moisture Analyzer
25. Bomb Calorimeter
26. Mini Freezer
27. Ultra-Sonicator Bath
28. Hot plate with Stirrer
29. Rotary Vacuum Evaporator
30. Multispin Magnetic Stirrer
31. FTIR



- Department facilities are open to use by external users on payment basis. For more details please follow the department website.



# DEPARTMENTAL GALLERY

## PLANTATION DRIVE



8.12.2021

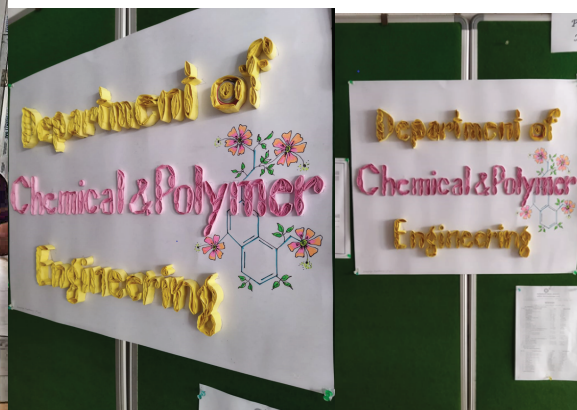
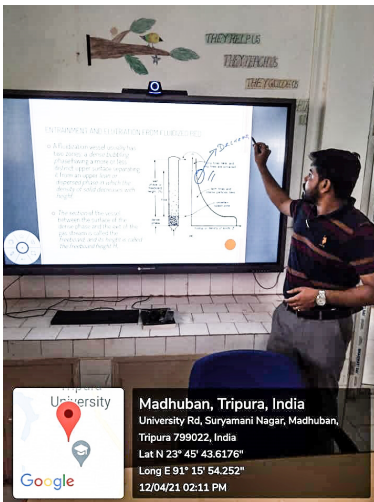
## FRESHERS' WELCOME



8.12.2021



## OTHER PICTURES







## DEPARTMENTAL FACULTIES & MEMBERS

### List of Faculty members

### Research Area



**Er. Harjeet Nath,**  
Assistant Professor  
and HOD (i/c)

Fluidization & gasification engineering,  
Waste water treatment, Simulation and  
optimization



**Dr. Sachin Bhaladhare,**  
Assistant Professor

Semiconductor, Organic solar cell,  
Biodegradable polymers, Polymer Processing,  
Polymer Blend/Alloy, Polymer Synthesis,  
polymer characterizations

### Supporting staff

### Role



**Dr. Joyasree Bhattacharjee**

Senior Technical Assistant



**Sri. Priyabrata Sarkar**

MRW (Group C)

### ADDRESS FOR COMMUNICATION :

Department of Chemical and Polymer Engineering  
Northern Block, Academic Building 5 (Old Life Science Building).  
Tripura University (A Central University), Suryamaninagar - 799022, Tripura West.  
email: [hod\\_cpen@tripurauniv.ac.in](mailto:hod_cpen@tripurauniv.ac.in)

**Editorial Team :** Er. Harjeet Nath,  
Dr. Joyasree Bhattacharjee  
Er. Debapriya Chowdhury (M.Tech student)