

Message from HoDs Desk...



Greetings from VNIT Nagpur! We, the Department of Chemistry, feel the great pleasure to introduce the first issue of our quarterly newsletter, which consists of departmental, activities and achievements. I would like to thank all the faculty members, non-teaching staff and students for their support and sincere progressive efforts for the betterment for the departmental development and look forward to the same. On this occasion, I congratulate all the team members of the editorial board for bringing up this issue.

~Prof. S.S. Umare

Department Overview...

Department of Chemistry, the oldest department in the Institute, has been serving to cater to the need of engineering students of various branches. The Department has introduced two years M.Sc. Program in Chemistry in 2012. Department has quality faculty members who are actively engaged in R&D working different areas of science and technology that includes Organic synthesis, Solid state chemistry, Crystal engineering and Nanomaterials, Polymers and elastomeric composites, Inorganic Chemistry, Photocatalysis and Bioinorganic Catalysis, Biophysical Spectroscopy and Photobiology, Chemical Thermodynamics, Resource Recovery and Environmental remediation, Biocatalysis and Organic Chemo-Sensor, Electroanalytical Chemistry. The faculty members of the department have been awarded various research fellowships. They have also authored many books. Participation in national and international conferences and publishing research work in various SCI journals are the regular activities of the Department. Many R&D projects are funded by different funding agencies viz. SERB, DST, MHRD, UGC, BRNS, CSIR, etc. More than fifty Ph.D. degrees have been awarded while around twenty-five students are pursuing their research work for the Ph.D. degree at present. The department also organizes different Continuing Education programmes such as the organization of STTP courses, Seminars, and conferences. Department has wellequipped laboratories with modern instrumental facilities. Department has been recognized by **DST-FIST** Sponsored Department since 2017!

FACULTY MEMBERS

DR. SURESH S. UMARE (HOD)

DR. JAYANT D. EKHE

DR. ANUPAMA KUMAR

DR. SUJIT K. GHOSH

DR. RAMANI V. MOTGHARE

DR. CHAYAN DAS

DR. ATUL V. WANKHADE

DR. UMESH R. PRATAP

DR. SANGESH P. ZODAPE

DR. SUSANTA K. NAYAK

DR. S. LAXMI GAYATRI

DR. ABHISHEK BANERJEE

DR. SANDIPAN HALDER

Educational Programme Continues...





Department has organized **SALTERS' CHEMISTRY CAMP** for 9th class student in association with IGNOU Regional Centre Nagpur, sponsored by Royal Society of Chemistry (RSC) and SALTERS' Institute, London during 7th-9th December 2018. This event was coordinated by Prof. S. S. Umare and Dr. Chayan Das.

Department of Chemistry has organized an international conference entitled *ENERGY AND ENVIRONMENTAL CHALLENGES (CE2C)-2019* in collaboration with TIFR Mumbai with the initiative of the faculty members Dr. Atul V. Wankhade (Conference Chair), Dr. Umesh R. Pratap (Conference Co-Chair), Dr. Sangesh P. Zodape (Organizing Secretary).



Recent Publications...

- **1.** Water compatible functionalized chitosan-based 4-HBA mimic imprinted polymer as a potential sorbent for salicylic acid. D Rahangdale & A. Kumar*, Separation Science Technology, **2018**, DOI:10.1080/01496395.2018.1546739.
- **2.** Magnetically separable indium doped ZnS-NiFe2O4 heterostructure photocatalyst for mineralization of Acid violet 7 dye, Ashok G. Shende, Sachin G. Ghugal, Devthade Vidyasagar, Sanjay B. Kokane, Suresh S. Umare*, Rajamma Sasikala, *Materials Chemistry and Physics* **2019**, 221, 483-492.
- **3.** Incorporation of Titania Nanoparticles in Elastomer Matrix to develop Highly Reinforced Multifunctional Solution Styrene Butadiene Rubber Composites Chayan Das,* Naresh D. Bansod, Bharat P. Kapgate, K. Rajkumar, Amit Das Polymer **2019**, 162, 1-10 (Elsevier).

Patent Filed...

Title: *Modified Chimney to Arrest Carbon Dioxide Gas and Carbon Soot*, 20173 1016214 A, Date of Publication: 14.12.2018 Inventor: Dr. Pijus Kanti Khatua, **Dr. Sujit Kumar Ghosh**, Dr. Anjan Mishra Mrs. Debashree Singh.

Academic Achievements...

Research scholar Ms. G. Archana has been awarded the Ph.D. degree. The thesis was entitled as "Evaluation and Remediation of some Emerging Contaminants from Aqueous matrix" many congratulations to Archan and the supervisor Dr. Anupama Kumar.

Welcoming the WINNERS...

Research scholar Ms. Mary R. Louis has been awarded best poster award for the poster entitled "Development of Multifunctional Antimicrobial Activated Carbon from Phosphoric Acid Treated Pods of Delonix regia" in the Sixth International Conference on Natural Polymers held at Mahatma Gandhi University, Kottayam, Kerala, India.

Research scholar Mr. Kapil S. Ingle has been awarded best poster award in 25th National Conference on Liquid crystal (NCLC) 2018, Organized by University of Allahabad for his poster entitled as "Synthesis and Characterization of Halogen Bonded Liquid Crystalline Study of Schiff Based Pyridine Alkoxy Derivatives."

Congratulating the SUCCEEDER...

M.Sc. students have qualified the prestigious National Eligibility Test (NET) exam and secured positions as **Junior Research Fellow** (JRF) and will be awarded fellowship from CSIR, MHRD, Govt. of India to continue research. Congratulations to **Mr. PradipBhai** and **Ms. Sumran**.











Research Grants...

The Department of Science & Technology (DST) Govt. of India supported Indo-Russian joint grant application of **Dr. Sandipan Halder** with **Professor Mikhail Krasavin** of St. Petersburg State University (Russia) devoted to the Development of tunable Chemo-sensors for metal ions based on the Castagnoli-Cushman templates.

The Department of Chemistry has received the grant under **DST-FIST** program for procuring sophisticated instruments and to create state of the art facilities. The instrument has been installed.



Dr. Anupama Kumar participated in the *Inter NIT Sports Meet* which was held at NIT Goa and was awarded the winning trophy for Table Tennis in Female category. **Big congratulations to her for receiving the** gold medal in Table Tennis for Singles, Doubles (Female) & **Best Player Trophy.**

M.Sc. students were awarded the 1st prize during the institutional sports meet for the Post Graduate student VIHANG. Cheers to the participants, TAMANNA, NIVEDITA. SMITAL & BHOJ.

Alumni Corner...

Alumni from M.Sc. (2016-18) batch **Mr. Chandrashekhar Tiwari** and **Mr. Ritesh Singh Mourya** have got admission in the doctoral program at IIT Chennai & University of Hyderabad respectively.











Editorial Board

Dr. SANDIPAN HALDER

ASSISTANT PROFESSOR

E-Mail: sandipanhalder@chm.vnit.ac.in

Mr. SHIVA SINGH

M.Sc. 2nd YEAR

shivasingh325@gmail.com

Ms. TAMANNA SINGAL

M.Sc. 1st YEAR

tamannasingal1996@gmail.com