



CHEM NEWS Issue 7



A Newsletter from the Department of
Chemistry, VNIT Nagpur, 2020, Issue 6

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DOWN TO CHEMISTRY...

Message from HoD's Desk...



Welcome to the Department of Chemistry, VNIT Nagpur! We, the Department of Chemistry, feel our enthusiasm to publish the sixth issue of our departmental newsletter, "*CHEM NeWS*." I, as a head of the department would like to thank all the faculty members, non-teaching staffs and students for their limitless support and sincere efforts for the betterment and development of department. On this occasion, I congratulate all the team members of the editorial board for bringing up this issue in a better shape.

Overview of the Department...

Department of Chemistry has started the journey from the inception of the institute, initially it has been serving to cater the need of engineering students of various branches. The Department started new program for undergraduate (B.Tech.) in Chemical Engineering in the year of 2006. Later on, the post-graduation program (M.Sc.) in Chemistry for two years duration was commenced in the year of 2012. More than sixty Ph.D. degrees have been awarded till 2019. At present thirty students are pursuing their research work to attain their doctoral degree. The highly motivated students, who understand the research dynamics and upgrade their skills, are strengthening the department's back bone. In their curriculum they are encouraged to take part in different projects to supplement theoretical knowledge with practical experiences. In order to interact with the outside world, the department has active collaboration with the academic as well as research organizations in India and abroad. The department is organizing Continuous Educational Events like STTP courses, Seminars, and conferences. The curriculum is taught by the distinguished faculty members with the combination of academic excellence and diverse research exposure in working different areas of science and technology with complete dedication and commitment. The research field includes Organic synthesis, Solid state chemistry, Crystal engineering and Nano-materials, Polymers and elastomeric composites, Inorganic Chemistry, Photo-catalysis and Bioinorganic Catalysis, Biophysical Spectroscopy and Photobiology, Chemical Thermodynamics, Resource Recovery and Environmental remediation, Bio-catalysis and Organic Chemo-Sensor, Electro-analytical Chemistry. The faculty members of the department have been awarded various national and international research fellowships. They have also authored many books and participated in national and international conference. The publication of their research works in various SCI index journals are the regular activities of the Department. Many R&D projects are being funded by different funding agencies viz. SERB, DST, MHRD, UGC, BRNS, CSIR, etc. Department has well-equipped laboratories with modern instrumental facilities and has been recognized by DST-FIST Sponsored Department since 2017!

FACULTY MEMBERS

**DR. ANUPAMA KUMAR
(HoD)**
DR. SURESH S. UMARE
DR. JAYANT D. EKHE
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

Recent Publications...

1. "Manganese modified multifunctional carbon material for desulfurization of transportation fuel and CO₂ sequestration" ZakiullahZaidi, **Laxmi Gayatri Sorokhaibam** *Journal of Environmental Engineering*, 2021, 9, 105378.
2. "Magnetic iron nanoparticles (Fe₃O₄) supported on activated carbon as a hybrid adsorbent for desulphurisation of liquid fuels" Mary Louis, Prativa Behera, **Laxmi Gayatri Sorokhaibam** *International Journal of Environmental Analytical Chemistry* 2021, 10.1080/03067319.2021.1897118.
3. "Polyphenols in fruit and vegetable peel extract: procedure of selective extraction and method of analysis" Praful S. Dadhe. Sachin A. Mandavgane, **Anupama Kumar**; (2021); **Biomass Conversion and Biorefinery** <https://doi.org/10.1007/s13399-021-01420-1>.

Patent Filed...

PROCESS FOR ISOLATION AND RECOVERY OF ANTIOXIDANT SUBSTANCES: Anupama Kumar, Sachin A. Mandavgane, Praful S. Dadhe, Ranjita S. Das, Rashmi Rahagude; Application Number- 202121009354, Filing Date-05/03/2021.

Invited Talks...

Prof. Anupama Kumar has delivered a guest lecture on 21st March, 2021, in the Virtual International Conference on New Strategies in Water Treatment and Desalination (NSWTD – 2021) during 21 – 23 March, 2021 organized by Department of Chemical Engineering SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu in association with National Institute of Ocean Technology & Indian Desalination Association (Southern Zone).

Congratulations to the Achievers...

Thesis submitted by **Mr. Keshab M. Bairagi** on January 2021, "Design, Synthesis, Pharmacological Screening of Dihydropyrimidines and their Co-crystals, structure and Liquid crystal study,"

Supervisor: Dr. Susanta K. Nayak.

Following students have qualified GATE 2021:

- Rahul Chakrawarti AIR 4596 (MSc.1st Year)
- Omkar Dash AIR-2007 (MSc.2nd Year)
- Mitesh K. Raul AIR-4496 (MSc.2nd Year)
- Aditya AIR- 2426 (MSc.2nd Year)



Conference Organized...

9th edition of Indian Chitin and Chitosan society symposium, ICCSS-2021 was jointly organized by Department of Chemistry and Department of Chemical Engineering, VNIT Nagpur and ICCS as a part of VNIT's Diamond Jubilee Celebrations during 26th -28th February, 2021 in virtual mode. The objective was the development and promotion of technologies to encourage the R&D and commercial based technologies on the bio-polymers chitin/chitosan countrywide as well as on the international platform in various sectors.

The Organizing chair for the symposium was Dr. S.S. Umare, professor (HAG) in the Department of Chemistry and the conveners for the Symposium were Dr. Anupama Kumar from Chemistry Deptt, Dr. Sachin Mandavgane, Head Chemical engineering deptt. and Dr Srimanta Ray, Head Chemical engineering Deptt, NIT Agartala. The Symposium was inaugurated by Dr. P.M. Padole, Director, VNIT on 26th February, 2021 in the presence of the executive members of the Indian Chitin and Chitosan Society. 18 deliberations under five themes identified for the symposium were given by international and national experts from various reputed Institutes. These deliberations were carried out in five sessions during 26-28 February, 2021. Eighty (80) participants registered for the Symposium across India. 33 abstracts were received for the poster presentations. The valedictory function was held on 28th February, 2021 at 11:15 AM. The chief guest for the occasion was Dr. Dilip R. Peshwe, Dean (FW), VNIT. Twelve prizes were given to the participants for their poster presentation.



WORKING MODEL COMPETITION “Innovative Idea in Science for Societal Application” (IISSA-2021)

Department of Chemistry and Physics, VNIT, Nagpur have successfully conducted the working model competition for UG & PG category students under the theme “Innovative Idea in Science for Societal Application” (IISSA-2021) as proposed in the view of the National science Day of this year, which was jointly organized by Material Research Society of India, Nagpur Chapter & Visvesvaraya National Institute of Technology (VNIT), Nagpur, and supported by TEQIP-III, VNIT, Nagpur. Total 28 teams were participated from various disciplines covering broadly the science category of physics, chemistry and life science all over India. The submitted model videos were evaluated by experts and the winners for this competition were declared in the prize Distribution Function on 12th March 2021, which was conducted

on online platform. Hon'ble Director, VNIT, Nagpur, Prof. Pramod M. Padole, Director of VNIT was presiding along with Prof. Dilip R. Peshwe, Dean (Faculty welfare), was the chief Guest of this prize distribution function, who graced this function with their motivated words and presentation of innovation in science and technology for societal applications. Prof. V. K. Deshpande, convener of this event gave introductory remarks. Dr. J. D. Ekhe (Dean P&D), Professor of Chemistry Department along with Dr. A. Adhare and Dr. S. Bhat were felicitated at the hands of Prof. Padole for evaluating the models of IISSA-2021. Dr. Anupama Kumar, Head Department chemistry and co-convener of this event announced the names of students who got the three prizes and one consolation prize. Ms. Rashmi Rahagude compered the event, and Dr. Susanta K. Nayak, Asst Professor of Chemistry Dept., coordinator of this event proposed a vote of thanks.



Editorial Board

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