Nanomaterials for Water Treatment

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Overview

Water being the elixir for all life on earth and access to quality water still remains a major challenge around the globe. Now a days various Nanomaterials (NMs) are widely used in different fields of application and found in various consumer products. Due to large surface area, modified structure and reactivity, provides them a remarkable physical, chemical and biological properties. Further, NMs are found to effectively inactivate bacteria present in water but still their mechanism has yet to be fully understood.

The course would mainly focus on the various synthesis routes of Nanomaterials, Properties and their Characterization Techniques in detail. Further, NMs interaction in water, transport mechanism will be covered. The final section of the course covers the application of nanomaterials in water and wastewater treatment, role of oxidation process will be discussed in detail. The primary objective of this course are as follows,

- To understand the how NMs behave in different environmental matrices
- Application of NMs in Water Treatment and its advantages over Conventional Process
- NMs based Advanced Oxidation Process and its application in water, wastewater and Industrial waters
- Understand the Risk of having NMs in Environment

Modules	Lectures: 13 hours, Duration: 05 days (14-18 February, 2022)
You Should Attend If…	▪ You are a post-graduate student in any of the following Streams (Civil Engg., Environmental Engg., Chemical Engg., Biochemical Engg., Biotechnology) ▪ You are working as a Research Scholar / Engineer / Research Scientist from government organizations including R&D laboratories and private firms ▪ You are a faculty from academic institution/ Researchers (Engg. /Life Sciences) working in any sectors as long as they are interested in Risk Assessment.
Fees	Fees for the course: • **Participants outside India: US $300** • **Industry/ Research Organizations: Rs. 5,000** • **Academic Institutions (Faculty): Rs. 2,000** • **Academic Institutions (Students & Ph.D. Scholars): Rs. 1,000** The course will be conducted in **online mode** and the number of participants for the course will be limited to hundred
How to register?	Interested candidates can register on the following link: http://gian.iitkgp.ac.in/GREGN/index The payment can be made through NEFT Transfer to the following account details: Beneficiary Name: Director, NIT Andhra Pradesh; Bank: State Bank of India; Branch: Satyavathi Nagar, Tadepalligudem; Beneficiary Account No.: 34999 496394; MICR Code: 534002105; IFS Code: SBIN0016305.

The Faculty

Prof. Hadas Mamane Steindel is the *Head of environmental engineering program at Tel Aviv University. Her research focus is on Photolysis and oxidation of hospital and industrial waste water using ultraviolet (UV)-, photo catalysis- and ozone-based advanced oxidation processes (AOPs), Pretreatment of lignocellulose biomass via AOPs and bioethanol production.*

Dr. Ramsundram N is working as an Associate Professor at Kumaraguru College of Technology Coimbatore.

Dr. Baranidharan S is an Assistant Professor of National Institute of Technology Andhra Pradesh. His research interest includes Fate and Transport of Emerging Contaminants in water and Wastewater.

Course Co-ordinator

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http://nitandhra.ac.in/dept/civil/16914