

About IIT Kharagpur



Kharagpur - a dusty town tucked away in the eastern corner of India, famous until 1950 as home to the longest railway platform in the world - became the nursery where the seed of the IIT system was planted in 1951. IIT Kharagpur started its journey in the old Hijli Detention Camp in Eastern India, where some of the country's great freedom fighters toiled and sacrificed their lives for India's independence. Spurred by the success of IIT Kharagpur, four younger IITs sprouted around the country in the two following decades, and from these five came thousands of IITians, the brand ambassadors of modern India. It was the success of this one institution at Kharagpur that wrote India's technological odyssey.

The Institute takes pride in its relentless effort to provide the best platform for both education as well as research in the areas of science and technology, infrastructure designs, entrepreneurship, law, management, and medical science and technology. IITKGP is not just the place to study technology, it is the place where students are taught to dream about the future of technology and beam across disciplines, making differences enough to change the world.



Program Features/ Structure

Classroom lectures – **70%**

Numerical/Problem solving, Case study and Discussion – **30%**

Program Fee

Nil for TEQIP-III sponsored participants

Professionals from industry, Govt., or other institutions - INR **40,000/-** + GST @18% per participant

For students- INR **5,000/-** per participant

For IIT Kharagpur Students INR **500/-** per participant

Last day of Registration

11

November 2019

Program Schedule and Venue

3 days, 18 – 20 November 2019 (9:30 AM – 5 PM)

IIT Kharagpur –
School of Water Resources

Who will benefit (Eligibility)

Academician, practicing engineers/Govt. officials of related industries/hospitals and UG/PG students (B. Tech./M. Tech./Equivalent)

Accommodation

Accommodation will be provided to the TEQIP-III sponsored participants at the campus Guesthouse. For other participants, the same will be provided on chargeable basis as per rule.

How to Apply

Use the link: <https://erp.iitkgp.ac.in/CEP/courses.htm> to apply ONLINE.



Payment if applicable is to be done **ONLINE** after getting short listed for the program.

Contact Us

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NPIU

TEQIP-KIT

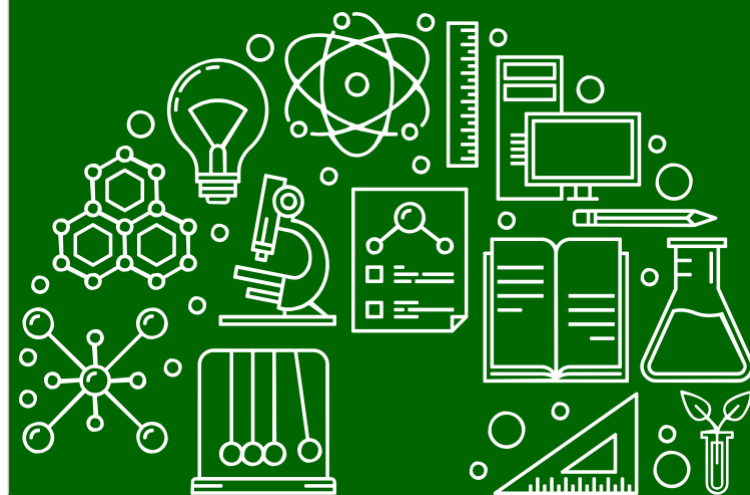
NPIU - A Unit of MHRD, Govt of India for
Implementation of World Bank Assisted Projects in Technical Education

Indian Institute of Technology Kharagpur

ADVANCED WASTEWATER TREATMENT SYSTEM FOR EMERGING CONTAMINANT: SPECIAL EMPHASIS ON HOSPITAL LIQUID WASTE MANAGEMENT

3 days

18-20 November 2019



Introduction / Overview

Emerging contaminants (ECs) are a rising concern in the 21st century because they are ubiquitous in the environment and are pernicious in nature. These contaminants are highly persistent, and the conventional wastewater treatment systems are unable to remove these contaminants. Many pharmaceutically active compounds (PhACs) have been detected in hospital effluents because of their increased use and improper disposal techniques. Various ECs from different groups of PhACs like antibiotics, analgesics, β -blockers, estrogens have been detected in hospital effluents. Other parameters like COD, TSS, TKN, phosphorous and heavy metals present in hospital effluents make it even more difficult to be treated. Various technologies including anodic oxidation, photocatalysis, Fenton based processes, membrane techniques, etc. have been developed to remove these ECs from the water. However, the treatment of emerging contaminants especially in Hospital Liquid Waste is a challenging area in wastewater management. The course aims to highlight from the basics of the treatment system to the issues and concern for the application of the treatment in the Indian context.

Program Objectives

The main objectives of the course are as follows:

- To device a conceptual development on basic of wastewater management mostly advanced treatment systems
- To demonstrate the issues and challenges of emerging contaminant (mostly PhACs) and hospital liquid waste
- To generate a vision of applications of treatment plant concerning the hospital liquid waste management

What you will learn

Program Content

- Introduction to Wastewater Management in Indian Cities: Issues and Challenges
- General outline of Wastewater Treatment System
- Advanced Wastewater Treatment
- Emerging Contaminant: Occurrence, and impact
- Treatment of emerging contaminant: A brief overview
- Hospital Liquid Waste Management in India: Status and Stress
- Case Studies on treatment of Hospital Liquid Waste Management System

About the Faculty Principal Co-ordinator

Dr. Partha Sarathi Ghosal

Dr. Partha Sarathi Ghosal is an Assistant Professor in the School of Water Resources, Indian Institute of Technology Kharagpur and he has a long experience in water sector. His research contribution mostly focused on the fundamental and applied research in the field of environmental engineering, such as various theoretical developments on environmental modeling, optimization and mathematical formulations, water and wastewater treatment, etc. He has a vast experience in planning and execution of various water and wastewater projects and he was also a part of several research and field based technical projects of national and international importance. His research highlights are listed in the published book chapter, patent (filed) and publications in the international journal of high repute.

Co-Coordinator

Dr. Ashok Kumar Gupta

Dr. Ashok Kumar Gupta is a Distinguished Scientist and renowned Professor in the field of Environmental Science and Engineering. He has remarkable contributions to the fundamental and applied research specifically in technology development, theoretical formulation, field-based projects, etc. His research is highlighted in the published book, several book chapters, patents and many publications in highly impactful international journals with more than 5000 citations. He has executed 42 completed/ongoing field-based scientific projects of national and international importance. The outcome and recommendation of those projects have been implemented in many areas across the country, defining a remarkable scientific and societal impact.

