

# Workshop on Sustainable Wastewater Management: The Role of Advanced Treatment and Sensing Technologies

01 - 02 December 2023

Department of Civil and Environmental Engineering INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI



Plastic Fibre Corporation (PFC)



SWAN Scientific LLP, Hvderabad

#### **ABOUT OUR INSTITUTE & DEPARTMENT**

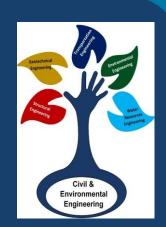


Prof. K.N.
Satyanarayana
Director, HTT

The Indian Institute of Technology Tirupati (IIT Tirupati), established in 2015, is an autonomous Institute under Ministry of Education, Government of India. The Government of Andhra Pradesh is nurturing Tirupati as knowledge hub of the State.

The Department of Civil and Environmental Engineering is one of the earliest departments, which was set up in 2015 within the Institute. The Department offers numerous courses at the undergraduate and postgraduate level to introduce students to academic research and themes relevant to the civil engineering industry.

<u>OUR VISION</u>: To achieve excellence in pedagogy and research relevant to the natural environment as well as sustainable and resilient infrastructure, with a focus on quality-of-life initiatives of national and international importance.



## **ABOUT THE WORKSHOP**

This Workshop will address the innovative treatment options for wastewater. A dialogue concerning potential future directions for the wastewater profession is initiated by identifying principal challenges. It is an excellent opportunity for attendees to get the latest information on challenges and innovations for wastewater treatment, both current and longer term, and interact with professionals and experts from the eminent and prestigious IITs, and Government Authorities.

This Workshop will have a specific focus on sources of wastewater and their potential differences, sensors developed, conventional, and emerging treatment technologies, design of a potential wastewater treatment plant, sensors developed, and socio-economic, impacts, and opportunities. It will feature a great mixture of both academics and industry leaders, discussing the challenges, and innovations related to this topic, but also on other current challenges faced by the water sector.

## FOCUS OF WORKSHOP

- A. Wastewater Sources; and their Characterization and Significance
- B. Conventional vs Efficient Novel Wastewater Treatment Technologies
- C. Wastewater to Energy Conversion, Resource Recovery and Safe Reuse
- D. Wastewater Treatment Plant Design Aspects: Digitalization Approach (Software, Modelling, and Sensors)
- E. Nanotechnology Intervention in Wastewater Treatment
- F. Wastewater: Environmental/Social Footprint: Scope and Opportunities

# IMPORTANT DATES

### Workshop date:

1 - 2 December, 2023

#### **Registration deadline:**

15 November, 2023

Registration Link: Google form

# **REGISTRATION FEE**

PARTICIPANTS	FEE (includes Food & Accommodation till 6 PM of Day - 2)
Students/Startups/ Scholars	Rs. 1,500/-
Faculty/Industry/ Working professionals	Rs. 5,000/-

#### **WORKSHOP HIGHLIGHTS**

- ✓ Opportunity to network and forge alliances with the brightest minds from Government entities, NGOs, and Corporations.
- ✓ Hands-on experience and Interactive
  Workshop addressing the technical
  challenges faced by innovators in the water
  and wastewater.
- ✓ Site visit and showcasing Wastewater Recycling Technologies at IIT Tirupati (visit to two wastewater treatment plants in IIT Tirupati) (DAY 2). Detailed explanation on Recycling and Reuse of Treated Wastewater for various purposes.

Student co-ordinators contact details:

- 1) Puttamreddy Sivasai <u>ce23d505@iittp.ac.in</u> <u>Mobile</u>: +91 9032976692
- 2) K. Shravani ce23m103@iittp.ac.in



A) Wastewater Sources; and their Characterization and Significance B) Conventional vs Efficient Novel Wastewater Treatment Technologies



Prof. Brajesh Kumar Dubey
Professor, IIT Kharagpur,
Dept. of Civil Engineering
Topics covered:
Wastewater to Energy Conversion,
Resource Recovery and Safe Reuse



Prof. Bhanu Prakash Vellanki Professor, IIT Roorkee, Dept. of Civil Engineering <u>Topics covered</u>: Wastewater Treatment Plant Design Aspects: Digitalization Approach (Software, Modelling, and Sensors)

**OUR SPEAKERS** 

**Dr. Narendra Singh**Assistant Professor, IIT Tirupati, Dept. of Chemical Engineering

<u>Topics covered:</u>
Nanotechnology Intervention in
Wastewater Treatment



**Dr. Shihabudheen M. Maliyekkal**Assistant Professor, IIT Tirupati, Dept. of Civil & Environmental Engineering Topics covered:

Wastewater: Environmental/Social Footprint: Scope and Opportunities



**Dr. Narasamma Nippatlapalli**Assistant professor, IIT Tirupati, Dept. of Civil & Environmental Engineering

PROGRAM CONVENER nippatlapallice@iittp.ac.in

