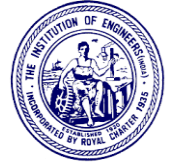




Engineering Staff College of India

Autonomous Organ of The Institution of Engineers (India)

Old Bombay Road, Gachi Bowli, Hyderabad – 500 032, Telangana, India



Environment Management Division

CONTINUING PROFESSIONAL DEVELOPMENT PROGRAMME

Recycle and Reuse of Treated Wastewater, Resource Recovery, and Energy Recovery from Biological Sludge of STPs

27-29 October 2026

Interactive Sessions | Digital Learning | Assessments | 24/7 Experts Online/Offline Support

Introduction

Rapid urbanization and growing water demand are placing increasing pressure on India's freshwater resources, while the generation of urban wastewater continues to rise. This makes wastewater recycling, reuse and resource recovery essential for achieving water security and sustainable urban development.

As per the CPCB National Inventory of Sewage Treatment Plants, 2021, urban India generated about 72,368 MLD of sewage, against an installed treatment capacity of 31,841 MLD, with only 20,235 MLD actually utilized. With sewage generation expected to increase substantially in the coming decades, there is an urgent need to move beyond the conventional "treat and discharge" approach towards "treat, recycle, reuse and recover."

India's urban development programmes are increasingly aligned with this Circular Economy approach. AMRUT 2.0 places circular water management at the centre of its objectives by promoting conservation of water sources, reuse of treated used water and rainwater harvesting, with a reform focus on meeting 20% of water demand through recycled water. MoHUA's framework on Circular Economy in Municipal Solid and Liquid Waste also emphasizes mainstreaming wastewater recycling and reuse, strengthening STPs and developing State-level policies and business models for treated wastewater reuse. The approach is closely aligned with Sustainable Development Goal 6 (Clean Water and Sanitation), particularly SDG 6.3 on improving water quality and increasing safe wastewater treatment, recycling and reuse, and SDG 6.4 on increasing water-use efficiency and ensuring sustainable freshwater supplies. The emerging focus is therefore not merely on treating wastewater, but on converting STPs into resource recovery facilities, where treated water, nutrients, biogas and energy can be recovered and beneficially utilized. Recovery of energy from biological sludge through anaerobic digestion and biogas utilization can further improve resource efficiency, energy efficiency and the environmental performance of STPs.

Against this backdrop, the Environment Management Division (EMD), Engineering Staff College of India (ESCI) proposes a focused three-day Training Programme on "Recycle and Reuse of Treated Wastewater, Resource Recovery and Energy Recovery from Biological Sludge of STPs."

Objectives

The programme aims to enhance participants' understanding of Circular Economy and Circular Water Management through recycling and safe reuse of treated wastewater, resource recovery and energy recovery from biological sludge. It will provide practical insights into SDG 6, AMRUT 2.0, SBM-U 2.0, CPCB guidelines, sustainable STP management, resource efficiency and emerging Indian and global best practices, supported by practical site visits..

(An ISO 9001:2015 Certified, AICTE & CEA Recognized Institution)

Centre for Promotion of Professional Excellence

Course Coverage

- Circular Economy & Circular Water Management
- SDG 6 and Sustainable Urban Water Management
- India's Policy Framework – AMRUT 2.0, SBM-U 2.0 & CPCB Guidelines
- Recycle and Reuse of Treated Wastewater
- Tertiary and Advanced Wastewater Treatment Technologies
- Resource Recovery from Wastewater & Biological Sludge
- Nutrient Recovery and Circular Sanitation
- Sustainable Sludge Management & Beneficial Utilization
- Water–Energy–Nutrient Nexus
- Economics, Financing & Business Models for Wastewater Reuse
- Indian & Global Case Studies and Best Practices
- Practical Site Visits – STP, Wastewater Reuse & Resource/Energy Recovery Facilities

Methodology

Methodology of the programme includes classroom sessions with Lectures/discussions, with audio visual aid; bench - marked video shows, Chalk & Talk sessions, group discussions, case studies, debates, sharing of experiences, etc. All the sessions will be interactive, demanding active participation from all the participants.

Target Participants

This course is useful for engineers and managers working in the areas of project formulation including Environment and Forest clearances in Public and Private Sectors, Government Departments (undertaking Development Projects), Regulatory Boards, Consultancy firms, R&D & Educational Institutions, NGOs etc. Engineers & Executives involved in Water Pollution Monitoring and Modelling from different sectors can also attend the programme.

Programme Dates, Code & Timings

Dates: 27-29 October 2026 & **Timings:** 10:00 AM onwards at ESCI campus, Gachibowli, Hyderabad.

Course Director

Ms. Anita Aggarwal

Faculty & Head I/c.

Environment Management Division,

Phone: Direct 040 6630 4120, 4122; Fax: 040-66304163

Mob: 8374362306; Email: em@escihyd.org

Faculty/Speaker Details

Apart from the core internal faculty, Experienced Professionals/Faculties/Sector experts will be delivering the lively lecture with practical knowledge & case study.

Course Fee

- **Course Fee** – Rs. 18,000/-* (Rupees Eighteen Thousand Five Hundred only) per participant. Fee (Residential) includes course material, course kit, twin-sharing/single AC accommodation as per availability, breakfast, lunch, dinner, tea / coffee and snacks during the actual days of training programme. ESCI provides complimentary accommodation and boarding to the participants one day before commencement (Check-in 1200 h) and one day after conclusion (Check-out 1200 h) of the programme duration. Overstay charges will be applicable as per ESCI rules (subject to availability of accommodation).
- **Non-Residential Fee:** 10% discount on course fee is allowed for non-residential participants.
- **Group Incentive:** 10% discount for five or more participants, if sponsored by the same Organization.

*GST @18% is to be paid extra over and above the training fee. **PAN Card No. AAATT3439Q. GST No: 36AAATT3439Q1ZV**, HS No.: 999293 (under commercial training or coaching services – clause 65(105) (ZZC) of Finance act – 1994).

(An ISO 9001:2015 Certified, AICTE & CEA Recognized Institution)

Centre for Promotion of Professional Excellence

Programme fee is to be paid in in favour of “**THE INSTITUTION OF ENGINEERS (INDIA) – ENGINEERING STAFF COLLEGE OF INDIA**” in the form of demand draft payable at Hyderabad. Alternatively the payment may be made by **Electronic Fund Transfer (EFT)** to ESCI – **SB A/c No. 10007111201 with The SBI, PBB, Rajbhavan Road Branch, Khairatabad, Hyderabad-500004 by NEFT/ RTGS. IFSC Code No. SBIN 0004159 – MICR No.500002075. PAN Card No AAATT3439Q; GSTIN No. 36AAATT3439Q1ZV**. While using EFT method of payment, please ensure to communicate us your company name, Contact details, our invoice reference and programme title. **Kindly provide your organization GSTIN and TAN No. along with your nominations**

Registration

Online registration shall be available on ESCI web portal : www.escihyd.org

To register manually please send your nominations giving details of name, designation, contact address, email address, mobile no, telephone and fax number of the participant along with the details of mode of payment of fee, addressed to: **Course Director** (or) Contact us at: Mr. GNM. Rao (Prog. Manager) – 9866431555.

A Certificate of participation will be awarded to each participant on conclusion of the programme.

Environment Management, Engineering Staff College of India

Gachi Bowli, Hyderabad – Telangana 500 032

Phone: 040 – 66304120, 66304122, Fax: 040 – 66304163

Email: em@escihyd.org, web portal: www.escihyd.org

(An ISO 9001:2015 Certified, AICTE & CEA Recognized Institution)

Centre for Promotion of Professional Excellence