Introduction

Safe water supply and hygienic sanitation facilities are the two basic essential amenities the community needs on a top priority for healthy living. As about 80% of water used by the community comes out of houses in the form of waste water which, unless properly collected, conveyed, treated and safely disposed of, may eventually pollute our precious water resources and cause environmental degradation. Hygienic sanitation facilities through low cost on – site sanitation, conventional sewerage and sewage treatment are very important. As of now, as per Central Public Health & Environmental Engineering Organization (CPHEEO) manual on sewerage and sewage system, about 45% of urban population has been provided with reasonable hygienic sanitation facilities in our country.

Underground sewerage systems for the cities make very valuable contribution to the process of sustainable urban development. Good sewerage system will protect the environment; improve the community health and the quality of life. For proper design, operation and maintenance of sewerage systems, basic knowledge on planning, estimation of wastewater generation, flow characteristics, design principles of sewers, treatment and disposal methods are very essential. It is the social and civic responsibility of all the authorities to fulfil their obligations to maintain good health and hygiene conditions of the cities and towns.

In order to achieve this, we need to make sure that our professionals are well aware and enhanced with the design and estimation to improve the performance of the infrastructure that sustains our economy, environment and Water Supply & Sewerage Projects. Participants will have Hands-on Experience in designing and estimating the Sewerage Network System.

Objectives

The five -days Course aims to enhance the subject knowledge, skills and attitude of the engineers working in Design, Operation and Maintenance of Underground Sewerage Systems. It covers advancements and emerging technologies

Course Coverage

- Basic principles of Sanitation
- CPHEEO Manual Guidelines - Operation & Maintenance on Sewerage Network System
- Fundamentals of biological wastewater treatment, influent and effluent standards
- Basics of wastewater treatment technologies (Conventional/ DEWATS / FSTPs) and effluent discharge standards
- Selection of appropriate technology in sanitation–Network type and Wastewater Treatment Technologies
- O&M of Underground Sewerage Network System and STPs
- Trouble shooting in the O&M
- PPP Models
- Performance evaluation of STP
- Field visit to STPs (different technologies like Phytoremediation, CAMUS, MBBR, SBR etc. depending on availability)
- Each session is covered with Practice Sessions, case studies and group discussion
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
Engineers/ Managers / Commissioners at all levels working in Metropolitan Water Supply & Sewerage Boards, Public Health Engineering Departments, Municipal Corporations, Municipal Administration Departments, Urban Development Authorities, Industrial Townships, Industrial Development Corporations, Consultancy Organizations, Implementing agencies and self interested professionals / individuals.

Programme Dates, Code & Timings
Dates: 01 - 05 July 2024, (EM 6090) / Timings: 10 AM Onwards.

Course Director
Ms. Anita Aggarwal
Faculty & Head I/c.
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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** (Residential) – Rs. 25,000/- (Rupees Twenty Five Thousand only) per participant. Fee 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 and above the training fee as training. PAN Card No. AAATT3439Q. GST No: 36AAATT3439Q1ZV, HS No.: 999293 (under commercial training or coaching services – clause 65(105) (ZZC) of Finance act – 1994).

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 No. along with your nominations.**

Registration
**Online registration** shall be available on ESCI web portal: [www.escihyd.org](http://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.