

# **Engineering Staff College of India**

Autonomous Organ of The Institution of Engineers (India)
Old Bombay Road, Gachi Bowli, Hyderabad – 500 032. Telangana, India



## **Centre for Climate Change Division**

**Continuing Professional Development Programme** 

Application of Bio-Engineering Technologies for Wastewater Treatment in Drains, and Canals

07 - 09 August 2024

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

#### Introduction

Water is the most basic and most essential compound of all living processes in our water planet. Wherever people live, waste products are produced as a result of their activities. These can be solid, liquid or gaseous and may substantially affect the health either directly (e.g. by pathogens, odour nuisance, unaesthetic appearance, etc) or they may cause major damage to natural resources through soil, water and air. By definition, bioremediation is the use of living organisms, primarily microorganisms, to degrade the environmental contaminants into less toxic forms, it uses naturally occurring bacteria and fungi or plants to degrade or to detoxify substances hazardous to human health, aquatic and terrestrial life and/or environment. The study is aimed to treat sewage flowing in open drains by application of especially developed microbial consortium—a bioremediation method. The objective of the study is that sewage may be stabilized in drains thereby giving relief to the citizens from exposure of obnoxious harmful gases and unhygienic situations which prevail in the vicinity of open drains, and to reduce concentration of water polluting parameters like biochemical oxygen demand, chemical oxygen demand, total dissolved solids, total suspended solids including odour control.

### **Objectives**

The Objective of this programme is to update the knowledge of the participants on Application of Bio-Engineering Technologies for Waste Water Treatment in Nalas, Drains and Canals.

#### **Course Coverage**

This programme is designed to cover broadly the following topics:

- Introduction to Bio-Engineering Technologies
- ♣ Biological Processes for Wastewater Treatment
- Monitoring and Maintenance of Bio-Engineering Systems
- Case Studies and visit STP
- Future Trends and Research Directions

#### 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**

The programme is intended for professionals working in Municipal Corporations, State Pollution Control Boards, Central Pollution Control Board, CSIR Labs & R&D Departments, Environment Consultants, Engineers working in Govt. & Private sectors.

#### **Programme Dates, Timings & Code**

Dates: 7 - 9 August 2024, Timings: 10 AM Onwards. & Code: 8049

**Course Director** 

Dr. K. Chandrakala Faculty, Centre for Climate Change Mr. Aadhi Naresh, Jr. Faculty, CCC

**Engineering Staff College of India,** 

Phone: Direct 040 6630 4164, Fax: 040 - 6630 4163, Mob: 8019438539 Email: ccc@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 (Residential): Rs. 16,000/- (Rupees Sixteen 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 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).

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.

#### 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.