



Engineering Staff College of India

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



POWER & ENERGY DIVISION

Continuing Professional Development Programme on
**Best Practices of O&M of DM Water Plants in
Power Plants & Process Industry**

21 - 23 May, 2019



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

Centre for Promotion of Professional Excellence

INTRODUCTION

Demineralized Water (DM Water) constitutes a vital process fluid in power plants and process industry. While DM Water is used as energy transfer medium in the form of steam in power plants, it is extensively used as an important process fluid in various process industry. Every steam based power plant and process plant typically set up a dedicated DM Water Plant which supplies DM water of required quality & quantity. DM Water is produced majorly through ion-exchange process which removes most of the cations (Na^+ , X^+ , Ca^{++} , Mg^{++} , Fe^{++} , M_n^{++} etc.) and anions (Cl^- , NO_3^- , SO_4^{--} , CO_3^{--} , HCO_3^-) from water, which otherwise contribute significantly to scaling corrosion, fouling of equipments. Quality of DM Water is, therefore, crucial for proper functioning of power plants & process industry as any impurity ingress into DM Water will adversely affect the plant performance and also the equipment life in long run. Proper operation & maintenance of DM Water Plants, therefore, contributes a great deal to overall functioning of power plants and process industry that adopt DM Water Plants. This programme takes the participants through various aspects of DM Water Plants, water chemistry including pre-treatment steps, principles of ion-exchange, design & selection of ion-exchange resins (WAC, SAC, WBA, SBA) regeneration aspects, mixed ion-exchange beds, failing of resins and their treatment remedies, etc. The programme also describes issues & challenges, remedies and the best practices followed in O&M of DM Water Plants serviced in power plants and process industry.

OBJECTIVE

The objective of the programme is sensitize the participants with basics of DM water production activities, and best practices of O&M of DM water plants.

COURSE COVERAGE

- Importance of DM Water Chemistry in Power Plants & Process Industry
- Water treatment steps prior to DM Water Plant
- Issues related to DM Water Chemistry upsets viz. scaling / corrosion / fouling
- Basics of Ion-exchange process including selection of ion-exchange
- Best practices of O&M of DM Water Plants
- Case studies.

METHODOLOGY

The programme will be conducted in an interactive environment providing greater scope for discussions. Emphasis will be on a highly participative style of learning. The classrooms are provided with latest audio – visual teaching aids. The ambience in the campus and classrooms facilitate in effective learning by participants.

FACULTY

Apart from Core Internal Faculty, Consulting Firms, Government Organisations, Manufacturing, Academic and Research Institutions etc. will share the sessions.

TARGET PARTICIPANTS

Middle to senior level executives / managers associated with Power Plants and process industry including Fertilizer, Chemical, Petrochemical, Pharma, Atomic Energy related to operation / production functions.

COURSE DIRECTOR

B Prahlad

Advisor - Power & Energy Division, ESCI

PROGRAMME VENUE, DATES & TIMINGS

Engineering Staff College of India (ESCI) Campus, Old Bombay Road, Gachi Bowli, Hyderabad - 500032, TS, India.

DATES

21 – 23 May, 2019

TIMINGS

On the first day registration will commence at 0900 Hrs. On all other days the programme timings will be from 0945 to 1715 hrs with breaks in between for tea and lunch.

ACCOMMODATION

A.C. Accommodation will be provided to the participants located within ESCI Campus. The accommodation will be on twin sharing basis / single based on availability.

COURSE FEE

Residential Fee is Rs. 15,000/- per participant. Fee includes Course Material, Course Kit, Accommodation, Breakfast, Lunch, Dinner, Tea / Coffee and Snacks.

DISCOUNTS

Non-Residential Fee: 10% discount on course fee is allowed for non-residential participants.

Group Discount: 10% discount for three or more participants if sponsored by the same organization.

(All discounts are applicable only if fee is received at ESCI a week before the commencement of the programme)

GST @18% (as applicable) is to be paid extra over and above the training fee. ESCI's **Provisional ID No. 36AAATT3439Q1ZV, PAN Card No. AAATT3439Q.**

The course fee is to be paid in favour of **“IE (I) – 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. 33705165550** with The SBI, Manikonda Branch, Gachi Bowli, Hyderabad – 500 032 by **NEFT / RTGS / IFSC Code No: SBIN0011076 – MICR No: 500002107.** While using EFT method of payment, please ensure to communicate us your company name, ESCI invoice reference and programme title.

Online registration is available on ESCI website. To register, manually please send your nominations (**10 days** prior to date of commencement of the programme) giving details of name, designation, contact address, email address, mobile number, telephone and fax number of the participant along with the details of mode of payment of fee, addressed to:

Head, Power & Energy Division

Engineering Staff College of India

Gachi Bowli, Hyderabad – 500 032, T.S.

Phone : 040 – 6630 4170 to 4177; 040-6630 4100, Fax : 040-66304103

Email : pe.esci@gmail.com / pe@escihyd.org; Website : www.escihyd.org

CERTIFICATE : A certificate of participation will be awarded to each participant on conclusion of the programme.

GENERAL INSTRUCTIONS

- ESCI encourages participants to present case studies from their respective organizations.
- For the convenience of the outstation participants ESCI will facilitate pickup and drop from Airport / Railway Station / Bus Stations, if travel plans are received at least 3 days in advance along with mobile number by fax or email. The charges shall be paid by the participants directly to the cab driver.

- ESCI provides complimentary accommodation to participants a day prior to the commencement and after the conclusion of the programme. (Check in at 12:00hrs a day prior to the commencement & check out at 12:00hrs a day after completion of the programme)
- Overstay charges of @ Rs.990/- per day / per head including hospitality (Bed Tea / Coffee to Dinner) will be charged.
- Well developed Information Centre and Internet facilities are available to the participants free of cost.