

# **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**

Classroom Continuing Professional Development Programme on

# **Transmission Line Construction**

(Survey, Design of lines and construction practices)

21 -24 August, 2023

at ESCI, Hyderabad





(An IMS Certified (ISO 9001:2015 QMS, ISO 14000:2015 Envtl. Mgmt., ISO 45001:2018 (OH&SM), ISO 50001:2018 EnM), AICTE & CEA Recognized Institution)

Centre for Promotion of Professional Excellence

#### INTRODUCTION

In the past 2 decades, after the reforms have been introduced, growth of power sector has been phenomenal comprehension of Design, survey and construction of EHV Transmission Projects is important for improving the transmission efficiency in the power utilities. The basic knowledge of design, survey & construction of tower lines for execution of line projects is very much essential for the project executors and O&M engineers of utilities in view of stringent norms of national grid.

#### **OBJECTIVE**

This course aims at providing inputs related to survey, design and construction practices of Transmission lines to the practicing engineers working in transmission companies. In this perspective, this course has been designed to provide essential knowledge in these areas.

#### **COURSE COVERAGE**

- Preliminary survey of new lines, Modern Surveying techniques incl Digital surveying like PLSCADD etc, Route Fixing. Detailed Survey incl different types of spans and different types Towers & their standards.
- Preparation of ground profile, Tower spotting using Sag Template, line profile, Tower schedule.
- Check survey, Bi-section & Dead end concepts, Pit marking, Stub setting using SST& Props.
- Laying of Foundations, Revetments
- Introduction to design features of EHV towers.
- Tower erection, checking of correctness of erected Tower, different Tower earthing practices.
- Transmission line materials, their standards and specifications, Types of conductors, HTLS conductors, different types of hardwares for conductors & earth wire.
- Paving techniques of conductors, Rough sag and final stringing of conductors & earthwire, stringing charts.
- RoW issues, Statutory requirements & Clearances for EHV lines.
- Statutory inspection of line, Testing & Commissioning of lines, different types of stringings.
- Monopole design & erection technologies
- ERS towers, 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, Domain Experts from various Power Utilities.shall share their experience, besides, eminent engineers and specialists from manufacturing industries, R&D institutes, Consulting Firms and Academia.

#### TARGET PARTICIPANTS

Junior and Middle Management of the Transmission Utilities of Government and Private Sector Companies.

## PROGRAMME VENUE, DATES & TIMINGS

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

#### **DATES**

21 - 24 August, 2023

#### **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**

Participants will be accommodated in our Executive Hostel located within ESCI Campus. The accommodation will be on twin sharing basis.

## COURSE DIRECTOR

## Er. U. Vidyasagar

Sr. Faculty & HOD - Power & Energy Division, ESCI (Mob:8179559990)

#### **COURSE FEE**

**Residential Fee** is Rs.22,000/- per participant. Residential fee includes Course Material, Course Kit, and Twin-sharing / Single AC accommodation as per availability, 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. ESCl's **GST 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 – Current 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

Phone: 040-6630 4170 to 4176; 040-6630 4173 / 4176, Fax: 040 - 23000336, 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 participants shall pay the charges 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 12:00 hrs a day prior to the commencement & check out at 12:00 hrs a day after completion of the programme)
- Overstay charges of @ Rs.990/- per day / per head (Food will be charged extra).
- Well developed Information Centre and Internet facilities are available to the participants free of cost.