



# 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* **Power Cables Selection, Testing, Laying and Commissioning**

14 – 18 October, 2019



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

**Centre for Promotion of Professional Excellence**

## **INTRODUCTION**

With rapid development of urban power networks, ensuring reliability of power supply and meeting the load demand in heavily populated cities has become a challenging task. Higher concentrated load in these areas demands higher quantum of power and the use of overhead transmission systems face serious challenges by way of right of way problems, safety considerations aesthetics having impact on the scenic beauty of the cities. This places a special demand on underground cables for providing reliable power supply. Smart cities programme prepared by the Govt. of India proposed to replace the existing over headlines in the selected cities with cable system.

Technologies used in the manufacture of cables have also evolved from the paper insulated and PVC cables to the Present day XLPE cables which are regarded as far superior to the earlier generations. Presently under ground cables are available from 11 KV to 400 KV and selection of these cables requires suitable choice in the manufacture, laying, maintenance and protection.

System strengthening works in urban areas are contemplated in a large way to bring down losses by way of erection of additional substations with cable networks under R-APDRP schemes prompted. ESCI to consider it appropriate to design a 5 day course on this subject.

## **OBJECTIVE**

The objective of the course is to provide adequate knowledge to the engineers working in Thermal, Hydro, GIS, Transmission and Distribution areas to provide knowledge on proper selection of cables and also the procedural details in laying of cables, cable jointing and termination. Location of cable faults and use of fault locators will also be covered in the course.

## **COURSE COVERAGE**

- Introduction to Power Cables
- Manufacture of XLPE Cables
- Standards for Cables
- Cable Layout and System Design
- Cable Jointing Kits - Different Types Jointing and End Terminations
- Testing Cables and Jointing.
- Cable Faults & Fault Locators, Condition Monitoring of Cables
- Field Visit to see Cable Laying & Jointing.
- International Experience in Laying of EHV Cables – DVD - 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, Academic and Research Institutions etc. will share the sessions.

## **TARGET PARTICIPANTS**

Senior Officers of Power Utilities / Corporations / SEB's, Thermal, Hydro, GIS Substations and Distribution Companies, Nodal Agencies, Energy Planners, Private Entrepreneurs, Manufacturers, Industries, Research / Academic Institutions, Construction Companies etc.

## **PROGRAMME VENUE, DATES & TIMINGS**

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

## **DATES**

**14 – 18 October, 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**

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

## **COURSE DIRECTOR**

**A Chandra Mohana Rao**

Head & Sr. Faculty - Power & Energy Division, ESCI

## **COURSE ADVISOR**

**A Ramakoteswar Rao**

Former Head Power & Energy Division, ESCI

Retd. Sr Chief General Manager, APTRANSCO

## **COURSE FEE**

**Residential Fee** is Rs.25,000/- (Residential) 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. 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

Phone: 040– 66304170 - 4177, 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 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 12:00 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 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.