



# Engineering Staff College of India

Autonomous Organ of The Institution of Engineers (India)

Old Bombay Road, Gachi Bowli, Hyderabad – 500 032. TS, India

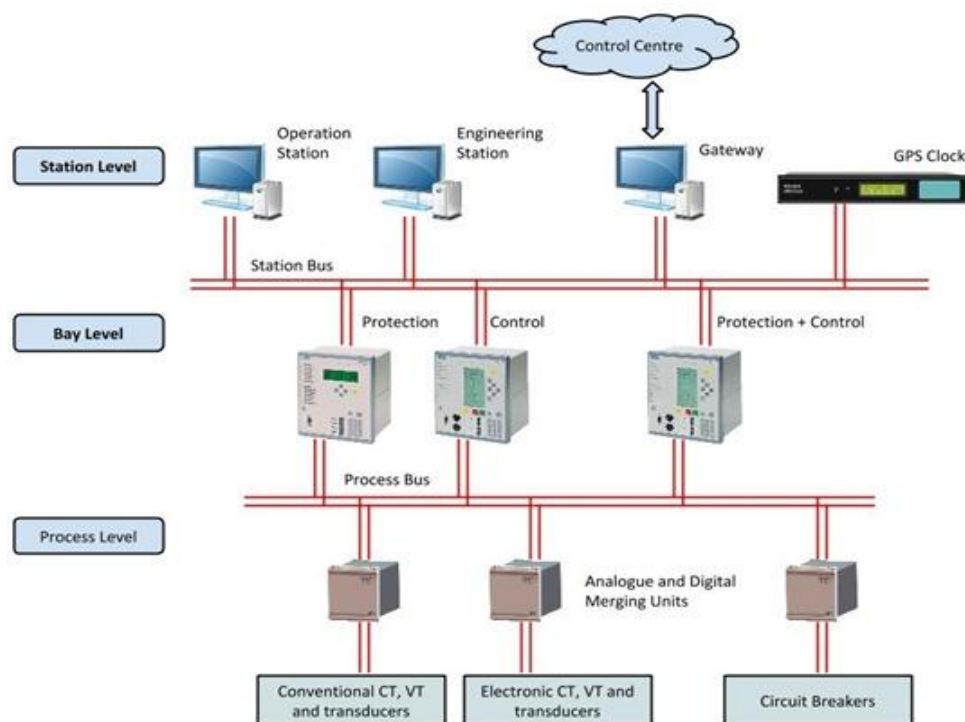


## POWER & ENERGY DIVISION

*Continuing Professional Development Programme on*

# Renovation and Integration of Substation with Digital Electronics

20 – 23 February, 2018



(An ISO 9001:2008 Certified, AICTE & CEA Recognized Institution)

Centre for Promotion of Professional Excellence

## **INTRODUCTION**

India is on the threshold of high economic growth and the continues initiatives in the infrastructure sector including power are driving it on a higher growth trajectory. India has seen a phenomenal growth in the installed capacity, and EHV substations played a dominant role in controlling, monitoring and protecting the power transfer over long distances.

With introduction of SAS with digital electronics have reap jumped to new standard in communications and IEC 61850 (communication in networks) is the front runner in place of old control cables and electro-mechanical relays.

Under the scenario, Renovation and Modernisation of old substations assumes significant as a faster and cost effective option to bridge the demand supply gap.

## **OBJECTIVE**

- Use of old substations with modern digital communication technology
- Introduction of SAS + digital control technology with numerical relays
- Improved operations, reduced breakdowns, self-healing and contion monitoring of SS.

## **COURSE COVERAGE**

- Transformer Manufacturing process and quality
- Circuit breaker monitoring system for EHV CBS
- FACTS – Technologies, Series capacitor – upgrading transmission line loading capacity
- Retrofitting and upgradation of age old EHV sub-stations and EHV transmission lines
- 3D Finite Element Analysis Approach for combined Instrument transformer insulation system design and product validation on 400KV resource test setup.
- Retrofitting of SS and futuristic EHV GIS solution
- Retrofitting of existing transmission lines with HTLS conductor to upgrade capacity – a Case study
- Field retrofit of on-line monitoring systems in old transformers
- Modern trends in power system protection for improving PS stability.
- Digital substations – Introduction to SAS

## **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 faculty will act as provocateurs and resource persons and demonstrate application oriented studies, in a professional manner.

## **FACULTY**

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

## **TARGET PARTICIPANTS**

Engineers from Generation, Transmission Utilities, Engineering College Teaching Staff and Consultants and Project Engineers.

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

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

## **DATES**

**20 – 23 February, 2018**

## **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.

## **COURSE DIRECTOR**

**A Chandra Mohana Rao**

Senior Faculty & Head I/c - Power & Energy Division, ESCI

## **COURSE FEE**

**Residential Fee** is Rs.20,000/- per participant. 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. 10007111201** with The SBI, PBB Rajbhavan Road Branch, Khairatabad, Hyderabad – 500 004 by **NEFT / RTGS / IFSC Code No: SBIN 0004159 – MICR No: 500002075.** While using EFT method of payment, please ensure to communicate us your company name, ESCI invoice reference and programme title.

## **REGISTRATION**

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 4177; 040-6630 4100, 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.