

# **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

# Smart Meter Integration - PMU Asset Management in T&D Utilities 22 - 25 October, 2024

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

"Optimize asset utilization and operate efficiently"- Smart Grids: Power systems are experiencing fundamental change in the way they are managed, driven by the changing energy landscape and growing demand for electricity. Increasing volumes of renewables coupled with reducing inertia and more sensitive voltage profiles are creating more complex issues for system operators.

The high-resolution data from PMUs support analytics such as condition-based monitoring, applying dynamic ratings to distribution assets, and predictive analytics on equipment failures. Wide-scale deployment of these technologies will support the development of new analytics to build a framework for the future of asset management across the utility industry. Considering all these changes, the future of asset management will move away from time-based "broad brush" and, at times, reactive practices of the past and, instead, use the information made available through these advanced monitoring capabilities to proactively address issues based on asset performance and condition, and take a risk-based approach to optimize investment. To encourage this transition, it is important that utilities invest in building their systems and asset monitoring capabilities, and also in data analytics and "smarts" that turn this data into usable and invaluable information to inform this proactive decision-making process.

## **OBJECTIVE**

The objective of this course is to provide deep insight in to the concept of Smart Meters Integration – PMU Asset Management in Transmission & Distribution Utilities. Modernizing today's grid to smart grid, gain the advantages of Smart Meters and to provide quality, reliable power supply to consumers of all categories.

## **COURSE COVERAGE**

- Introduction to Smart Grids
- Implementation of Supervisory Control & Data Acquisition (SCADA) in Transmission & Distribution Utilities
- Distribution Management System- GIS, SCADA, CIS, EIS, AMI, OMS, DA, CVR, CBM, Work Force Management, Distribution Planning Tools, Advanced Network Applications
- Smart Meters Key Components & their functions, Standards, Testing & Calibration, Data exchange, Role of Advanced Metering Infrastructure (AMI) in reducing AT&C losses
- Latest Trends and Recent Developments in Smart Meters & Smart Grids Technologies
- Meter Data Management System (MDMS)
- AMI System components design and Integration mapping of Components
- AMI System design for Different Communication Technologies & Various issues and effective design aspects for technological mapping of AMI system.
- Phasor Monitoring Unit ( PMU)
- Wide Area Measurement System(WAMS)
- Predictive Management of Assets, Asset Management Standards- ISO55001

#### **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 Organizations, Manufacturing, Academic and Research Institutions etc. will share the sessions.

#### **TARGET PARTICIPANTS**

Power Engineers and Managers from Power Utilities both Private and Public, Organizations connected with Transmission and Distribution.

## PROGRAMME VENUE, DATES & TIMINGS

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

#### **DATES**

22 - 25 October, 2024

#### **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. Vidya Sagar Ubba, FIE

Head & Sr. Faculty - 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. 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 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, (Food will be charged extra).
- Well developed Information Centre and Internet facilities are available to the participants free of cost.