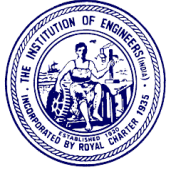




Engineering Staff College of India

Autonomous Organ of The Institution of Engineers (India)
Old Bombay Road, Gachibowli, Hyderabad – 500 032. Telangana, India



POWER & ENERGY DIVISION

Continuing Professional Development Programme on Solar Energy Storage Battery Maintenance and Related Issues (On-Line Course)



21 – 23 August, 2024

From 11:30 to 17:15 hrs (4 Hours 30 Minutes per day)

Online Interactive Sessions | Digital Learning | Experts Online Support

Introduction

Solar Power is the conversion of energy from sunlight into electricity, either directly using photovoltaics (PV), indirectly using concentrated solar power or combination technologies. Concentrated solar power systems use lenses or mirrors and solar tracking systems to focus a large area of sunlight into a small beam. Photovoltaic cells convert light into an electric current using the photovoltaic effect. Many industrialized nations have installed significant solar power capacity into their grids to supplement or provide an alternative to conventional energy sources while an increasing number of under developed nations have turned to solar to reduce dependence on expensive imported fuels, long distance transmission coupled with fossil fuel consumption is displaced with remote renewable energy resources. Solar power plants use either of two technologies:

- Photovoltaic (PV) systems use solar panels, either on rooftops or Ground-mounted solar farms, converting sunlight directly into electric power.
- Concentrated solar power (CSP also known as "concentrated solar thermal") plants use solar thermal energy to make steam thereafter converted into electricity by a steam turbine.

In this regard, ESCI has launched a 3 (half days) Course on Solar PV Power Plants Design & Installation, to encourage the Engineer online training for up skilling.

Objectives

This course describes latest energy conversion technologies used in solar power generation and associated storage options.

- Understand the best practices of Solar PV Power Plants and their key features
- Breakup of the capital costs comparison of solar storage power plant with other modes
- Identify opportunities and risks for grid connected energy storage projects

Course Coverage

- Solar PV basics & Characteristics
- Basic Design of Solar PV Power Plant
- Present Energy Storage System in Global and Indian Market
- Latest Energy Storage Systems -Types & Features
- Classification of EES (Electrical Energy Storage) - Mechanical & Electrical and Electro-Chemical Energy Storages - Electrical & Thermal Storage Systems including Green Hydrogen Technology
- Standards & Technical comparison of EES
- Technical comparison of EES Technologies – On-grid / Off-grid solutions
- Peak load management & Demand Side Management (DSM)
- Benefits of storage and managing peak loads
- Market of EES – Lead Acid Batteries, Lithium Batteries
- Materials and methods of manufacturing, Challenges and Risks of Lead Acid Batteries & Lithium Batteries

(An ISO 9001:2015, ISO 14000:2015, ISO/TEC 17025:2017, ISO 45001:2018, ISO 50001:2018 Certified, AICTE & CEA
Recognized Institution)

Centre for Promotion of Professional Excellence

Methodology

Methodology of the programme includes Digital Learning through LMS Platform, Interactive sessions with audio visual aid, discussions, sharing of experiences etc,. Online course will be conducted through Cisco Webex App.

Target Participants

Junior and Middle level executives working in power utilities such as Assistant Engineers, Asst. Executive Engineers and Their Equipments cadets.

Benefits to the participants

- Capacity building with Knowledge sharing from well experienced domain specialist.
- Reading material will be emailed to all participants who have registered.
- A Certificate of participation will be awarded to each participant on conclusion of the programme.

Programme Dates & Timings

Dates: 21 – 23 August, 2024 (4 Hours 30 Minutes per day)

Online Session timings will be from 1130 to 1715 hrs with breaks in between for tea and lunch.

Programme Director

Er. Vidya Sagar Ubba, FIE

(Former CGM, TSSPDCL)

Head & Sr. Faculty – Power & Energy Division

(Mob:8179559990)

Course Fee

₹ 9, 000/- Plus 18% GST= Rs.10, 620/-per participant

Group Discount : 10% discount for three (3) 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)

ESCI's **GST No: 36AAATT3439Q1ZV PAN Card No. AAATT3439Q**

The payment may be made by Electronic Fund Transfer (EFT) to ESCI – Current A/c No. 33705165550 with The SBI, Manikonda Branch, GachiBowli, 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 and programme title.**

Registration

Online registration shall be available on ESCI web portal : www.escihyd.org

To register manually please send your nominations giving details of name, designation, contact address, email address, mobile no, telephone and fax number of the participant along with the details of mode of payment of fee, addressed to : pe.esci@gmail.com / pe@escihyd.org

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