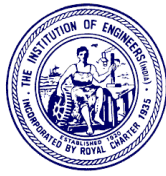




# Engineering Staff College of India

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*

## Hydro Turbines, Governing & its Protection Systems

**11 – 14 September, 2023**

at ESCI, Hyderabad



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

**Centre for Promotion of Professional Excellence**

## INTRODUCTION

Good numbers of hydro power stations in the country are in service over long years. To ensure better reliability and continuity of service of these plants, it is necessary to assess their life through testing. Life of various equipment in the station such as Generators, Turbines and Exciters is to be properly assessed and retrofit is to be taken up considering the technological developments and options available. In view of the advantages available, due to adoption of state of art technologies, we need to go in for adopting these technologies effectively and efficiently.

The operation of hydro station is presently mostly automatic and unattended operation of power station is becoming popular. The best practices for a hydro turbine governor address this technology, condition assessment, operation and maintenance. Unit objectives are to maximize performance and reliability of generating station. The hydro power plant governor is to control the turbine servomotors to adjust to flow of water of turbine regulating unit speed and power. Hence operation & maintenance of hydro governor will directly impact the reliability of hydro unit.

## OBJECTIVE

Realizing the importance of the subject, Engineering Staff College of India (ESCI) thought it fit to conduct a programme on “**Hydro Turbines, Governing and its Protection Systems**” to cover the areas relating to governing, operation, maintenance and assessment studies to expose the participants to the latest developments in these vital areas.

## COURSE COVERAGE

- Need and Development of Governing System for Hydro Power Plant
- Component & Functions, Type of Governing Systems, Electro Hydraulic, Electronic & Digital Governing
- Station Automation
- Digital Excitation System & AVR's
- O&M of Governing Systems and Trouble shooting
- Concept of Protection Systems
- Hydro Power Plant Protection & Limits
- Best Practices in O&M & 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 Organizations, Manufacturing, Academic and Research Institutions etc. will share the sessions.

## TARGET PARTICIPANTS

Engineers / Executives / Managers of Power Utilities – Gencos / Mini Hydro Units / CPPs / IPPs / Hydro Power Corporations / SEBs' / Private Power Hydro Generating Units.

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

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

### **DATES**

**11- 14 September, 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**

**Dr. V. Vidyasagar**

Sr. Faculty - Power & Energy Division, ESCI  
(Mob: 9421801203)

### **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. 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 – 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 INFORMATION**

- 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, 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.