

One day Webinar
on

“Latest trends in Energy Metering Technologies and
Calibration”

December 28, 2022



आयोजक / Organised By



Metering and Utility Automation Division (MUAD)
केंद्रीय विद्युत अनुसंधान संस्थान / Central Power Research Institute
(भारत सरकार की सोसाइटी, विद्युत मंत्रालय) / Govt. of India Society, Ministry of Power
प्रोफेसर सर सी. वी. रामन रोड, पो बा सं: 8066 / Prof Sir C V Raman Road, P.B.No: 8066
सदाशिवनगर डाकघर / Sadashivanagar Post Office,
बेंगलूरु / Bengaluru 560 080, कर्नाटक, भारत / Karnataka, India
वेब / Web: www.cpri.res.in

About the Online Webinar:

Utilities are being replaced by smart meters. The accurate measurement of energy are becoming extremely important both for the consumers and energy service providers at all levels of modern power systems. The meter data form the basis for O&M, planning, load and Loss analysis etc. With advent of smart meters the utilization through analytical tools is more helpful to utilities. Hence, this webinar is organized to discuss following topics for the benefit of all stake holders with the aim of sharing the latest trends in energy metering technology aspects.

The following topics will be covered in the webinar:

- **Smart Metering Technology**
- **DLMS/COSEM Protocol testing**
- **Communication Systems for AMI**
- **Standards for Smart Meters**
- **Performance Evaluation of Smart Meters**
- **Calibration of reference standard energy meters**
- **Site Calibration of AC and DC Smart Meters for EVs**
- **Cybersecurity issues in Smart meters**

Pre-requisites

The Participant should have good internet connection and good quality headphone/speaker set with Laptop/Desktop. The participant should also have notepad/pen to note down important points.

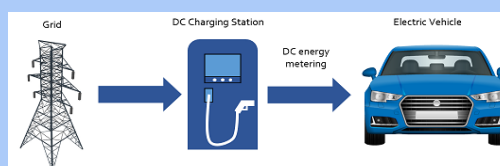
Who should attend?

The webinar is aimed at Engineers, Managers responsible for the operation and maintenance of Renewable Energy Systems, Distribution Systems, Transco's, DisCOM's, Transmission & Distribution Designers, Planners, Consultants, Officers of Power Utilities/Corporations, State Govt./SEBs, Substation Managers, Substation Engineers, System operators, Substation Designers, Policy makers, Entrepreneurs, Energy Planners, Renewable Energy Providers, Private Entrepreneurs, Manufacturers, Research/Academic Institutions and Financial Institutions, etc.

Registration

Sl. no	Institutions	Fee per person per day
1	State Power utilities/Government agencies	
	up to 5 participants	Rs 1500+GST
	5-10 participants	Rs 1300+GST
	10-30 participants	Rs 1200+GST
2	Private Sector organizations	
	up to 5 participants	Rs 2000+GST
	5-10 participants	Rs 1500+GST
	10-30 participants	Rs 1200+GST
3	Students of educational institutions	Rs 500+GST
4	Faculty Members of educational institutions	Rs 1000+GST

*GST is 18% extra



Registration form, a part of this brochure, complete in all respect shall be sent to the webinar Coordinator along with the registration fee and participants from international may transfer the fee via Swift code No.: SBININBB425, SBI A/C No. 10270577483, and participant from National may transfer fee to SBI A/C No.10356553310, IFSC code: SBIN0002215. Beneficiary Name: SBI, IISc Branch, Bangalore under intimation to the webinar coordinators.

Kindly use separate form for each participant, Downloaded/ Photo copies of Registration form are acceptable.

The Registration fee includes training material-soft copy and digitally signed Electronic/Soft Copy certificate will be provide to the participants.

Metering and Utility Automation Division (MUAD)

The division is equipped with state-of-the-art technology instrumentation to cater the needs of testing and calibration services to customers from India & abroad at the following laboratories.

- Energy Meter Testing Laboratory (EMTL)
- Metering Protocol Laboratory (MPL)
- Calibration Laboratory

Energy Meter testing laboratory caters the services for various customers in Type test, Acceptance test, Tamper test and additional tests as per tender specification of utilities. CPRI has established a comprehensive test facility for Energy Meters at Bangalore and Bhopal. Both laboratories are equipped with State of Art Technology which complies with the requirements of National & International Standards and conforms to ISO/IEC 17025:2017 standard. CPRI has also established Energy Meter Testing lab at Noida.

Metering Protocol Laboratory renders DLMS/COSEM Protocol testing for Static Energy Meters/Smart Meters. By using latest version of Conformance Test Tool - CTT and Functional Evaluation Tool - FET both Static Energy Meters and Smart Meters are verified for their compliance to DLMS/COSEM (IEC 62056) protocol requirements and for their Parameter verification respectively. Also lab conducts communicability tests for Smart Meters. Both the above laboratories are recognized by Bureau of Indian Standards.

The Calibration laboratory is accredited by NABL as per ISO/IEC 17025:2017 standard for both at lab and at site. The calibration laboratory is equipped with high precision Energy Comparator of 0.01 class accuracy to calibrate reference energy meter up to 0.02 class accuracy. The laboratory has facility to calibrate Power source, reference standard energy meter, multi-function meter and power analyzer.



CPRI'S Profile

Central Power Research Institute (CPRI) set up 1960 by the Government of India, functions as a National organization for applied research in power sector and also serves as an Independent Laboratory for testing and certification of power equipment. CPRI is a member of STI (Short Circuit Testing Liaison) of Europe and is accredited by M/s ASTA of UK. CPRI also provides consultancy services on various facets of power sector. CPRI has expertise in the area of Simulation, Diagnostics, System Analysis and Testing. CPRI laboratories have modern equipment needed for Power system simulation, Short circuit testing, Diagnostics of equipment, Materials engineering, Seismic qualification etc. CPRI has experienced faculty in different subjects concerned to power sector with practical experience in their areas of interest, as well as extensive experience in presenting courses/seminars.

Over the period, CPRI officers have gained lot of practical knowledge concerning to testing and operational problems of the industry. CPRI is a leading provider of Training and Continuing Education to Utilities, PSUs across the country for the past 60 years. CPRI is continually setting new standards in training and continuing education from basic theoretical information to practical hands-on electrical equipment training. CPRI courses have made substantial impact on the level of training and education to India's electricity utilities, manufacturing companies, transmission and distribution companies. By upgrading the occupational skill of technical workers, CPRI training courses have improved the career path of many electrical personnel as well as contributed to an improvement in electricity efficiency, plant productivity, electrical system reliability an overall competitiveness of Indian industry.

Registration form shall be sent by E-mail to
Smt S.Sudha, Joint Director
Mobile: +91 96118 43364, Email: sudha@cpri.in
Metering and Utility Automation Division
Central Power Research Institute
(A Govt of India Society, Ministry of Power)
Prof Sir C V Raman Road, P.B.No: 8066, Bangalore 560 080, Karnataka, India
Phone: 080 2207 2090
www.cpri.res.in
Webinar Organiser cum Faculty



Smt S.Sudha, Joint Director, is working in Metering and Utility Automation Division (MUAD) of CPRI. She has graduated in B.E Electrical from R.V.College of Engineering, Bangalore. She started her career as Engineering Officer Grade1 in CPRI. She has 24 years of experience in the field of Energy Meter testing as per IS & IEC Standards, Calibration of Reference standard Energy Meters and other measuring instruments. She has conducted pre dispatch inspection on Test Benches and Reference Standard Meters at manufacturer's premises abroad. Having experience in both testing and calibration she has conducted many workshops on Metering technology, Calibration and measurement uncertainty. She has also provided consultancy services to state electric city boards & Third Party Inspection at various manufacturer's premises on behalf of power utilities. Her areas of interest are Smart Grid, Smart Metering and Power Quality calibration.