



Virtual Training on

Sub – Station Automation

Date: 21st – 22nd September 2021 Timing: 15:00 IST (2 Hours)

Keynote Speakers



Rajil Srivastava

Former Chairman CIGRE NSC B3 &
Chief General Manager
POWERGRID



Nihar Raj

Chairman CIGRE NSC B3 &
Vice President (O&M)
Adani Transmission



N. Murugesan

Former Director General
Central Power Research Institute
Bangalore, India

Key Faculty

Topics to be Covered

- Historical Evolution of Substation Automation Systems (SASs)
- Emerging Communication Technologies and Communication Standards
- IEC Standard 61850 (Communication Networks and Systems for Power Utility Automation), IEEE Standard 802.3 (Ethernet)
- Main Functions of Substation Automation Systems and Impact of the IEC 61850 Standard on SAS Projects
- Switchyard Level, Equipment and Interfaces
- Bay Level: Components and Incident Factors , Station Level: Facilities and Functions
- System Functionalities, System Inputs and Outputs. System Engineering, Overall System Engineering
- Communication with the Remote Control Center. Communication Pathway, Brief on Digital Communication
- The OSI Reference Model, The IEC Enhanced Performance Architecture Model. Provisions for Extensibility in Future. Cyber-Security Considerations, SAS Performance Requirements
- Tests on SAS Components. Type Tests, Basic Characteristics Tests, Functional Tests, Acceptance Tests. Tests for Checking the Compliance with the Standard IEC 61850
- Factory Acceptance Tests, Test Arrangement, System Simulator, Hardware Description, Software Identification, Checking System Features
- Checking Basic Features, Checking Reports Screens. Checking Time Synchronization Facilities, Checking of Self-Supervision Functions. Checking Redundant Functionalities , Planned Testing Program for FAT
- System Behaviour in an Avalanche Condition. Tests on the Communication Link for Technical Service
- Non-structured FATs, After FATs. Commissioning Process, Hardware Description, Software Identification
- Training Strategies for Power Utilities. Project-Related Training, Station Level Module, Bay Level Module, Process Level Module
- Planning and Development of SAS Projects, System Specification. Contracting Process, Quality Management for SAS Projects. Quality in Component Capabilities and Manufacturing
- SAS Engineering Process According to Standard IEC 61850. Future Technological Trends, Toward the Full Digital Substation
- Unconventional Instrument Transformers. Process Bus as Defined by IEC 61850–9-2
- New Testing Strategies on SAS Schemes. Wide Area Control and Monitoring Based on the IEC/TR 61850–90–5 .Integration of IEC 61850 Principles into Innovative Smart Grid Solutions

Background

Central Board of Irrigation & Power (CBIP) a premier Institution, setup by GOI in 1927 is serving the nation in the disciplines of Power, Renewable Energy and Water Resources Sectors for more than 94 years.

It is an exchange and knowledge bank for dissemination of technical knowledge & professional experience to help Engineers/ Professionals to update their knowledge and gain practical know-how.

Unique Features of Online Trainings

- Training with high safety of participant's as no travel & travel related cost is involved.
- Expert's Panel discussions within participants.
- Learning and working balance as our sessions are planned for 2 hours per day.
- Well proven online platform with high cyber security.
- Live message chat, live voice chat, polls and quiz.
- Real time engagement.
- E-Certificates to the participants.

Objective

- To disseminate technical knowledge through various modes, e.g., publication of technical documents, organizing conferences /workshops.
- To provide specialized training to the professionals in the Power, Renewable Energy and Water Resources Sectors.

Address For Correspondence

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Sponsorship Opportunity

Platinum Sponsor: Rs. 50,000/-	Gold Sponsor: Rs. 30,000/-	Silver sponsor – Rs. 20,000/-
Free Login for the event: for Platinum Sponsor - up to 10 nos.	Free Login for the event: for Gold Sponsor - up to 5 nos.	Free Login for the event: for Silver Sponsor - up to 3 nos.
Speaking Slot : 10 minutes	-	-
Full visibility & wider publicity: through display of logo on the Brochure for email marketing for the virtual event, on the banner for display during the event, on the websites of CBIP/CIGRE-India.		
Sharing of data of participants: to have a chance to connect with new customers for business exposure.		
Coverage/ Publicity in Key Journal: i.e. Water & Energy Intl. Journal, which has a circulation of 10,000 to focused professionals & stakeholders.		
A4 size advt. for printing in monthly W&E Intl. journal (Special Position) single issue	A4 size advt. for printing in monthly W&E Intl. journal (Inside) single issue	-

Facilitation Charges

The duration of the online training will be of 2 days (2 hrs. on each day) out of which 1hr 30 minutes will be for technical session followed by 30 minutes for question/ answer session.

Login fee for the participants is as follows:

Members*	Rs. 3,000/- per participant
(CBIP, CIGRE & AARO)	
Non Members	Rs. 3,600/- per participant
Students	Rs. 750/- per student

Note: 18% GST extra

The program is limited to 200 participants, which will be on First cum First serve basis.

*CPSUs, PSUs, Centre & State Utilities, Regulatory Commission, Research Institution and Key Pvt. Sector organization are member of CBIP.

To Register

The perspective participants, desirous of attending the above event may register themselves by sending the following details to CBIP along with necessary payments:

Title of event, Name, Designation, Organization, Mailing address and Phone / Fax/E-mail

Payments of facilitation charges should be made by bank transfer and cheque at par/Demand Draft drawn in favour of "Central Board of Irrigation and Power", payable at New Delhi.

Account Details for Online Payment

Account No.	00031110004411
Account Name	Central Board of Irrigation and Power
Bank Name	HDFC Bank, 209-214, Kailash Building, 26, K.G. Marg, New Delhi 110001
IFS Code	HDFC0000003
MICR No.	110240001
Swift Code	HDFCINBBDEL
GST No.	07AAAJC0237F1ZU

Note: Registered participants will get link 1 day prior to the event.