

Tutorial (Physical Mode) on IEC 61850 based Substation Automation System

Date: 13th – 14th January 2022 (Thursday & Friday)

Venue : CBIP Center of Excellence, Plot no. 21, Sector-32, Gurugram



Special Attraction for Participants
Visit of Protection Automation & Control Lab at POWERGRID, Manesar

Eminent Speakers



Sanjay Patki
Ex. Chairman CIGRE NSC
Protection & Automation
Former VP-Tata Power



B N De Bhowmick
Independent Consultant
Former Executive Director
POWERGRID



M.V. Girish
Technology Manager
Grid Automation
Hitachi Energy



N.M. Sheth
Executive Engineer
Engineering
GETCO



C.P. Awasthi
DGM
POWERGRID



Ritesh Kumar
Manager
POWERGRID



Yashwant Kodali
Manager
POWERGRID

Organized by



ANNOUNCEMENT

The Central Board of Irrigation and Power (CBIP), a premier institution, was constituted in 1927 by the GoI. It is serving the Nation in the disciplines of Water Resources, Power and Renewable Energy Sectors for more than 94 years.

The main objective of CBIP is dissemination of technical knowledge through various modes, such as :

- Organizing National and International Conferences, Symposiums, Seminars and Workshops, training programme etc.
- Publication of technical documents e.g., manuals, technical reports, guidelines and journals etc
- To provide information about technological developments to the engineers/professionals and other stake holders
- Collection, compilation & analysis of technical data at national as well as global level

The Central Board of Irrigation & Power has planned to organize Tutorial on 'IEC 61850 based Substation Automation System' on 13-14 January, 2022 at CBIP Center of Excellence, Gurugram.

AIM & OBJECTIVE OF THE TUTORIAL

The IEC 61850 series of international standards for communication in the substations, brought a new era in the development of Substation Automation. It affects not just the design of the substation protection, monitoring and control system, but also the design of the substation secondary circuits. The High-speed peer-to-peer communication using GOOSE messages, and Sampled Analogue Values (SAV), allow development of distributed applications, based on the equipment status, current and voltage values communicated between the devices connected to the substation local area network.

IEC 61850 has been applied to Substation Automation System (SAS) in India since almost a decade, and it has gained wide acceptance at the station bus level. The interoperability between the protective IEDs from different vendors within the substation has become a necessity in order to achieve the requisite substation level interlocking, protection and control functions, and to improve the efficiency / utilization of the microprocessor-based relay applications, improve life cycle cost and overall performance. Also, appropriate adoption of the technology makes our substation smarter and more flexible which is the need of the modern era.

Substation automation technology is experiencing a paradigm shift towards full Digital substations based on IEC 61850 9-2 LE process bus. These changes are generating significant interest from industry stake holders looking to long term benefits. Also, there are continuous developments in IEC 61850 standard towards Edition 2.0, Edition 2.1 etc. along with references to other domain standards of Networking, Time synchronization and Communication aspects. For better adoption of these technologies, there is a need for learning and rescaling of present domain skills with more focused approach towards Digitalization.

Considering various advantages of IEC 61850 based Substation Automation System (SAS), technological advancements and future needs, CBIP has planned to organize Tutorial on "IEC 61850 based Substation Automation System". The aim of the tutorial is to deliberation the latest trends & innovation on the subject.

TOPICS

Topics to be covered but not limited to:

- Digitization and Automation in Indian Power Grid - An Overview
- IEC 61850 Process Bus based Digital Substation Implementation in POWERGRID
- Facility Overview & Demonstration of Online Testing of Protection scheme in a Process Bus based Digital substation
- Overview of IEC 61850 standard
- IEC 61850 based SAS Implementation experience at GETCO

PRESENTATIONS BY EXPERTS

Shri S.G. Patki, Former VP, Tata Power & Ex-Chairman of CIGRE NSC B5 on Protection and Automation and Shri B.N. De Bhowmick, Former Executive Director, POWERGRID besides the eminent experts from organizations like Gujarat Energy Transmission Corporation Ltd. (GETCO), Power Grid Corporation India Ltd., Hitachi Energy India Limited (Formerly known as ABB Power Products and Systems India Limited) have consented to make presentations during the Tutorial.

WHO SHOULD ATTEND

The tutorial will be of special interest to:

- Planners, Independent power producers, Operators, Consultants, Electrical Contractors
- Researchers / Academicians, Manufacturers, Power Utilities / Corporations, State Govt. / SEBs, etc.

DATE AND VENUE

The tutorial will be held on 13-14 January, 2022 at CBIP Center of Excellence, Gurugram.

The tutorial timings will be 10.00 AM to 5.30 PM on both the days. The registration will start at 9.00 AM on 13th January 2022.

REGISTRATION FEE

All those who wish to participate in the tutorial are expected to register in advance by sending the details through email to the organizers along with payment of registration fee as indicated under:

1. Non – Member fee is Rs. 10,000/- per participant
2. Discounted fee for members of CBIP is Rs. 8,000/- per participant
3. Special Discounted fee for students is Rs. 2,500/- per student

GST @ 18% shall be charged extra GST No. 07AAAJC0237F1ZU

The Registration fee covers the registration kit, tea/coffee/lunch during the tutorial and to & fro travel by bus from Venue to Protection Automation & Control Lab at POWERGRID, Manesar. The tutorial is non-residential. Participants will have to make their own arrangements for travel, boarding and lodging etc.

All payments be made through cheque at par in favour of 'Central Board of Irrigation & Power', payable at Delhi or amount deposited/ transferred to HDFC Bank, CBIP A/c no. 00031110004411, MICR No. 110240001, Swift Code : HDFCINBBDEL, IFSC: HDFC 0000003, Address: 209-214, Kailash Building, 26 Kasturba Gandhi Marg, New Delhi – 110001

SPONSORSHIP OPPORTUNITIES

The Tutorial provides an effective opportunity for sponsoring companies to promote their products/services to a focused audience, besides networking with engineers of utility, manufacturers and academic institutions during tea/coffee and lunch intervals. Sponsors are assured of full visibility with printing of their names on proceedings; Main banner and other publicity material related to tutorial and will have the privilege of distribution of their product's pamphlets/catalogues during the event. Sponsors will also have the privilege of sending delegates exempted from payment of registration fee as indicated hereunder:

Category of Sponsorship	Fee in Rs.	Free Delegates in the Tutorial	Free Advertisement in the proceeding
Platinum	3,00,000	10	1 pages
Gold	2,00,000	5	Half page
Silver	1,00,000	2	-

For further details, please contact the Event Secretariat.

EVENT SECRETARIAT

Shri A.K. Dinkar, Secretary, CBIP

Shri Sanjeev Singh, Director, CBIP

Central Board of Irrigation and Power, Malcha Marg, Chanakyapuri, New Delhi - 110021

Phone : 011-26115984/2687 6229/2688 0557 Fax: :011-2611 6347

Contact Person

Vishan Dutt, Chief Manager, CBIP - M: 9811431554

E-mail : vishandutt@cbip.org Website : www.cbip.org

S.K. Batra, Consultant, CBIP

M: 9811943812, E-mail: batra@cbip.org

Tutorial on IEC 61850 based Substation Automation System

13th – 14th January 2022

CBIP Center of Excellence, Gurugram

REGISTRATION FORM

(To be filled in block letters preferably)

1. Name : _____
2. Position : _____
3. Organization : _____
4. Address : _____
5. Phone : _____ Fax No. _____
6. Email : _____

Dated _____

Signature _____

Details/ Amount of Registration fee Paid:

All payments should be made by cheque at par/Demand Draft drawn in favour of "Central Board of Irrigation and Power", payable at New Delhi OR by transfer the amount to HDFC Bank, Address: 209-214, Kailash Building, 26 Kasturba Gandhi Marg, New Delhi 110001; Saving Bank Account No. : 00031110004411; Swift Code: HDFCINBBDEL; IFSC: HDFC 0000003; MICR Code: 110240001. (GST No. 07AAAJC0237F1ZU).

Registration Form, duly filled in, is to be mailed to the following address:

Shri A.K. Dinkar

Secretary, Central Board of Irrigation and Power, Malcha Marg, Chanakyapuri, New Delhi 110 021, India
Tel: 91-11-26115984/26116567 Fax: 91-11-26116347

E-mail: vishandutt@cbip.org; Batra@cbip.org Web-site: <http://www.cbip.org>

Note:

- Photocopies of the registration form can be used for additional requirements, if any.
- Spot registration facilities will also be available, provided the prior information is received.

ABOUT SPEAKER

Sanjay Patki, Ex. Chairman CIGRE NSC B5 on Protection & Automation

He was Former Vice President with Tata Power, Mumbai, He has 42 years of experience in various Roles in Generation, Transmission, Distribution and Technical Services.

Sh. Patki has contributed several Technical Papers in National and International conferences and participated in several committees/working groups at national and international level. He was Chairman of CIGRE India committee on Protection and Automation and chaired the expert group of CBIP for preparing the Manual on Power system Protection and Automation. He was awarded by CIGRE, Paris as Distinguished Member.

N.M. Sheth, Executive Engineer (Engineering) Gujarat Energy Transmission Corporation Limited

He is working in GETCO since 1994. His initial experience is in the field of Substation Operation & Maintenance as well as Commissioning for almost a decade. Presently working in Engineering department and responsible for Design & Engineering of Control, Protection, Automation, schemes & Philosophies, Digital substation, Secondary engineering as well as RE integration related domains. Has gained rich experience of on and around 60 substations with IEC 61850 based SAS (AIS, GIS, Hybrid switchgear) including Greenfield as well as Brown field projects. Pioneer in optimum utilization of IEC 61850 technology features including GOOSE based logics & protection applications. Headed lead role in pilot projects of Digital bays and pioneer in articulation of GETCO's first Digital substation 220/66 kV Sevaliya. He has presented several technical papers at various national and international conferences on domain fields of "Relay Protection", "Substation Automation" & "Digital Substation". He is the member of i) Substation Automation Expert Group of CBIP and Cigre India, ii) Cigre NSC B5, iii) BIS Relay committee ETD 35.

C.P. Awasthi, Deputy General Manager, Power Grid Corporation of India Limited

He is working as DGM in Technology Development department, POWERGRID Corporation of India Ltd. he having experience of more than 16 years in the field of testing & commissioning of IEC 61850 based control, protection and automation systems at various substations across India. Has commissioned the pilot project on Process Bus in POWERGRID and associated in resolution of various engineering and implementation issues of IEC 61850 systems. He was also involved in design, engineering, testing and commissioning of the commercial IEC 61850 Process Bus based Full Digital Substation implementation.

Ritesh Kumar, Manager, Power Grid Corporation of India Limited

He is working as Manager in Technology Development department, POWERGRID. Has been involved in the implementation of pilot project on IEC 61850 process bus in POWERGRID and also in the design and engineering of IEC 61850 Process Bus based Full Digital 400/220 kV Malerkotla substation. He has been actively working on testing in IEC 61850 based systems, especially online testing in Process Bus based systems. He has also been a lead faculty for workshops and training programs conducted on IEC 61850 at the POWERGRID Academy of Leadership.

Yashwant Kodali, Manager, Power Grid Corporation of India Limited

He has received his M.S. (by Research) degree from IIT Madras in 2014. His area of research during M.S was IEC 61850 based Substation Automation Systems. He joined POWERGRID in January 2014 and is presently working as Manager in Technology Development department. He has been involved in design; engineering and commissioning of POWERGRID's IEC 61850 based Full Digital Substation. He has been working primarily at POWERGRID's Protection Automation & Control Laboratory (PAC Lab) since last three years on aspects of IEC 61850 communication networks, time synchronization and testing of digital substations.

M.V. Girish, Technology Manager – Grid Automation, Hitachi Energy India Limited (Formerly known as ABB Power Products and Systems India Limited)

He has more than 25 years of experience in the fields; R&D, engineering, testing and commissioning of Control, Protection and Automation systems for transmission and distribution substations. He has extensive knowledge and experience of IEC 61850 based Substation Automation Systems and he is instrumental in its implementation in many parts of the world. He has authored/co-authored several technical papers presented at National & International forums.