

# IEC-61850 TRAINING

-24 to 26 August'09

## IEC-61850 Applied To Substation Automation:

- A 3-day comprehensive seminar plus training workshop on IEC61850 standards for Substation Automation
- This training will cover the theoretical aspects behind IEC-61850 by reviewing the salient standards of IEC-61850 and supplement it with demonstrations of 61850 communications between clients and servers, IED-to-IED communications using GOOSE messages, the philosophy of inter-operable engineering and configuration using Substation Configuration Language with demonstration of 61850 engineering tools like SCL Manager etc.
- The training workshop is designed so as to provide valuable knowledge on 61850 standards to power utilities and personnel involved with the implementation and commissioning of substation automation solutions using IEC-61850

## Training Schedule:

IEC-61850 Protocol, Utilities and Tools Training				
	Day 1	Day 2	Day 3	
09:00 - 10:45	Overview of IEC61850 - Introduction to the specs - History of IEC61850 - 61850-Basics	61850 Specification Review - 7-2 ACSI LN Class Model Data Class Model Data Sets, Control Class	61850 Specification Review - 7-3 CDC Common Data Attribute Types Common Data Classes - 7-4 LN Compatible LN & Data classes	
10:45 - 11:00	Break	Break	Break	
11:00 - 12:30	Introduction to Substation Configuration Language(SCL) - ICD - SSD - SCD - CID	61850 Specification Review - 7-2 ACSI Goose and GSSE. Logging and Reporting Sampled Value Transmission File Transfer	61850 Specification Review - 8-1,9-1,9-2 SCSM Communication Stack Station bus and Process bus Mapping to MMS Mapping of Goose and GSE	
12:30 - 13:30	Lunch	Lunch	Lunch	
13:30 - 15:00	SCL Manager Demonstration - Create S/S Specification >SSD - Create IED ICD files - Import ICDs into S/S Spec - Configure S/S > SCD	MMS Protocol -Variable Access Model -MMS Journaling model -Device Description -MMS and IEC Standardization	Substation Connectivity - Substation to Control Center - Wrapping non-61850 IEDs/RTUs - Demonstration of Kalki Substation Gateway	
15:00 - 15:15	Break	Break	Break	
15:15 - 17:00	61850 Specification Review - 7-2 ACSI -Server ClassModel -Logical Device Class Model	Client/Server Demo using - SISCO AX-S4 MMS OPC Server - Kalkitech 61850 Simulation Server - Ethereal Packet sniffer	Advances in related technologies - CIM (IEC-61970) - PMU/PDC (C37.118) - Security	

## Who Can Attend?

The course is intended but not limited to engineers and technicians involved in installing, configuring, maintaining or operating substation automation and control systems, using the IEC 61850 standard.

- Utility Engineers
- System Integrators
- OEMs
- Maintenance Staffs
- Consultants
- Substation Automation
- System Designers

## Registration Details:

<b>Intake</b>	15 Participants only
<b>Workshop Fee</b>	The workshop fee* will be 19,000 INR per person ( <i>Early bird discount of 1500 INR on entries till 31<sup>st</sup> July</i> )
<b>Registration Window</b>	Registration open from 23rd July to 17th August
<b>Registration Method</b>	<b>By Email:</b> meenu.daniel@kalkitech.in, soumya.nair@kalkitech.in, sales_team@kalkitech.in   Subject: IEC-61850 training Registration <b>By Phone:</b> Contact Meenu or Soumya @ 080-40527906
<b>Mode of Payment</b>	<b>E-Payment:</b> <ul style="list-style-type: none"> <li>• Bank account number: 8426 3011 0000 001</li> <li>• Type of Account: Cash Credit</li> <li>• Bank &amp; Branch: Bank of India, SME Branch</li> <li>• Branch Code: 8426</li> <li>• RTGS/IFSC/NEFT Code: BKID0008426</li> </ul>
<b>Personal details required for Registration</b>	<ol style="list-style-type: none"> <li>1. Name:</li> <li>2. Company:</li> <li>3. Department:</li> <li>4. Official email ID:</li> <li>5. Telephone Number:</li> </ol>
<b>Cancellation/Refund Policy</b>	<ul style="list-style-type: none"> <li>• Cancellations received within the registration window will be fully refunded minus administrative charges</li> <li>• Cancellations within 2 business days post closing of registration window are subject to the 50% event fee minus administrative charges</li> <li>• Further cancellation is not refundable</li> <li>• If you don't cancel and don't attend, you are still responsible for payment. Substitutions can be made at any time.</li> </ul>

\*Fee covers the charges for breakfast and lunch during all 3 days.

\*\*If you need any support/help for finding local transportation and accommodation, please feel free to contact us.

Note: We reserve the right to postpone/cancel the training course if the number of registered participants is less than 5. If so, the same will be communicated to the participants by 21<sup>st</sup> August.

Kalkitech reserves the right to change the schedule, intake, venue, date, policies of the training program

## Venue & Contact Details:

<b>Address</b>	Kalki Communication Technologies Ltd. #147, 5 <sup>th</sup> Main, 7 <sup>th</sup> Sector, HSR Layout, Bangalore, India- 560102
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