PTI POTENCIA Y TECNOLOGÍAS INCORPORADAS S.A.

Kalkitech intelligent energy systems

IEC-61850 (Edition 2.0) System Integration Training

Colombia, November 2011

Utilities and Power Industry has recognized the efforts of Technical committee IEC technical committee 57 (Power system control and associated communications) in developing IEC61850. Acceptance of this standard globally is a bold step towards renewing the existing assets and empowering new developments. IEC61850 transformed the way protection, control and communication will be engineered in future.

PTI SA is a partner of Kalki Technologies (Kalkitech) leader in standard based automation and together providing solutions in IEC 61850 Implementation Consulting, IEC 61850 system Integration, Commissioning, Testing Services, Enterprise Software, Product Engineering, Training Services and more. With hands on experience and proven capabilities we are supporting utilities in Colombian region.

PTI SA is an organization with competent human talent devoted to the supply of equipment and high-tech solutions sensitive to the protection of the Environment, Business committed to reliable and efficient systems, providing consultancy, installation and commissioning of Projects all sectors involved in the development of electricity infrastructure, electronics and telecommunications in Colombia, Latin America and its area of influence

As a part of continual professional development we are conducting a three day comprehensive seminar plus training workshop on IEC61850 standards for substation automation. Key features of this program are:

- This training course will cover the theoretical as well as practical aspects behind IEC61850 by reviewing the salient standards of IEC61850 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 SCL Manager etc.

- This training workshop is designed 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.

- The training is being delivered and developed by the experts involved in development and successful practical implementation of SCL Manager and interoperable products.

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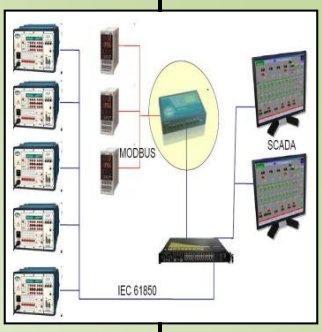
What does the training provide?

This training course provides advanced skills in substation automation including overview of IEC61850 for beginners. Salient points of the course are:



- Overview of IEC61850
- Introduction to Substation Configuration language (SCL)
- SCL Manager application
- Core 61850 specifications 7-2 ACSI/ 7-3 CDC and 7-4 LN Review
- MMS Protocol Overview
- Client/Server demo for practical realisation with SISCO/Kalki implementation server
- 61850 specifications 8-1, 9-1, 9-2 SCSM Review

Who should attend?

This training course is designed to assist the stakeholders involved in development and implementation of IEC61850 for substation automation. This training is intended but not limited to engineers and technical staff involved in installing, configuring and maintaining or operating substation automation and control systems, using IEC61850.

This training course is designed to introduce users with the practical insight of IEC61850 and also includes examples from successful implementations done by Kalkitech internationally.

- Utility Engineers
- System Integrators
- OEMs
- Maintenance Staff
- Consultant
- Network Planners
- System Designers
- Project Managers

Suggested Reading:

www.en.wikipedia.org/wiki/IEC_61850
www.kalkitech.com

Kalkitech Products:

DLMS Source Code | Protocol Gateways | PDC | IEC 61850 SCL Tool | Plant Efficiency | ABT Software | AMR Software | Enterprise Integration | DA/DMS

Kalkitech Services:

Services: Automation | Enterprise Software | Communication Protocols | Consulting | Product Engineering | Strategic Outsourcing

We are members of:

dnp Distributed Network Protocol
CIM users group
UCA International Users Group
cigré

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Training/ Course Schedule

IEC-61850, edition 2.0 Protocol, Utilities and Tools Training

	Day 1	Day 2	Day 3
9:00 - 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 Class Specifications
10:45 - 11:00	**Break**		
11:00 - 2:30	**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 - 7-4** Compatible LN &LD classes System LNs, LNs for Protection, LNs for Control, Generic Reference, Rules for new LNs & CDCs
12:30 - 3:30	**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** - History of MMS - Features and models - Applicability to 61850	**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
15:00 - 5:15	**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	**Extensions of IEC 61850 to Other Domains** Substation Hydro DER Wind Security Standard for IEC 61850 - IEC 62351 IEC 61850 - Ongoing Developments and Future

Certificate of Completion will be provided to each participant at the end of program.

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Vinoo S Warrier

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Vinoo Shankar Warrier is the Director Product Management –Communication Products. He has over 13 years of industry experience, designing and implementing communication solutions in the Energy Industry, specifically in the areas of Electricity, Pipeline and Discrete Manufacturing automation. Vinoo is a member of DLMS-UA Working group for DLMS/COSEM standards.

Vinoo lead numerous IEC61850 implementations, server protocol drivers in various OEM equipments including Protection Relays, Bay Controller units and protocol gateways for various customers worldwide. His achievements are in Implementations of IEC61850 Client protocol drivers in FactoryLink SCADA package of UGS Inc. He has conducted numerous training programs in United States, South Korea, Middle East, Australia and India. Technology Consultant for communication protocols in power sector, including DLMS/COSEM and IEC 61850 at various locations in United States, South Korea, Middle East and India. Conceptualization, designing and Implementation of a DLMS (IEC-62056) metering protocol library for clients and servers (meters). This product was built from scratch conforming to the protocol specifications and was duly certified by the DLMS-UA. Variety of protocol implementations such as DNP3, ICCP, IEC61850, Modbus, IEC-101, IEC-103 etc on various RTUs, Data Concentrators, IEDs and SCADA systems.

Contact us:

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Dictado en Inglés
Incluye Refrigerios y Almuerzos

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