

Applying IEC 61850 Level 2 Course

Electricity is an essential and crucial part of modern life with the industry and consumers demanding increased sustainability, reliability, timeliness and cost efficiency in the way in which electricity is generated and delivered to the consumer.



IEC 61850 is a fundamental improvement in the design, engineering and commissioning processes of a substation. This leads to reduced design costs, faster engineering, improved schemes, accurate documentation and automated testing, throughout life cycle of substation augmentations, system refurbishments and equipment replacements. Network topology, security and indeed the functions that are required must all be considered as to what is required, how they will be physically provided and allocated as well as how the system will be documented, tested and maintained.

Learn the meaning of
More
Faster
Less
Less
Higher
Lower



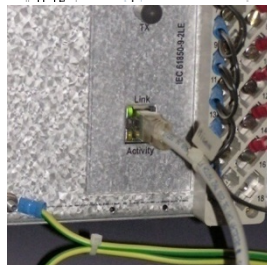
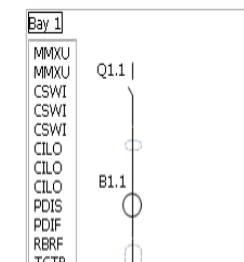
Rod Hughes Consulting provides a range of courses for all levels from executive to technical staff from general overview, to detailed introduction to hands on practitioner training.

The seminar is a comprehensive review of the standard, the processes and strategies for implementing IEC61850 with specific examples of real projects

- Strategy & Benefits of IEC61850
 - Business drivers—engineering and corporate
- Purpose and Scope of IEC 61850
 - Technical approach
 - Understanding interoperability
 - What does product compliance really guarantee
 - Compliant Engineering
- The Logical Node data model principles
- Application modelling for substation automation
 - Basic principles
 - Protection and Control
- Abstract Communication Services Interface
 - Client/Server, Publisher/Subscriber
- Communication Technologies
 - Ethernet
 - GOOSE/Sampled Value requirements
- Engineering process
 - SSD to ICD
- Architectural considerations for SA system
 - Communication architecture and topology
 - National Electricity Rules requirements
 - Device modelling and function allocation
 - Availability considerations
- The role of UCA IUG
 - Certification
 - TISSUES
- Organisational Road Map
 - Technical domains
 - Activity Map
- Project examples for IEC 61850

Presenter: Rodney Hughes

Rod is Managing Director of Rod Hughes Consulting Pty Ltd with thirty years in the Australian and international power industry. He is a protection engineer who is well known for his experience in providing leading industry training courses over many years. His perspective from supplier, utility and consultancy organizations has given Rod a wide range of expertise in the strategic direction of substations, power system protection and telecommunication design at both technical and commercial levels. Rod is the Convener of the CIGRE AP B5 Panel on Protection & Automation and an author of CIGRE Technical Brochure 326 – “The Introduction of IEC61850 and Its Impact on Protection & Automation Within Substations” and Convener of Working B5.39 “Documentation for Digital Substation Automation Systems Lifecycle”.



Who should attend?

The course is a comprehensive introduction to the Standard suitable for executives through to hands on practitioners seeking an understanding of IEC 61850 before taking more substantial business strategy development, engineering and training activities. It is not highly technology or jargon loaded but explores the essential start up knowledge requirements.

This seminar will present IEC61850 from the fundamentals through to detailed aspects of the engineering process and content. As a technology that links all aspects of substation design including Primary Plant, Protection & Control, Telecommunications, SCADA and Information Technology, the seminar will be highly valuable for policy makers, asset managers, technology managers, engineers, project managers and technical officers in these areas.

Seminar outcomes.

Attendees will understand the business drivers to adopt IEC 61850 and will receive a comprehensive overview of the technology principles of IEC 61850 and the engineering process. Attendees will also learn of the various references that will be useful for further learning on the subject and the areas for continued skill development.

Cost: \$A990.00 including GST

Date: Register your interest on line for details of the next course

Time: 8.30am—5.00pm

Venue: TBA

Lunch provided.

Places are limited so please book early.

Important Information

1. Registrations will only be confirmed on receipt of full payment prior to the event, unless by prior arrangement, e.g. Purchase Order. Payment by Cheque or EFT only - sorry, no credit cards.
2. Registration form and Tax Invoice on request—contact as below.
3. Completed registration forms should be completed as a Word document and returned with the email subject line containing “**Course Registration—Location—YourCompanyName**” for efficient processing.
4. Rod Hughes Consulting Pty Ltd reserves the right to accept or refuse registrations at its sole discretion and without explanation.
5. The course cost does not include travel, accommodation or other expenses as may be incurred by attendees, which will be the responsibility of attendees in all respects.
6. Attendance cancellation up to seven working days prior to the event will be subject to a \$150 cancellation fee.
7. Cancellations less than seven working days prior to the event will not be refunded and must be paid in full. Substitute attendees can attend.
8. Course materials are only provided to the attendees on the day in hard copy only. Course content is subject to copyright.
9. The course is subject to a minimum number of attendees. Cancellation of the course for any reason by Rod Hughes Consulting Pty Ltd will be fully refunded.
10. The course is aimed at current engineering practice for systems integration and hence the program may vary slightly to the advertised content in order to present up to date processes.
11. Please request any special dietary requirements at least three days prior to the event.

Registrations and further details contact:

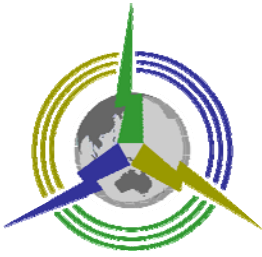
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Rod Hughes Consulting—your training partner—have already provided IEC 61850 training to over 200 engineers in more than 10 events in Australia and New Zealand

Competency Development Programs

Organisations world wide are fast realising that IEC 61850 is not simply about buying a different box, but rather the engineering process and engineering skills of the organisation that will enable IEC 61850 to be deployed. Rod Hughes Consulting has therefore developed a process and skill development program to enable organisations to build their IEC 61850 capabilities. These capabilities will position the organisations as competent IEC 61850 organisations and hence continue to work in their chosen field of the power industry and increase their added value and range of services.

The typical programs are outlined below. Tailored programs available on request.

Systems Practitioner Training Programs

28 CPD Points

This range of courses is aimed at developing practitioner skill levels depending on the particular discipline area and skill set required. Attendees will learn the aspects of engineering IEC 61850 based systems through hands on training using real software tools and hardware. It is recommended that attendees will have previously attended the Level 2 training described below.

Level 3a 4-day Systems Specification & Integration

Level 3b 4-day Systems Test

Level 3c 4-day IED Developer

Level 3d 2-day SAS & IED Specification

Topics are selected to provide specific skills for the area of competence

- Develop SSD , SCD, CID files
- Use of SCL tools
- Integrate devices, establish system operation, GOOSE, Sampled Values
- SAS testing
- Network performance analysis

Programs can be tailored to suit particular needs if required.

Please register your interest on line for the next courses in house courses on request.

Applying IEC 61850 Engineering

8 CPD Points

1-day seminar. This course introduces the spectrum of concepts and engineering processes of IEC 61850. This is an ideal course for general attendance by all technical staff as organisations start to consider and develop IEC 61850 strategies.

- Business drivers
- Understanding the Standard
- Engineering Process
- Systems Engineering
- Networking Issues
- National Electricity Rules
- Organisational Road Map
- Project examples

Continuing the popular series of seminars Adelaide, Auckland, Brisbane, Melbourne, Perth, Sydney, Wellington

IEC 61850 Concepts

2 CPD Points

This briefing presentation, typically 1.5—2 hours duration, is suited to organisations seeking to have a high level introduction to IEC 61850 concepts, the fundamental engineering process and the business drivers to adopt this technology.

Contact Rodney Hughes for further information.

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