

Protective relay school webinar series – North America

English language series

Delivering an efficient overview of key protection and control topics, these 90 minute free educational sessions will provide you with valuable information you can put to use immediately.

The highly regarded ABB Protective Relay School is coming to a computer near you. Benefit from the experience of subject matter experts as they share real world implementation and application scenarios, discover tips to improve the reliability of your protection and control strategies, and learn about the standards and technologies that are advancing the next generation substation. **To register, simply click on the date(s) below for the webinar(s) you wish to attend.**

Course name	Course description	Instructor	Date (Click on any date to register)
Introduction to Protection & Control	This webinar will define power system protective relaying and its purpose. A general overview of key concepts, protective relay classifications, operating principals, operating reliability and relaying philosophy will be presented. Also provided is a brief review of terminology, ANSI C37.2 device function numbers and IEC 61850 logical nodes (device function models).	In English Elmo Price	August 24, 2011
		In Spanish David Gonzalez	September 9, 2011
Introduction to IEC 61850	What is IEC 61850? Is it just another communication protocol? This webinar will explore IEC 61850, its protocols, and how it unleashes new possibilities in Substation Automation design and applications.	In English Alejandro Schnakofsky	September 7, 2011
		In Spanish Alejandro Schnakofsky	September 23, 2011
Line Differential Protection Fundamentals	As the use of fiber communication channels increases, line differential relaying is becoming a popular choice for line protection. This webinar will present the concept of line current differential relaying, and review scenarios where its application makes the protection scheme much simpler than distance protection pilot schemes.	In English Roger Hedding	September 21, 2011
		In Spanish Alejandro Cuellar	October 7, 2011
Transformer Protection Fundamentals	This webinar will address the challenges of protecting transformers with digital relays. Fundamental theory regarding transformers, harmonic restraint, differential protection, and backup overcurrent protection will be discussed.	In English Alejandro Schnakofsky	September 28, 2011
		In Spanish Alejandro Schnakofsky	October 21, 2011

Note: All courses are 90 minutes and begin at 2:00p.m. Eastern Time

Course name	Course description	Instructor	Date (Click on any date to register)
Line Distance Protection Fundamentals	This webinar will introduce the basic principles of measuring line impedance to the fault, i.e. line distance to the fault, and other measurement issues including: infeed, faulted phase selectivity, and load. The application of distance measurement to the power system transmission line, both step-distance and communication assisted directional comparison systems, and the pros and cons of each, will also be discussed.	In English Elmo Price	October 12, 2011
		In Spanish Alejandro Cuellar	November 4, 2011
Generator Protection Fundamentals	Generator protection schemes are unique in many ways, and usually involve many breakers and auxiliary equipment, increasing complexity. This webinar will address the basics of generator protection principles and the dynamics of synchronous generators. Typical faults and abnormal conditions will also be discussed.	In English Imran Rizvi	October 25, 2011
		In Spanish Alejandro Cuellar	November 18, 2011
Bus Protection Fundamentals	Bus faults tend to be very robust, and therefore easy to detect. This robustness may cause current transformers to saturate in the event of close in external faults. Bus protection schemes must recognize current transformer saturation and restrain from operating for external faults while operating quickly for internal faults. This webinar will discuss the various schemes used for bus protection.	In English Roger Hedding	November 4, 2011
		In Spanish David Gonzalez	December 2, 2011
Using IEC 61850 to Solve Protective Relaying Challenges	The introduction of IEC61850 enabled the digitization of copper wires in a standard and interoperable manner. This webinar will explore applications where GOOSE messages can be applied to resolve common protection and control challenges that involve the exchange of information between protection and control devices.	In English Alejandro Schnakofsky	November 9, 2011
		In Spanish Alejandro Schnakofsky	December 16, 2011
Introduction to Substation Control Using Relays	This webinar will review important substation control system design considerations. Topics include manual breaker and breaker disconnect switch controls with interlocks, current switching applications, and capacitor bank controls.	In English Jay Hicks	November 16, 2011
		In Spanish David Gonzalez	January 13, 2012
Feeder Protection Fundamentals	This webinar will review the basics of feeder protection such as characteristics of protective devices, system grounding, and principles of feeder coordination including the application of loop control with reclosers to implement automatic restoration. Coordination of fuses, circuit breakers, reclosers and sectionalizers will also be reviewed.	In English Tim Erwin	November 18, 2011
		In Spanish David Gonzalez	December 9, 2011
IEC 61850 and Substation Automation	Prior to the introduction of IEC 61850, substation automation systems were based on proprietary protocols, resulting in closed systems with narrow functional scope. Interoperability between other devices or applications required protocol converters and often significant engineering support. This webinar will review the IEC 61850 rules and definitions that enable Intelligent Electronic Device (IED) interoperability, delivering significant improvements in both function and flexibility.	In English Anders Brokvist	November 30, 2011
		In Spanish Alejandro Cuellar	January 27, 2012

Note: All courses are 90 minutes and begin at 2:00p.m. Eastern Time

Course name	Course description	Instructor	Date (Click on any date to register)
Cyber Security in Substations	The optimal substation communication architecture is able to support the information flow required by the advanced applications needed for optimal system reliability while still protecting mission critical assets. This webinar will explore the balancing act required to meet the demands of both reliability and cyber security.	In English Steve Kunsman	December 7, 2011
		In Spanish David Gonzalez	February 10, 2012
Motor Protection Fundamentals	Motor protection is far less standardized than generator protection. There are many different types and sizes of motors, and a variety of applications. In an easy to understand way, this webinar will present how the different types of motors can be protected from potential hazards such as thermal damage, start-up, faults in the windings, etc. Basic motor electrical theory will also be studied.	In English Eduardo Colmenares	December 14, 2011
		In Spanish Massimo Nardi	January 10, 2012
Remote Terminal Unit Applications	The gathering of monitored data and its transfer to a higher level control system is one of the primary tasks of a remote terminal unit (RTU). The integration of several communication technologies as well as the implementation of additional functionalities enable RTUs to perform well in a variety of applications. This webinar will provide an overview of common applications focused on the following segments: transmission, sub transmission, distribution, smart grid, and feeder automation.	In English Alejandro Schnakofsky	January 18, 2012
		In Spanish Alejandro Schnakofsky	February 17, 2012

Note: All courses are 90 minutes and begin at 2:00p.m. Eastern Time

ABB Inc.
Operations, Engineering and
Sales Support Center
940 Main Campus Drive
Raleigh, NC 2760
Phone: +1-800-HELP-365

www.abb.com/substationautomation

All sales are subject to ABB Inc.
General Terms and Conditions of Sale.

While every effort has been made to assure accuracy, the
information in this document is subject to change without
notice.

© Copyright 2011 ABB Inc. All rights reserved.