



SEMINAR AGENDA

2011 Protective Relay Seminar & Exposition

August 23 - 25, 2011
Buena Vista Hotel
Lake Buena Vista, Florida, USA
Industry Expo: August 24 - 25, 2011

Monday, August 22, 2011

10:00 – 17:00 *Registration & Information Desk Open*

Tuesday, August 23, 2011

7:00 – 17:00 *Registration & Information Desk Open*

7:00 – 8:00 *Breakfast*

INTRODUCTION GENERAL MATTER

8:00 – 8:45 **History of Protection**

Early to modern methods, systems, examples

Schweitzer Engineering Laboratories

8:45 – 9:45 **ANSI/IEEE Devices**

Wiring diagrams and schematics. Includes IEEE C37.2 devices numbers, function and use.

Michael Childers, P.E.

Doble Engineering

9:45 – 10:00 *Break*

10:00 – 11:00 **Instrument Transformers**

Types, ratings, manufacture, accuracy classes and testing.

Trench Limited

11:00 – 12:00 **Power System Fundamentals**

Per unit, symmetrical components, phasors, fault calculations

Michael Childers, P.E.

Doble Engineering

KNOWLEDGE IS POWER



SEMINAR AGENDA 2011 Protective Relay Seminar


- 12:00 – 13:00 *Lunch*
- 13:00 – 14:00 **Power System Fundamentals**
Michael Childers, P.E.
Doble Engineering
- 14:00 – 15:00 **Relay Designs**
Electromechanical, solid state
Elmo Price
ABB
- 15:00 – 15:15 *Break*
- 15:15 – 16:15 **Industry Topics**
Phasor Measurement Unit and Smart Grid
Krish Narendra
Consultant

ADVANCED TUTORIALS

These tutorials will offer a detailed look at dynamic relaying, fault analysis, Comtrade files, and many other topics plus a HANDS-ON Relay School that allows attendees to put the knowledge learned during the Seminar into practical application.

The expanded program options are marked with the following sign:



- 9:30 – 16:15 **TUESDAY TUTORIAL – ADVANCED TUTORIAL**
-  This tutorial addresses end-to-end testing, dynamic testing, system disturbances, comtrade files, dynamic fault recorders, root cause analysis, system modeling..
- Tony Giuliante; President
ATG Consulting
- Scott Short, P.E.
Doble Engineering
- Scott Schnell, P.E.
Doble Engineering
- Michael Childers, P.E.
Doble Engineering
- 16:15 – 16:45 **Q&A Session – “Ask the Experts”**
Pre-submitted and new questions from the floor will be presented and answered by a panel of experts. Also – “ASK DOBLE” questions & answers will be presented.



SEMINAR AGENDA 2011 Protective Relay Seminar

Wednesday, August 24, 2011

7:00 – 17:00 *Registration & Information Desk Open*

7:00 – 8:00 *Breakfast*

DISTRIBUTION PROTECTION

8:00 – 9:00 **System Coordination (Distribution)**

Directional, zones, overlap

Ed Khan; Solutions Manager, Protection Test Applications
Doble Engineering

9:00 – 10:00 **Reclosing**

Principles, philosophies, applications

Ed Khan; Solutions Manager, Protection Test Applications
Doble Engineering

10:00 – 10:15 **Break**

10:15 – 11:15 **High Z Faults**

High impedance faults, cold load pick-up, burndown

Scott Secrest, P.E.; Director of Engineering
Three-C Electric

11:15 – 12:00 **Distributed Generation**

Scott Secrest, P.E.; Director of Engineering
Three-C Electric

12:00 – 13:00 *Lunch*

SUBSTATION PROTECTION

13:00 - 14:00 **System Grounding**

System grounding for protection

Scott Short, P.E.
Doble Engineering

14:00 - 15:00 **Station Protection**

Zone of protection, station configurations, methods or schemes of protection, protection philosophies, protection of transformers, busses, reactors, cap banks, breaker failure.

Ed Khan; Solutions Manager, Protection Test Applications
Doble Engineering



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15:00 – 15:15 *Break*

15:15 – 16:15 **Station Protection**

Continued from previous presentation.

Ed Khan; Solutions Manager, Protection Test Applications
Doble Engineering

8:00 – 16:15 **WEDNESDAY TUTORIAL – HANDS-ON RELAY SCHOOL**



This tutorial will be a hands-on training on relays

Doble Engineering

Schweitzer Engineering Laboratories, Inc.

16:15 – 16:45 **Q&A Session – “Ask the Experts”**

Pre-submitted and new questions from the floor will be presented and answered by a panel of experts. Also – “ASK DOBLE” questions & answers will be presented.

16:30 – 19:30 **Manufacturers Expo & Reception**

The industry’s top manufacturers and service providers will be on hand to provide answers to your questions, increase your knowledge with demonstrations, present you with promotional materials and product catalogs, and help you develop new contacts.

Thursday, August 25, 2011

7:00 – 17:00 *Registration & Information Desk Open*

7:00 – 8:00 *Breakfast*

TRANSMISSION LINE PROTECTION

8:00 – 9:00 **Distance Relaying**

Jay Gosalia, Solutions Manager
Doble Engineering

9:00 – 10:00 **Pilot Schemes**

Jay Gosalia, Solutions Manager
Doble Engineering

10:00 – 10:15 *Break*

10:15 – 11:15 **Current Differential, Auxiliary Functions**

Jay Gosalia, Solutions Manager
Doble Engineering



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11:00 – 13:00 Lunch & Manufacturers Exposition

The industry's top manufacturers and service providers will be on hand to provide answers to your questions, increase your knowledge with demonstrations, present you with promotional materials and product catalogs, and help you develop new contacts. Lunch will be served inside the Expo Hall.

13:00 – 14:00 Load Encroachment

Jun Verzosa
Doble Engineering

14:00 – 15:00 Power Swing

Jun Verzosa
Doble Engineering

15:00 – 15:15 Break

15:15 – 16:15 Loss of Potential, Switch on Fault

Jun Verzosa
Doble Engineering

16:15 – 16:45 Q&A Session – “Ask the Experts”

Pre-submitted and new questions from the floor will be presented and answered by a panel of experts. Also – “ASK DOBLE” questions & answers will be presented.

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