Excitation - EX2000
Generator Excitation Maintenance

Course Outline – Open Enrollment
Course Description
This course offers training in the skills needed to do basic operation, maintenance and troubleshooting on an EX2000 excitation system. Learn how to operate the EX2000 exciter. Learn how to use the diagnostic Keypad and GE Control System Toolbox to troubleshoot problems. The course consists of a mix of classroom instruction and practical lab exercises using EX2000 simulators and actual EX2000 exciters.

Duration
5 Days

Target Audience
- Supervisors
- Electrical Maintenance
- Instrumentation & Controls
- Qualified engineers and technicians who are responsible for the operation and maintenance of an EX2000 excitation system.

Prerequisites
- Instruction is given in English, therefore a reasonable ability to read and understand spoken English is required
- The class is open to qualified engineers and technicians who work with excitation systems.
- The student should have reasonable computer skills.

Class Size
Maximum number of students: 10

Learning Objectives
This course will provide basic knowledge on the following:

- Safe on-line and off-line generator operation
- Operation of the exciter in an under or over excited limit
- Connection of a HMI to the simulator and going on-line with the simulators exciter file
- Read fault and alarm active and historical message
- Change an exciter parameter
- Search for exciter parameter identified by the instructor
- Identify exciter components on the elementary drawing and locate them on the EX2000 panel
- Interpret the meaning of the symbols on classroom documentation
- List steps required to safely lockout and tagout the EX2000
Course Content

LESSON 1 - Excitation fundamentals

A. EX2000 system documentation
B. EX2000 system overview

LESSON 2 - EX2000 Diagnostic Keypad operation

A. EX2000 Software overview
B. EX2000 Controller

LESSON 3 - EX2000 High Voltage Cabinet Modules

A. EX2000 Power Conversion module
B. Electrical drawing familiarization

LESSON 4 - GE Control System Toolbox© operation

A. Trend Recorder operation

LESSON 5

A. Troubleshooting techniques
### Revisions

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