COURSE DESCRIPTION

UNITROL® P
Operation and Maintenance

Course goal
UNITROL® P is the name of ABB static excitation systems for synchronous machines. The controller runs with the Programmable High Speed Controller technology (PHSC) in order to achieve excellent controller performance. The course goal is to teach students to operate, maintain and perform simple troubleshooting of the excitation system or automatic voltage regulator (AVR).

Main learning objectives
Upon completion of the course students will be able to operate the system, perform standard maintenance, and trace and correct simple faults.

Participant profile
Operator and maintenance staff in power plants and industrial sites with UNITROL® P excitation system

Prerequisites
Basic knowledge of electronics and power generation

Topics
Basics of the synchronous machine
Duties of excitation system
Major components of the UNITROL® P excitation system

The main software function of UNITROL® P
- Voltage regulator
- Limiters
- Power System stabilizer PSS
- Superimposed regulators (Power factor and Var control)
- Monitoring and protection

Operating aspects
- Local operating panel
- Start/Stop sequence
- Commands and Indications

Maintenance aspects
- Reading the hardware drawing and tracing signals
- Maintenance schedule
- Alarm and fault indication
- How to use the debugger using the FUPLA tool
- What to do in case of troubles
- How to replace hardware devices

Learning methods and tools
Lectures Hands on training using demo equipment with generator simulator

Duration
5 days, Number of Participants: Max. 8

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