

ABB UNIVERSITY & ONLINE ACADEMY FOR EXCITATION AND SYNCHRONIZATION

J540 - UNITROL® F Integration & Testing – System Integration

5 days, in person training

Course goals

UNITROL® F provides a comprehensive range of Automatic Voltage Regulators and Static Excitation Systems for high performance control of all kind of synchronous machines. The course goal is to learn how to start-up, adjust, operate, maintain and troubleshoot the static excitation system (SES) or automatic voltage regulator (AVR).

Main learning objectives

Upon completion of this course, participants will:

- Know the design aspects of UNITROL® F and its possible configuration
- Know the principle mode of operation of the electronic devices
- Be able to operate the voltage regulator
- Be able to localize and replace defective components
- Be able to apply the Commissioning and Maintenance Tool
- Be able to put a UNITROL® F system into operation

Participant profile(s)

- Operator and maintenance personnel in power plants and industrial sites

Prerequisites

- Basic knowledge of electronics and power generation
- Basic personal computer knowledge

Delivery and learning methods

- Lectures
- Hands on training using demo equipment with generator simulator

Duration

- 5 days, Max. 8 participants

Registration

For registration or enquiries please visit: [ABB University & Online Academy for Excitation - Enquiries](#)

Notes

Topics

Configuration for various applications

- Single channel and double channel configuration
 - Principle operation of the hardware
 - Measuring units, I/O interfaces
 - UNITROL® F excitation module
 - Optional devices (Diode failure relay, Power system stabilizer, Extended I/O board)
 - Converter types (Thyristor, Chopper)
 - Software Functions
 - Voltage regulator with limiters and power system stabilizer
 - Channel and follow-up control Course
 - Monitoring and protection
 - Superimposed controllers (Power factor and Var control)
 - Data exchange on double channel systems
 - Setting of configuration and parameters using local control panel and CMT tool
 - Logic control
 - Communication to superior data buses (MODBUS / Profibus)
 - The most important parameters
 - How to use the Commissioning and Maintenance Tool (CMT)
 - How to change parameters
 - How to display signals using data logger and trending
 - How to program application function blocks
 - Service and Commissioning aspects
 - Commissioning procedures and settings
 - Alarm Indications
 - Troubleshooting
 - Preventive Maintenance
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Contact us

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