

ABB UNIVERSITY & ONLINE ACADEMY FOR EXCITATION AND SYNCHRONIZATION

J620 - UNITROL® 5000 Operation and Maintenance

5 days, in person training

Course goals

The course goal is to teach students to start-up, adjust, operate, and maintain the UNITROL® 5000 excitation system.

Main learning objectives

Participant profile(s)	Prerequisites
Operator and maintenance personnel in power plants and industrial sites	 Basic knowledge of electronics and power generation
	- Basic knowledge using personal computer
	- English Level: B1

Delivery and learning methods	Duration
- Lectures, presentations	- 5 days, Max. 8 participants
 Demonstrations 	

Registration

Exercises

For registration or enquiries please visit: ABB University & Online Academy for Excitation - Enquiries

Notes

Tailor-made and on-site training courses on request

Topics

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- Basic operating condition of the synchronous machine
- Duties of excitation systems

Configurations of UNITROL® 5000

- Single channel and double channel configuration
- Principle operation of the hardware
- Measuring units, I/O interfaces
- Controller board
- Fast I/O
- ARCnet field bus
- Converter types
- Local service and control panel

Principle operation of the software

- Voltage regulator with limiters and power system stabilizer
- Channel and follow-up control
- Monitoring and protection
- Superimposed cos phi/VAR control
- Communication to superior data buses (MODBUS/Profibus)

Using commissioning and maintenance tool

- How to read signals and the fault logger
- How to record and display signals with the data logger and trending window

Maintenance aspects

- How to localize and replace defective components
- How to interpret alarms
- What to do in case of troubles

