
COURSE DESCRIPTION

J649 Power Electronics

UNITROL® 5000 Hands-on and Update Training

Course goal

Consecutively to the J640 Service and Commissioning course the participants can deepen their knowledge on UNITROL® 5000 by completing the J690 hands-on course. Based on practical exercises the students get familiar with the handling of the tools and application software of the UNITROL® 5000 excitation system using simulators. The simulation of the synchronous machine with the grid system allows carrying out realistic commissioning work. Most of the time the participants work on their own, supported by an instructor.

Main learning objectives

After completion of the course the participants are able to:

- carry out functional test of the various software functions such as voltage and field current regulators, limiters, power system stabilizer, monitoring and protection etc.
- program of additional functions and signals
- troubleshoot the UNITROL® 5000 system

Participant profile

Application, Test, Service and Commissioning engineers.

Prerequisites

Completion of the J640 UNITROL 5000 Service and Commissioning course.

Topics

- Calibration of actual values
- Optimization of the various regulators
- Functional tests of the limiters
- Test of channel and mode transfer
- Functional test of the follow up control system
- Test of reactive power and power factor controller

- Commissioning and test of the power system stabilizer
- Test of the monitoring and protection function
- Programming of additional functions and signals
- Troubleshooting procedures

Learning methods and tools

Practical hands-on training using simulators and demo units based on well-chosen exercises.

Periodically discussions of problems/questions with the instructor.

Duration

2 days, maximum 4 participants

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