COURSE DESCRIPTION

CHP411
Advant Power Control Expert Training

Course goal
The participants acquire in-depth knowledge about the Advant Control System with APC for combined cycle power plant based on Ecatrol 8 and Turbotrol 8.

Main learning objectives
- Monitor and analyze the data flow from the I/Os to the HSI and the PGIM
- Handle and utilize the programming tools for AC160 and AC450
- Configure and modify graphic displays
- Configure historical data collection and trends
- Analyze and configure alarm and events
- Backup and restore

Participant profile
System, process and application engineers. Maintenance, service and commissioning engineers.

Prerequisites
Knowledge corresponding to courses CHA331, CHP415 and CHT320
Knowledge on automation and control (open and closed loop control)
Knowledge GT and CC process

Topics
- User documentation, design rules, operation – and maintenance manuals
- On-line and off-line modifications of programs and database
- Backtranslate AC450 programs to the Function Chart builder
- Principals of Type Circuits and APC functional units and the user defined APC elements (for example C2PB) in the AC450 and AC160
- Signal transfer from AC160 to AC450/HSI using DSP (Data Set Peripheral) and Event Sets
- Learning to trace signals and alarms/events from the I/O point up to the HSI and vice versa
- Software structure of open loop, closed loop and protection functions. Cycle time of programs and communication
- How to correctly replace redundant modules (PM6x5, etc)
- Backup and Restore operations (what, how and how often)
- Maintain application data consistently (type circuits, user disk handling, types of loading/dumping, flash card burning)
- Hardware and software structure of ECATROL 8, cabinet layout, AF100 bus layout, redundancy
- Adding I/O signals at the Function chart builder and load it to the AC450/AC160
- System 800xA architecture for Advant Master
- HSI plant pictures, alarms, events, system messages
- Defining and using APC
- Understanding the fundamentals of historical data
- Realization of Plant Control Functions by “Functional Units” and “Type Circuits”
- Documentation of FUs with reading exercises
- Small engineering exercises
Course type
This is a face to face class room training with maximum 8 participants.

Learning methods and tools
Lectures, demonstrations, practical exercises and approx. 60% of the course is hands-on activities. Laptop or tablet is required to have access to the e-documentation.

Duration
10 days

To Register:
LMS:-MyLearning
Sign In: check IE browser setting
Click SIGN IN to Sign-up or Log-in with your ABB account.
Search: please enter course number or title into the search field. (Please check the language filter)
The latest version of the course portfolio, and course schedule can be found on our Learning Center Webpage