Honeywell Academy

HONEYWELL ADVANCED PROCESS CONTROL: FUNDAMENTALS – PROCESS CONTROLLER IMPLEMENTATION

COURSE OVERVIEW

Course Number: HAPC-0001
Course Duration: 4.5 Days

Prerequisite Course (s): None

Need to implement Process Controller for the first time, or provide on-going support for an APC System running in APP Nodes or in Experion Application Server (EAS) nodes?

This course provides a fundamental understanding of multivariable predictive control design and hands-on implementation using Process Controller software.

After a brief introduction to basic control concepts, Process Controller control concepts are presented. The workings of APC Engineering Studio (APCES) are presented to provide an in-depth understanding of the model identification tools and exercises are used extensively throughout the course to illustrate the different features of the software tools. Implementation on APP Node is covered extensively, as well as configuration to run on an EAS node.

COURSE DELIVERY OPTIONS

- Instructor-Led Training (ILT)
- Virtual Instructor-Led Training (VILT)

COURSE OBJECTIVES

- Design the most suitable controller structure, determine controller configuration, i.e., its MVs, CVs and DVs
- Design a pre-step plan in order to perform preliminary step testing with the objective of extracting gain and settling time information
- Design a rigorous step test plan and carry it out
- Identify dynamic models from raw data obtained from a step test
- Build the controller model, configuration and platform files needed for the on-line implementation of Profit Controller
- Simulate a controller off-line with the objective of performing preliminary tuning and stress testing before on-line commissioning
- Operate the LCN and PC resident user interfaces to interfaces to interact with the controller
- Install controller in the APP or E-APP Nodes
- APC Runtime Studio (APCRS) use for configuration to run on an Experion Application Server (EAS)
- Activate a controller, verify I/O and predictions, and perform commissioning
- Establish the foundation for further training in the more advanced implementation topics of APC and optimization

Honeywell