

## **HONEYWELL AUTOMATION CERTIFIED PROFESSIONAL: EXPERION PKS - PROCESS CONTROL ENGINEERING**

### **COURSE OVERVIEW**

**Course Number: HACP- EXPPCE**

**Course Duration: 5 Days**

**Prerequisite Course (s): HACA-EXP**

This course contains approximately 40 hours of learning and hands-on exercises and provides participants basic concepts and strategies for effective C300 Controller planning. It includes extensive hands-on lab exercises, during which participants will build and configure a Control Execution Environment applicable to the C300.

Moreover, this course gives process control engineers a thorough grounding in conventional and advanced control techniques. It includes a variety of lifelike plant simulations.

### **COURSE DELIVERY OPTIONS**

- Asynchronous Training (AT)
  - Self-paced with 2 months to complete
- Instructor-Led Training (ILT)
- Virtual Instructor-Led Training (VILT)

### **CERTIFICATION EXAM**

- Exam enrollment within 2 weeks after course completion

### **COURSE LANGUAGES**

- English

### **COURSE OBJECTIVES**

- Recognize the role of the major hardware and software components and learn how data flows through the C300 controller
- Plan the C300 controller
- Select appropriate components of the C300 controller including processors, I/O, and communications
- Configure the C300 controller
  - Hardware
  - Converting a SPARE channel in an IOM to corresponding channel type and Configure Series C IO references
  - Control Modules, which incorporate Data Acquisition using Reference IO's, Regulatory Control and Device Control Logic
  - Sequential Control Modules which are used to control process sequences, such as start-up, shut down and batch operations
- Perform Database Search operations
- Process Dynamics
  - Deriving Process Dynamics
- Digital Filtering
  - How filtering works
- Control Algorithms and Tuning
  - Feedback Control
  - PID Control
  - Trial and error tuning
  - Setup and tuning Cascade loops
  - Open-loop Tuning
  - Opertune
- Level Control
  - Types of level control
- Adaptive Control
- Feedforward
- Profit Loop Algorithm