



Automation Courses

We offer combined lectures and labs with hands-on, unbiased, practical training for automation. The 50+ classes cover fundamental skills, automation professional skills, and technical skills to meet the broad-ranging needs of your organization.

FUNDAMENTAL SKILLS

- Introduction to Industrial Automation & Control
- Mathematics for Instrumentation Technicians
- Understanding Industrial Processes, Measurement, & Control

AUTOMATION PROFESSIONAL SKILLS

Basic Continuous Control

- Industrial Pressure & Level Measurement Engineering
- Industrial Flow Measurement Engineering
- Sizing, Selecting, & Applying Process Control Valves
- Designing & Applying Model-Based Control Strategies
- Understanding Distributor Processor Systems for Control
- Developing & Applying Standard Instrumentation & Control Documentation
- Process & Laboratory Analytical Technologies Overview
- Process Analyzer Sample Conditioning System Technology & Component Specifications

Basic Discrete, Sequencing, & Manufacturing Control

- PLC Automation, PLC Structure, Programming, Installation, & Maintenance
- Understanding & Applying Motor Control Drives

Advanced Control Topics

- Batch Control Using the ANSI/ISA88 Standards
- Continuous & Emissions Monitoring Systems: A Process Analytical Sample Conditioning Technologies Overview

Reliability, Safety, & Electrical

- Understanding & Applying Instrumentation in Hazardous Locations
- Principles of DCS Alarm Management
- Safety Instrumented Systems-Design, Analysis, & Justification
- Advanced Safety Integrity Level (SIL) Selection
- Advanced Design & SIL Verification

Integration & Software

- Boiler Control Systems Engineering
- Burner Management Systems Engineering
- Database Management for Industrial Automation & Control Systems
- SCADA Systems Integration
- Implementing Business to MES Integration Using the ANSI/ISA95 Standards
- Applying Manufacturing Execution Systems
- Using the ANSI/ISA99 Standard to Secure your Control System
- Industrial Data Communications (I&II)
- Introduction to Building Automation Systems
- Introduction to Human Machine Interface (HMI) for Industrial Automation
- Implementing an Open Control System Network
- Industrial Wireless Systems
- Application of Industrial Wireless Systems
- Developing a Draft ISA100.11a Wireless Standard Compliant Product
- Tracking Industrial Assets: RFID, ISA1000.21, RTLS
- Establishing a Standards-Based Calibration Program
- System Checkout, Testing, & Startup

Work Structure

- Project Management for Automation & Control
- Advanced Project Management for Team Leaders

Licensure & Certification Review Courses

- Control Systems Engineering (CSE) PE Exam Review Course
- Certified Automation Professional (CAP) Exam Review Course

TECHNICAL SKILLS

Instrumentation Maintenance

- Installing, Calibrating, & Maintaining Electronic Instruments
- Advanced Operations of Smart Field Devices
- Understanding Electrical Systems
- Industrial Electronics
- Grounding & Electrical Noise Considerations for Control Equipment & Computers
- Maintaining Pneumatic Components in Measurement & Control

Industrial Data Communications

- Industrial Data Communications (I&II)

Control Systems

- Understanding & Tuning Control Loops
- Troubleshooting Instrumentation & Control Systems

Certification Review Course

- Certified Control Systems Technician (CCST) Exam Review Course

In addition to our regular courses, we have the flexibility to develop custom training programs and classes to meet individual customer's specific needs. We can teach the classes at our NC training facility or at a convenient location to your facility. See our website for further information (full listing, detailed course descriptions, delivery options, etc.).



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