

CERTIFIED CONTROL SYSTEMS TECHNICIAN (CCST)

"Master Control Systems Technology and Become a Certified Expert in Industrial Automation and Instrumentation."

Schedule

Venue (In-house)	Fees
At Your Organization Premises	Ask For The Quotation

Introduction

Industrial automation and control systems are essential for safe, efficient, and reliable operations across manufacturing, utilities, and process industries. A skilled Control Systems Technician ensures that instruments, control loops, and automation systems operate at peak performance.

The Certified Control Systems Technician (CCST) course provides comprehensive training aligned with international certification standards. Participants will learn the installation, calibration, maintenance, troubleshooting, and optimization of control systems, including instrumentation and PLC-based automation. This course equips professionals with the knowledge and skills to achieve CCST certification and excel in industrial control environments.

Objectives

By the end of this course, participants will be able to:

- Understand the fundamentals of control systems and industrial automation.
- Install, calibrate, and maintain field instruments and control devices.
- Troubleshoot and optimize control loops, sensors, and actuators.
- Apply safety, regulatory, and compliance standards in control systems.
- Perform signal analysis, data interpretation, and control system diagnostics.
- Configure and maintain PLC and DCS-based control systems.
- Prepare for and achieve Certified Control Systems Technician (CCST) certification.
- Develop effective problem-solving and decision-making skills in industrial automation.

Why Attend

This course is essential for technicians, engineers, and maintenance professionals who want to enhance their expertise in control systems and achieve CCST certification. Participants will gain practical, hands-on skills in instrument calibration, system troubleshooting, and loop optimization. The training ensures participants can confidently handle modern industrial control systems and contribute to operational excellence.

Target Audience

This course is suitable for:

- Control Systems Technicians and Engineers
- Instrumentation and Automation Professionals
- Maintenance Supervisors and Technicians
- Process and Plant Engineers
- Industrial Electricians and Technicians
- Graduate Students in Electrical, Instrumentation, or Process Engineering

Individual Benefits

- Gain comprehensive knowledge of control systems and instrumentation.
- Develop hands-on skills in calibration, troubleshooting, and maintenance.
- Increase career opportunities through internationally recognized CCST certification.
- Improve problem-solving skills in industrial automation environments.
- Gain confidence in handling modern control systems safely and efficiently.
- Stay updated with industry standards and best practices in instrumentation and control.

Organizational Benefits

- Enhance operational reliability and efficiency of control systems.
- Reduce downtime through skilled maintenance and troubleshooting.
- Ensure compliance with safety and regulatory standards.
- Build in-house expertise in instrumentation, automation, and control systems.
- Improve process performance and reduce operational costs.
- Support career development and certification of technical staff.

Instructional Methodology

The training employs a practical, hands-on approach through:

- Interactive lectures and system demonstrations
- Real-world troubleshooting and calibration exercises
- Step-by-step guided exercises on control loop maintenance and optimization
- Group workshops and collaborative problem-solving sessions
- Assignments focused on practical instrumentation and automation challenges
- Continuous feedback and Q&A sessions for reinforcement and skill improvement

Course Outline

- Module 1: Fundamentals of Control Systems and Industrial Automation
- Module 2: Introduction to Field Instruments – Sensors, Transmitters, and Actuators
- Module 3: Control Loop Fundamentals and Optimization Techniques
- Module 4: Instrument Calibration and Maintenance Practices
- Module 5: PLC and DCS Control System Overview
- Module 6: Troubleshooting Techniques for Control Systems
- Module 7: Safety Practices, Standards, and Regulatory Compliance
- Module 8: Signal Analysis, Data Interpretation, and Diagnostics
- Module 9: Preparation for CCST Certification Examination
- Module 10: Capstone Project – Comprehensive Control System Troubleshooting and Optimization

Certification

Upon successful completion, participants will receive a Certificate in Certified Control Systems Technician (CCST), validating their expertise in industrial automation, control systems, and instrumentation according to international standards.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
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- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

In-House / Customized Training

Interested in running this course for your team?

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