MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

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CONFIGURING AND TESTING SMART FIELD DEVICES

"Maximize Industrial Efficiency and Accuracy Through Proper Configuration and Testing of Smart Field Instruments."

Schedule

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

Introduction

Smart field devices are integral to modern industrial automation and process control, enabling accurate measurement, communication, and control in real time. Proper configuration and testing of these devices are crucial to ensure reliable operation, minimize errors, and optimize plant performance.

The Configuring and Testing Smart Field Devices course equips engineers, technicians, and maintenance personnel with the skills to configure, calibrate, and test smart instruments, such as transmitters, sensors, actuators, and intelligent field devices. Participants will gain hands-on experience with HART, Foundation Fieldbus, and other smart communication protocols, ensuring devices operate efficiently within automated systems.

Objectives

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

- Understand the principles and functionalities of smart field devices.
- Configure smart transmitters, sensors, and actuators for optimal performance.
- Test devices for accuracy, communication integrity, and operational reliability.
- Troubleshoot common issues in smart field devices and networks.
- Implement communication protocols like HART, Foundation Fieldbus, and PROFIBUS.
- Ensure proper integration of field devices into distributed control systems (DCS).
- Apply best practices for calibration, maintenance, and documentation.
- Enhance process efficiency, safety, and measurement reliability.

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Why Attend

This course is essential for engineers, technicians, and maintenance professionals working in process automation and industrial instrumentation. Participants will gain practical knowledge to configure, test, and maintain smart field devices, improving system accuracy, reliability, and performance.

Target Audience

This course is suitable for:

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

Individual Benefits

- Gain hands-on experience with smart field device configuration and testing.
- Develop troubleshooting and problem-solving skills for instrumentation networks.
- Enhance technical expertise in HART, Foundation Fieldbus, and other protocols.
- Improve professional competence and career advancement opportunities.
- Learn to optimize process control accuracy and reliability.
- Gain confidence in integrating smart devices into automated systems.

Organizational Benefits

- Ensure accurate and reliable measurements across the plant.
- Improve process efficiency, control, and safety.
- Reduce device downtime and maintenance costs.
- Ensure compliance with industry standards and best practices.
- Build internal expertise in smart instrumentation and control systems.
- Optimize system performance and reduce operational risks.

Instructional Methodology

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

- Interactive lectures and live demonstrations of smart devices
- Real-world case studies of device configuration and testing
- Step-by-step exercises on calibration, communication, and troubleshooting
- Group workshops and collaborative problem-solving sessions
- Assignments focused on practical integration of smart devices into DCS
- Continuous feedback and Q&A sessions for skill reinforcement

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Course Outline

Module 1: Introduction to Smart Field Devices – Principles and Types

Module 2: Device Communication Protocols – HART, Foundation Fieldbus, PROFIBUS

Module 3: Configuring Smart Transmitters, Sensors, and Actuators

Module 4: Testing Device Accuracy and Communication Integrity

Module 5: Troubleshooting Common Device and Network Issues

Module 6: Calibration and Maintenance Best Practices

Module 7: Integration with Distributed Control Systems (DCS)

Module 8: Data Monitoring and Performance Optimization

Module 9: Safety, Standards, and Regulatory Compliance

Module 10: Capstone Project – Configuring and Testing a Complete Smart Device Network

Certification

Upon successful completion, participants will receive a Certificate in Configuring and Testing Smart Field Devices, validating their expertise in configuring, testing, and maintaining smart instrumentation for reliable and efficient industrial automation.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **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? Please contact us:	TEL: **+601116373203**	EMAIL: **info@mawaevents.net**