Applied Smart Sensors

FESTO

Level 2

This certification provides students with an understanding of smart sensor technology and its integration into industrial systems. It focuses on hands-on exploration of sensor functionality, communication protocols, data acquisition, and system-level decision-making based on sensor data. Learners apply engineering and troubleshooting practices using simulation tools and real-world labs to build competencies in configuring, analyzing, and optimizing sensor systems.

Industry Recognized Certification Topics

- Sensor Theory and Classification
- Smart Sensor Communication Protocols (IO-Link, ASi, etc.)
- Analog vs. Digital Signal Processing
- Real-Time Monitoring and Control
- Sensor System Configuration and Diagnostics
- Data Logging and Cloud Connectivity
- Industrial Networking Basics for Sensors
- Project-Based Learning in Sensor Integration

Industry Recognized Certification Competencies

- Classify and Select Sensors for Applications
- Implement Smart Communication Protocols
- Analyze Sensor Signals and Data
- Configure and Test Sensor Networks
- Integrate Sensor Data into Control Systems
- Apply Data Logging and Cloud Connectivity
- Complete Project-Based Labs.

Units - 6 / Labs - 6