Applied Smart Sensors

Level 2

FESTO

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	Industry Recognized Certification Competencies
– Sensor Theory and Classification	– Classify and Select Sensors for Applications
– Smart Sensor Communication Protocols (IO-Link, ASi, etc.)	– Implement Smart Communication Protocols
– Analog vs. Digital Signal Processing	– Analyze Sensor Signals and Data
– Real-Time Monitoring and Control	– Configure and Test Sensor Networks
– Sensor System Configuration and Diagnostics	– Integrate Sensor Data into Control Systems
– Data Logging and Cloud Connectivity	– Apply Data Logging and Cloud Connectivity
– Industrial Networking Basics for Sensors	– Complete Project-Based Labs.
– Project-Based Learning in Sensor Integration	

Units - 6 / Labs - 6

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