

6 Station Fully electric Actuator Driven Automation Training Set Incorporations IIoT, Smart Device Control and Monitoring, Image Sensor, RFID, SCADA, ERP and Industrial grade robot



Study Topics

- Industrial Sensor Fundamentals and Applications
- Industrial Sensor Communication IO-Link Protocol
- Fundamentals of PLC programming according to IEC61131-3
- Fundamentals of receiving analog signals from industrial sensors and computing Mathematics with PLC
- Designing hierarchical PLC programs for machine control
- Using Electric Actuator and Control by PLC Programming
- PLC Communication Network EtherNet/IP and Wi-Fi technology
- PLC program design to detect and report machine malfunction and alarm
- PLC program design for connection and data exchange between machines via Modbus/TCP and Ethernet/IP communication systems.
- PLC program design in connection with industrial robotic arm
- Fundamentals of use and design of touch screen displays
- Connecting a touch screen display to a PLC system
- Fundamentals of using industrial robots
- Industrial robotic arm control programming
- Determining input and output device connections for industrial robotic arms via EtherCAT and EtherNet/IP
- Fundamentals of using IIoT gateway devices
- Using IIoT gateways to design a dashboard using an Internet browser control and Monitoring via tablet
- Using IIoT gateways to connect with a PLC
- Connecting IIoT gateways to the Internet network and creating a VPN
- Defining data in OPC UA and MQTT formats

- Programming special functions using Basic Script language
- Follow-up of the production of parts according to the production order with the RFID system.
- Using a Image Sensor for Workpieces Inspection
- Connecting a Image Sensor to a PLC system
- Fundamentals of SCADA System
- Connecting SCADA system to PLC for data management
- Creation and design of machine operation display screen with SCADA
- Determination of notification of malfunctions of machines and equipment
- Fundamentals of the Database System and the creation of SQL Database to store the data of the SCADA system
- Creating a Report System with SCADA System
- Connecting SCADA system to Internet network for display and remote control via Web browser and Smart phone devices.
- Enterprise Resource Planning
- Adaptive Solutions for Manufacturing and the Supply Chain.