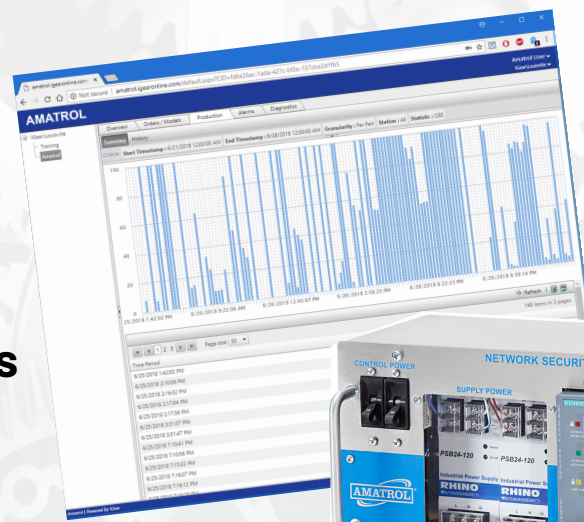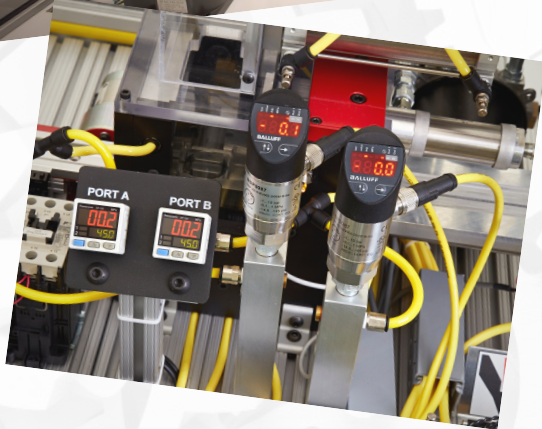# INDUSTRY 4.0

Introductory Course Offerings

Industry 4.0 technologies are rapidly transforming how people work in manufacturing, engineering and other sectors, helping them become more productive by connecting cloud-based and mobile data analytics software to smart devices. Industry 4.0 integrates the cyber world with the physical world.

This four-course series is designed to introduce high school and college students to Industry 4.0 and prepare them to pursue exciting careers related to this technology.

Introductory Industry 4.0 Courses

- Mechatronics
- Industrial Control Systems
- Industrial Robotics
- Industrial Internet of Things (IIoT)

Key Features

- Prepares for exciting careers
- Introduction to Industry 4.0 systems
- Skills-based
- Hands-on with advanced industry equipment
- Taught by certified faculty
- Interactive multimedia to support learning

Turn-key solution for Industry 4.0

These courses include interactive multimedia course materials, hands-on training, teacher materials and teacher training to make course implementation easy and effective.

Industry-Recognized Certifications and Careers

These Industry 4.0 courses lead to industry-recognized certifications from the Smart Automation Certification Alliance (SACA), enabling students to effectively continue their education or pursue careers in advanced manufacturing & information technology (IT).

Course 1: Introduction to Mechatronics

Topics include: basic principles of mechatronics, advanced manufacturing technologies, automation, electrical control systems, fluid power control systems, measurement, safety, and student automation projects.

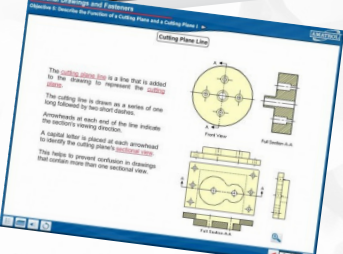## Course 2: Introduction to Industrial Control Systems

Topics include: basic robotics, basic CNC programming, electronic sensors, electronic drives, Ethernet networks, mechatronics applications, and student projects with controls and Smart Factory.

Course 3: Introduction to Industrial Robotics

Topics include: programming FANUC robots, robot simulation, robot safety, robot application workcells, productivity analysis, and student projects with Smart Factory and FANUC robot.

Course 4: Introduction to Industrial Internet of Things (IIoT)

Topics include: principles of Industrial Internet of Things, barcode and RFID product identification, smart sensors, real time ethernet communications, cloud and mobile data collection and analytics software, and student projects with tabletop Smart Factory and FANUC robots.

AMATROL
FANUC

(414) 258-6415 | info@labmidwest.com
www.labmidwest.com

LAB Midwest

SACA
SMART AUTOMATION CERTIFICATION ALLIANCE