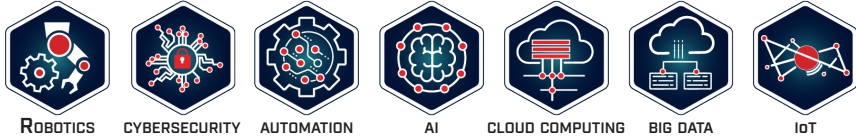


# intelitek

# INDUSTRY 4.0

Cybersecurity Lab



## CYBER-AWARENESS HANDS-ON LAB FOR INDUSTRY 4.0 TRAINING PROGRAMS

In the Industry 4.0 world of interconnected systems, reliable visibility into equipment and process status is vital for critical infrastructure operators. Internal and internet connected systems open advanced manufacturing processes to cyber vulnerabilities that can be catastrophic to businesses.

This lab kit is part of the overall cybersecurity solution from Intelitek designed to train students on all levels of the operations chain to be aware of, to configure and to be able to resolve cyberthreats.



## INTELITEK CYBERSECURITY TRAINING SOLUTION

The cybersecurity lab training system emulates typical environments common in industries like power plants, oil & gas refineries, water processing, industrial manufacturing, and process management. Students will build, configure, monitor and emulate cyber-events to understand the significance of cybersecurity to the IT & OT operator.

The lab kit includes IT network appliances and students learn their operation, about cyber threats and how to assess, detect, and react to cyber breaches. Students use tools to monitor threats to critical infrastructure in the operation of Industrial Control Systems. Student operators learn to prevent damage to people, equipment, and business operations.

The lab addresses IT and OT approaches that employ machine learning and predictive analytics to detect process anomalies in real time.



## SOLUTION FEATURES

- Hands-on exercises aligned with Intelitek Industry 4.0 curriculum
- Introduces operators and maintenance technicians to IT and OT networks and communications in a live production environment or industrial process
- Uses real-world components, including a network security switches and security appliances with configuration and security software
- Works with Allen-Bradley and Siemens PLC as well as a variety of sensors

## SKILLS YOU WILL LEARN:

- Introduction to Cybersecurity
- Intrusion Detection
- Devices Management:
  - Firewall
  - Managed Switch
  - Unidirectional gateway
  - Out-of-band monitoring system
- Identity and Access Management
- Device and Data Protection

**CYBERSECURITY LAB COMPONENTS**

**Basic Lab Kit**

- Managed Switch
- Unidirectional Gateway
- Firewall
- PC “Attacker” Laptop
- PLC & HMI (Siemens or Allen Bradley)
- Exercise Workbook for Lab

**Advanced Lab Kit**

- Sensors, Actuators and Other Devices
- PRS System for out-of-band monitoring

**RECOMMENDED CURRICULUM**

- Introduction to Industry 4.0
- Intro to Networking & Cybersecurity for I 4.0
- Advanced Cybersecurity for I 4.0

*Architecture of the Cybersecurity Lab Kit is aligned with typical industry configurations*

