



IntelliGenesis Cyber Learning Center

CYBATIWORKS™ INTRODUCTION TO CYBER-PHYSICAL SECURITY (OT, SCADA, ICS, IIoT, IoT)

Class Description

Instructors: Matthew Luallen & Stephen Scarbrough

This class establishes a high-level understanding of Operational Technology (OT) control system cybersecurity. Participants will use the CybatiWorks™ platform to emulate real control system logic, industrial protocols, Human Machine Interfaces (HMIs), sensors, and actuators. Hands-on exercises will take everyone through the process of building, breaking, and securing control system environments. The class is tailored for those with beginner to moderate cybersecurity skills and anyone needing an introduction to cyber-physical system security.

Topics Covered:

- Introduction to programmable logic controllers, function block diagrams, ladder logic, points/tags, communications and OLE for process control (OPC) / Human Machine Interface (HMI) programming
- Control system risk management (Threats, Vulnerabilities, Exploits, and Defenses)
- Modbus industrial communication protocol and how to analyze it

Class Duration: 8 hours

Qualifies for 8 CEUs for these CompTIA certifications:

