SIEMENS

Online-Training - Controller Communication for Industry 4.0 and IoT (IK-IPCOM)

Short Description

With developments such as Industry 4.0 or IoT (Internet of Things), the boundaries between IT and OT (Information and Operation Technology) are becoming increasingly blurred. Automation technology is often no longer a closed system and the controller communicates far into the upper levels of the automation pyramid up to the cloud. In this course, we will give you an overview of current communication standards, give you various options for connecting SIMATIC Controllers to the above levels and equip you for communication in Industry 4.0 and the Internet of Things.

Objectives

You are familiar with various IP-based communication standards, can implement them purposive in SIMATIC Controllers and effectively implement the requirements of Industry 4.0 and IoT for communication in automation systems.
You will deepen your theoretical knowledge through numerous practice-oriented exercises in our virtual exercise environment Virtual Lab.

Target Group

- Automation engineers
- Programmers

Content

- Basics Industrial Ethernet
- Overview of communication options of SIMATIC Controllers
- Communication with standard protocols (Open User Communication)
- Network diagnostics (incl. Wireshark)
- Secure communication
- Introduction to OPC UA
- SIMATIC Controllers as OPC UA servers
- Introduction to IoT & cloud communication
- MQTT as standard for IoT and cloud communication
- Overview of communication options to the cloud

Prerequisites

- Basic knowledge of network engineering
- Knowledge according to TIA-PRO2
- Knowledge of SCL is an asset
- Technical requirements

Type

Online-Training

Duration

3 days

Language

en