

## Controller Communication for Industry 4.0 and IoT / Controller Communication for Industry 4.0 and IoT (IK-IPCOM)

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### Short Description

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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

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You are familiar with various IP-based communication standards, can implement them purposeful in SIMATIC Controllers and effectively implement the requirements of Industry 4.0 and IoT for communication in automation systems.

### Target Group

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Automation engineers  
Programmers

### Content

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Basics Industrial Ethernet  
Overview of communication options of SIMATIC Controllers  
Communication with proprietary protocols  
Communication with standard protocols  
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

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Basic knowledge of network engineering  
Knowledge according to TIA-PRO2  
Good knowledge of SCL

### Type

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Face-to-face training

### Duration

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3 days

### Language

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