Wireless LAN in Industrial Networks

OEM: Siemens • Code: IC-IWLANP

COURSE DESCRIPTION

This training was conducted until March 13, 2026 under the course number IK-IWLANS. In industrial environments, WLAN is exposed to more extreme conditions, such as temperature fluctuations, humidity, dust, etc. In addition, a high-degree of reliability and performance is expected from these systems. At the same time, these industrial WLAN networks (IWLAN for short) provide a great deal of flexibility for companies in the implementation of complex applications indoors and outdoors. Thus, with Safety Integrated, applications can also be wirelessly implemented and seamlessly connected to Industrial Ethernet with PROFINET components. The course teaches the configuration, planning, and operation of IWLAN, also in interaction with real-time-capable systems. To ensure that the theoretical knowledge can later be implemented, we value in-depth practical exercises during the training. You can deepen your theoretical knowledge with numerous practical exercises on products from the SCALANCE W product line.

AUDIENCE PROFILE

- Decision makers
- Planners
- Sales personnel
- Configuring engineers
- Commissioning engineers
- Engineering personnel
- Project engineers
- Maintenance personnel
- Service personnel
- Industry: COOs
- IT: CIOs, network planners and administrators

PREREQUISITES

- Knowledge according to course "Ethernet Fundamentals in Industrial Networks" (IK-ETHBAS):
- You should have basic knowledge of the topic "Ethernet" and should be familiar with topologies, transfer processes, addressing, data transport and understand the associated technical vocabulary. It is also helpful if you are familiar with the principles of operation of routers, switches, hubs and and the OSI reference model. Basic knowledge of SIMATIC S7 and knowledge from the ST-PRO2 or ST-SERV2 courses is desirable.
- IK-ETHBAS
- To prepare for the training, please work through the WBT Data communication with Industrial Ethernet.

Note

- Included in the course price: Free access to the digital learning platform SITRAIN access - starting one week before the start of the course until two weeks after the end of the course.
- With the Learning Membership, you can deepen or repeat the content of this Learning Event as well as continue your education on other interesting topics.

COURSE OBJECTIVES

By the end of this course, participants will be able to:

- At the end of the course, you will know the requirements for wireless solutions in industrial networks. You will learn the fundamentals and knowledge required to plan, implement and support for plain mobile networks.

COURSE OUTLINE

Module 1: Content

- Comparison and coexistence of different wireless technologies
- Theoretical fundamentals of wireless technology
- Security and high date rates in WLAN
- Introduction to the different WLAN standards
- Planning and configuration of different radio links
- Planning and configuration of RCOAX radio networks with iPCF
- Planning and configuration of free radio networks with iPCF-MC
- Comprehensive exercises using the SCALANCE W product line