HIRSCHMANN CERTIFIED TRAINING

INDUSTRIAL ETHERNET (CT1)

Today all manufacturers consider Ethernet essential as a future-proof protocol for communication between various hardware and software platforms - both inside and outside industrial environments.

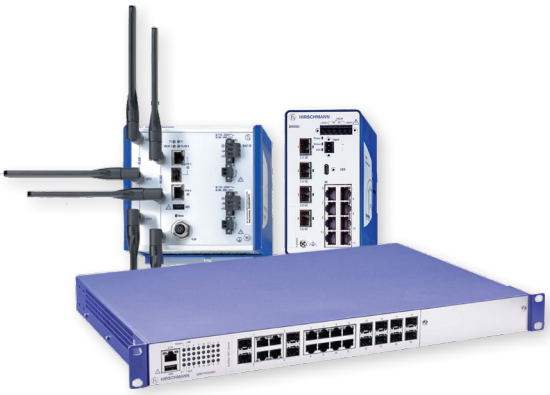
Ethernet makes it possible to connect many different PLCs and PC-based systems, in a seamless transparent network, which stretches from the factory floor to the boardroom.

WHO SHOULD ATTEND

Technology training course for System Engineers, Network Designers and Support Technicians who are building, supporting or migrating an Industrial Ethernet network.

PRE-REQUISITES

No previous knowledge of the subject is required. The participant should bring a laptop with Ethernet connection. Administrator rights are required.



OBJECTIVE

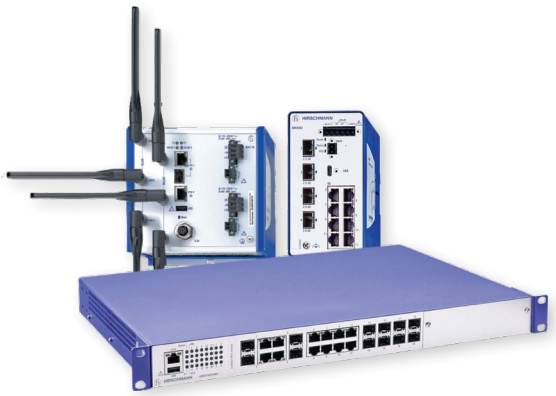
In this Industrial Ethernet course the participants will learn details of the technical fundamentals and deployment objectives of the world's most widely used LAN communication protocol. At the end of the course the participants will have a good understanding of Ethernet, as well as its role in industrial networking, both now and into the future.

2 days | 9.00 am to 4.30 pm

$1,199 ex. per person

NB: Minimum class number must be attained before classes can commence.

SEMINAR CONTENT



» Standardised bodies

- ISO/OSI Layer model
- IEEE 802
- IETF
- IEC

» The physics of ethernet

- Copper-based networks
- Fiber-based networks
- Physical interfaces
- Bandwidth/Speed
- Half duplex and full duplex
- Ethernet frame
- Understanding MAC addresses

» Ethernet in half duplex mode

- Ethernet access method: CMSA/CD
- Hubs

» Ethernet in full duplex mode

- Autonegotiation
- Switches
- Switching Mechanisms
- Forwarding Databases
- Delay of frames

» Network availability

- Topologies
- Rapid Spanning Tree
- Link Aggregation
- Industrial Redundancies (MRP, PRP, HSR)

» Traffic control

- Flow control
- VLANs
- Quality of Service

OTHER COURSES

INDUSTRIAL ETHERNET (CT1) | INDUSTRIAL NETWORKING (CT2) | INDUSTRIAL ROUTING (CT3) | HIRSCHMANN OPERATING SYSTEM - HiOS LAYER 2 SOFTWARE (HiOSL2) | NETWORK MANAGEMENT WITH INDUSTRIAL HiVision (CP2) | HIRSCHMANN OPERATING SYSTEM - HiOS LAYER 3 SOFTWARE (HiOSL3)