

HIRSCHMANN CERTIFIED TRAINING

INDUSTRIAL NETWORKING (CT2)

Industrial networks must connect an ever increasing number of technologies and users - while at the same time becoming more flexible.

To keep pace with the growing size and performance requirements of these complex networks, system administrators and support technicians need comprehensive technical and practical knowledge about IP communication, multicasting and network security.

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

Basic knowledge is required, for example previous attendance of the "Industrial Ethernet (CT1)" course. The participant should bring a laptop with Ethernet connection. Administrator rights are required.

OBJECTIVE

This course builds on the experience gained from "Industrial Ethernet (CT1)", providing network experts with intensive theoretical and practical knowledge about TCP/IP, IP communication and multicasting.

A special emphasis is placed on deploying TCP/IP and multicasting in complex industrial environments. This enables the participants to provide comprehensive support, both for demanding projects and their daily work.



3 days | 9.00 am to 4.30 pm



\$1,299 per person

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

SEMINAR CONTENT

» Internet protocol

- IP Packet
- IP-Addresses
- Netmask
- Classless Inter Domain Routing (CIDR)
- DiffServ

» IP communication

- Address Resolution Protocol (ARP)
- Static Routing

» Multicasting

- Multicast Addresses
- Mapping IP addresses to MAC addresses
- IGMP

» TCP and UDP

- Datagrams
- Ports

» Applications

- SNTP
- IEEE1588 Precision Time Protocol
- DHCP with Option 82
- SNMP



» Network requirements of industrial protocols

- ProfiNet
- Ethernet/IP
- Modbus/TCP

» Security

- 802.1x
- Radius
- Network Address Translation
- Portforwarding
- Access Control Lists

**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)