

# Simatic S7 Ethernet/Profinet Course (IK-ETHERPR)

### **Short Description**

This course is directed at Programmers, Commissioning engineers, Configuring engineers, Service personnel, Maintenance personnel involved with the design, commissioning and sustaining of an S7 Industrial Ethernet and PROFINET networks. The course uses a 'handson' practical approach to reinforce the theoretical aspects of the training.

#### Content

Introduction to Simatic Net - Industrial Ethernet Network Components and Installation Guidelines Overview of Industrial Twisted Pair Networks Industrial Twisted Pair Network Components

Communications Processors Overview of supported protocols - TCP, ISO on TCP, ISO & UDP Project Planning and Configuration of the Ethernet CP module

Data Communication with Industrial Ethernet using S7 Connections

NCM S7 Ethernet Diagnostics

Industrial Wireless LAN

**OPC Basics** 

Overview and introduction to PROFINET technology

PROFINET IO device types: IO controller, IO device, IO supervisor

Connections, network components, transmission media

Planning and installation of switched Ethernet networks

Installation guidelines for PROFINET systems

Configuring of PROFINET IO networks

Description files of the devices

Structure, startup and diagnostics of a PROFINET IO network

Function test of the PROFINET IO network

Diagnostics - Web Based Interface of PN CPU & FB126 for HMI display

MRP redundancy in PROFINET networks

Each of the above topic areas are backed up by practical exercises using a system model, consisting of the S7- 300 automation system, the ET200S distributed peripheral, the ET200M distributed peripheral and a conveyor model. Working examples are provided and tested out during the course.

## **Prerequisites**

The ability to use a MS Windows PC (W7), keyboard and mouse to include opening and closing programs, locating files, copy and paste objects /data (text, etc). Drag and drop files, objects/data (text, etc). Use of menus and multi-menus, manipulation of windows within a multi-window environment. Use of MS Windows Help.

Must have attended either ST-PRO1 or ST-SERV1 and ST-SERV2.

## Note

Course Duration - 5 Days

This training is not appropriate for trainees using S7-200/1200/1500 based systems. All configurations are demonstrated using Step7 V5.5 and not Step7 in the TIA Portal.

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Туре	
Face-to-face training	
Duration	
5 days	
Language	
en	
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2,670 GBP