

Certified PROFINET Network Engineer (IK-PNOCPNE)

OEM: Siemens • Duration: 5 Days (40 hrs) • Code: PNO-CERT

COURSE MODULES & TOPICS

Module 1: Industrial Ethernet and Network Fundamentals

- Introduction to Industrial Ethernet
- OSI 7-layer model
- Ethernet protocols
- Hubs, switches, routers, and firewalls
- Redundancy and network design
- Security

Module 2: Physical Layer and PROFINET Protocol

- Physical layer and installation
- Device model and profiles
- Setting up a PROFINET project
- IRT (Isochronous Real-Time)
- PROFINET theory and protocol mechanics
- Acyclic communications and diagnostic model

Module 3: Diagnostics and Troubleshooting

- Fault finding strategies
- Measurement tools (Wireshark)
- Introduction to other Industrial Ethernet protocols
- Ethernet-APL technology (Process Automation module)
- Device integration via FDI
- Hazardous area considerations

Module 4: Hands-On Exercises and Certification Exam

- IP addresses and ping exercises
- Wiring lab and design lab
- Setting up and configuring switches
- Configuring a PROFINET network
- APL device configuration

- Diagnostics lab; using Wireshark and troubleshooting tools
- Device integration using PACTware and PDM
- PNO-certified written and practical examination