

Cyber Security in Energy Automation - Module 6: Best Practice Engineering (CS-6BPE)

Ziele

To practice in a LAB environment the theoretical knowledge gained in the course [Cyber Security in Energy Automation - Basics](#), especially with regard to hardening of network systems and components.
This course also provides a practical introduction to the security solutions recommended by Siemens as part of its product solution "Secure Substation".

Zielgruppe

Technicians who are to design network devices and devices of the SICAM RTUs product line in automation systems and implement solutions regarding cyber security.

Inhalte

Overview Products and Security Features
Encryption (symmetric/ asymmetric) theory
PSK (Pre Shared Key)
PKI (Private Public Key Infrastructure) theory
NTP Configuration
▪ Secure NTP (PSK)
VPN IPSec (PSK)
▪ Tunnel/Transport mode
▪ LAB IPSec
Use of certificates
IEC 60870-5-104 extension based on IEC 62351-3
Client certificates for engineering
Automated enrollment of certificates per GridPass
Extended network segmentation
▪ Network segmentation VLANs
▪ Practical exercises and UseCases
Next Generation Firewalls
▪ Rules and regulations for firewalls
FWI4 (internal IEC 60870-5-104 Application Layer Gateway)
▪ Use Cases
Central user/ password management
▪ Radius authentication
▪ Switches, Routers and SICAM RTUs
Logging and Reporting
▪ Switches, Routers and SICAM RTUs
SNMPv3
▪ Switches, Routers and SICAM RTUs
System hardening

Teilnahmevoraussetzung

Basic knowledge of network and automation technology with SICAM RTUs is necessary.

Hinweise

Structure of the lecture: Theory 30% / Practical Exercises 70%
al-Training"> VIRTUAL CLASSROOM Training too.

CONTACT

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Typ

Präsenztraining

Dauer

4 Tage

Sprache

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