

CS 930 | Cyber Security Fundamentals

Training Facts

Fundamentals of Cyber Security of the TÜV Rheinland Cyber Security Training Program

Today, the worlds of functional safety and cyber security are inseparably linked in modern plant and process control systems.

This is also reflected by relevant standards regarding functional safety e.g. IEC 61511 with requirements to conduct a security risk assessment to identify the security vulnerabilities for SIS and to provide the necessary resilience against the identified security risks.

Engineers, Project Managers, Plant Managers, Technicians, and all who may be directly or indirectly involved are faced to handle, describe and understand principles of security management.

The 3.5 day Training will provide you with valuable skills and knowledge with a final exam. Participants who pass the exam will receive a Certificate issued by TÜV Rheinland. This document is a prerequisite in order to attend the advanced trainings of the TÜV Rheinland Cyber Security Training Program "Cyber Security for Components" and/or "Security Risk Assessment".

Examination

Upon successful completion of the final exam a "Fundamentals of Cyber Security Certificate" will be issued by TÜV Rheinland.

Duration: 3.5 Days, Start: Monday 12:30, End: Thursday 16:30

Location: Local HIMA Training Center / In-House

Registration: <https://www.hima.com/en/products-services/seminars/>

Contact: training@hima.com

Course Content

Terms and Definitions

- Safety and Security
- Defense-in-Depth, Zones and Conduits IEC 62443)
- ISO/IEC 2700x, IEC 62351, National Standards
- Principals "Cyber Kill Chain"
- CIA-Triade, Scopes and Measurement
- Understanding CVE/CVSS/ CWE/NVD

Network Communication

- Basic Terms and Definitions (ISO/OSI, NAT, Protocol Architecture)

Technical measures

- Firewall (SPI/DPI)
- 2-FA, PKI, VPN (IPSec / OpenVPN)
- Multi-Layer Security Models (e.g. Data-Diodes)

Organizational measures

- ISMS, Policies, Guidelines
- Risk Assessment
- Asset, Change-, and Patch-Management