

Power Generation Services

Siemens Power Academy – FS-ENG-SIS
TÜV Rheinland Functional Safety Program

Brief Description

The TÜV Rheinland Functional Safety Program provides engineers and managers of the process industry with the knowledge necessary to design, implement and operate Safety Instrumented Systems (SIS) in compliance with the international safety standards IEC61508 and IEC61511. Mainly intended for experienced safety system practitioners, the course addresses all phases of the safety lifecycle from hazard and risk assessment through design and implementation to ongoing operation and maintenance.

All attendees will receive a Certificate of Attendance. Those who successfully complete the training, pass the exam and fulfill the degree and experience criteria will also be provided with a TÜV Rheinland Functional Safety Engineer certificate which will be valid for five years.

This course is particularly recommended for HSE and risk engineers, instrumentation and control engineers, safety systems engineers, corporate safety managers, and plant maintenance engineers.

Prerequisites

Requirements for attendance: basic knowledge of control and safety principles; exposure to safety systems; university degree or equivalent experience in engineering.

Eligibility for certification: active participation in the course; passing the exam; a minimum 3 years' experience in the field of functional safety; university degree, or equivalent engineering level approved by employer.

Contents

This course covers the following topics:

- Introduction to functional safety
- Safety standards IEC 61508/ IEC 61511
- Process hazard Identification
- Risk assessment and ALARP
- SIL determination and LOPA
- Safety requirement specification
- Reliability data and quantification of failure
- Diagnostics and proof testing
- SIS design and verification
- Human interface and SIS security
- SIS realization and validation
- SIS operation and maintenance
- Functional safety audit and assessment
- Functional safety management

Course Details

Size: Max 10 participants

Language: English

Duration of course: 4 days + 0.5 day exam

Location of course: Siemens Training Offices

Dates: Refer to training course schedule

Contact:

Siemens Energy Pty Ltd
Controls and Digitalisation

SCD Training Centre
Email: ppatraining.au@siemens.com