# **SIEMENS**

## **TUV SUD Functional Safety Certification**

### **General Information**

Course Code	SCT-TUVFSE1A
Global Code	NA
Length	3.5 Days
CEUs	2.0

#### Audience

Enter course audience. Style should be 3\_General Text

- Application engineers and system integrators with some experience in Functional Safety
- Project and safety managers
- Designers and safety specialists working in machinery applications.

#### Prerequisites

- MS Windows Expertise
- Basics of Functional Safety according to IEC 61508-3 and ISO 13849
- Basic exposure to machine safety concepts

#### Profile

The objective of this course is to relate the safety concept of IEC 61508-3 and cover the main principles for Functional Safety. ISO 13849 and IEC 62062 are covered by demonstrating safety principles according to these standards and how they relate to IEC 61508-3.

Software development of safety related control systems is covered in day three followed by a fourth day question and answer session with resulting final exam.

Participants who have successfully passed the exam receive a certificate and will be listed on the TÜV SÜD website.

#### Objectives

Upon completion of this course, the student shall be able to:

- Analyze the main requirements of IEC 61508-3 and ISO 13849 for the design of safety related parts.
- Identify risk analysis and selection of protective devices to achieve required risk reduction.
- Review of documentation requirements for machine safety applications
- Examine typical safety circuits, schematics.
- Identify safety validation requirements.
- Review the software related to safety related control systems.

#### Topics

- 1. IEC 61508-3 Safety Concepts
- 2. Safety Principles relating to ISO 13849 & IEC 62062
- 3. Software Development of Safety Related Control Systems
- 4. Final Exam