

Functional Safety for the Machine Industry Workshop & Certification (ST-NSST)

Short Description

Machine equipment manufacturers, plant builders or operator/maintainers are required by law to ensure the safety of personnel and the environment. Understanding the relevant standards and your application is key to achieving these goals. This workshop provides a practical view on the application of the standards. It is appropriate for quality managers, project personnel, programmers, engineering and maintenance personnel involved with the design, commissioning and sustaining of functional machine safety systems in an industrial environment. The examination module is for those personnel who have completed the required pre-requisite Functional Safety for the Machine Industry Workshop and wish to enter the associated examination module.

Objectives

On completion of this workshop the participant will be able to: -

- Describe the meaning and requirements of Functional Safety.
- Identify and apply the relevant ISO 13849 / IEC 62061 safety standards.
- Understand the procedure for configuring plants and machines.
- Appreciate the demands on systems and components of the design process in meeting Functional Safety requirements.
- Calculation of the safety parameters (PL, MTTFd, DC, SIL and PFH).

EXAMINATION:

The objective of this examination is to award candidates who have successfully proven their understanding of Functional Machine Safety and its application a TÜV Safety Certificate.

Content

Overview of the requirements and standards for functional machine safety

Current developments and innovations

Concept of ISO 13849

Concept of IEC 62061

Demands on systems and components, system design

Qualitative perspective

Quantitative perspective

Key standards topics areas will be :-

Safety functions

Safety requirements

Safety Parameters

Architectures

Software

Verification & Validation

Modification

Documentation

EXAMINATION:

The examination is based on understanding and applying the functional safety learning points gained from attending the preceding Functional Safety for the Machine Industry Workshop. This assessment is carried out under formal examination conditions. Please note it is essential that examination candidates bring their Sitrain/TUV documentation/ notes from the pre-requisite Functional Safety for the Machine Industry Workshop to the examination session. This information will be required to complete the examination tasks. Delegates will also need to bring a scientific calculator with them.

Prerequisites

It would be advantageous for participants to have had some previous exposure in working with functional machine safety systems either in a design, implementation or ongoing support roles.

Note

Attendance on this safety training workshop is a required pre-requisite for participants intending to take the follow-on Functional Safety for the Machine Industry Examination Module. Successful prior completion of this examination module is required to gain certification on some subsequent Siemens safety training modules e.g. AS-Interface Safe Certification Course.

Type

Face-to-face training

Duration

3 days

Language

en

Fee

1,695 GBP