

Functional Safety For Machinery Introduction

OEM: Rockwell Automation • Duration: 3 Days (24 hrs) • Code: SAF-TUV1

COURSE MODULES & TOPICS

Objectives

- Introduction to Standards USA Legal Requirements and Regulations
- EU Legal Requirements and Regulations
- Functional Safety Management
- Risk Assessment Methodologies
- Safety of Machinery – Electrical Equipment of Machines
- Introduction to Safety Functions ISO 13849-1:2015 General Principles
- ISO 13849-2 Validation
- Functional Safety of Safety-Related Control Systems Select Topics – Hardware
- Safety Function Examples
- PL and SIL Calculation Examples

Student Materials

- Student Manual includes the key concepts, definitions, examples, and activities presented in this course
- Standards are not provided by Rockwell Automation. Although not required, it is highly recommended that students who plan to pursue engineer-level certification bring printed copies of the following standards: IEC 60204-1 (2018)
- IEC 62061 (2021)
- ISO 12100: (2012)
- ISO 13849 part 1 (2015) and part 2 (2012)

Next Level Learning

- Functional Safety for Machinery Engineer Certification (TÜV Rheinland) course (SAF-TUV2T)

Course Agenda

Day 1

- Introduction to Standards USA Legal Requirements and Regulations
- EU Legal Requirements and Regulations
- Functional Safety Management
- Risk Assessment Methodologies

- Safety of Machinery – Electrical Equipment of Machines

Day 2

- Introduction to Safety Functions ISO 13849-1:2015 General Principles
- ISO 13849-2 Validation

Day 3

- Functional Safety of Safety-Related Control Systems Select Topics – Hardware
- Safety Function Examples
- PL and SIL Calculation Examples