

## FS 111 | Functional Safety basic knowledge

## TrainingFacts

### Live Webinar

### Introduction to Functional Safety in process industry according DIN EN IEC 61511

Practical based instruction for end users and system integrators. The one-day workshop demonstrates the implementation according the standards of functional safety. Participants learn to understand, communicate and apply Functional Safety Management and lifecycle principles. Use hazard and risk analysis, design safety-instrumented systems (SIS), calculate failure rates, select adequate equipment and understand the certificates and the relevant safety manuals.

### Course Content

#### Introduction/Basics

- Presentation of relevant standards
- What is risk and how to handle it?
- Manage safety properly

#### Analysis

- Identification of hazards and classification
- Examples using HAZOP, risk matrix and risk graph

#### Realisation

- Basics for specification
- Considerations about software design?
- Optimizing of software development
- Key elements for operation
- Checklists: a universal aid?

#### ValidationOperation

- Safety must be ensured during plant operation
- Proper (important) recording of faults
- Fault analysis
- Proof tests

**Duration:** 2 days, 4 sessions with 2 hours each  
daily 09:00 – 11:00 and 13:00 – 15:00 o'clock

**Number of participants:** minimum 2, maximum 16 participants

**Registration:** <http://academy.hima.com>

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