

# Reliability Academy

Reliability Engineering Training Courses

## EN 61508 Briefing: Requirements and Application

**Goal:** The briefing gives basic information about Safety Life Cycle and EN 61508 requirements in practice. The briefing introduces the right procedures in risk analysis, SIL determination, reliability of safety instruments, including specification. *The 1st session can be complemented with a more detailed session on selected topics which arise during briefing.*

### 1. Introduction

- EN 61508 application in industry. Do we have to comply, should we commit?

### 2. Standard Structure, Safety Life Cycle

- Safety Management during product life. Phases in Safety Life Cycle.
- How to start

### 3. Tolerable Risk, Risk costs, Risk criteria and SIL

- Tolerable risk, compensation costs and classification
- What is SIL and how to determine it?

### 4. Risk Analysis and Identification of Safety Functions

- Role of risk analysis
- Selecting the right method(s) and scope of risk analyses.
- Safety functions, allocation, qualitative and quantitative LOPA

### 5. Safety Equipment Requirements in comparison to Risks

- Safety equipment, concept according to EN 61508
- How to select a specific equipment, Architecture, Reliability Requirements.
- How to calculate MTBF of safety electronics? Modeling tools.

### 6. Safety Documentation

- Safety Plan
- Safety Specification, Safety Requirements

### 7. Discussion on how to comply with EN 61508, EN 61511 and CE-conformity