

Basic principles of Functional Safety acc. to IEC 61508.

Understanding Key Principles and Requirements of Functional Safety.

Seminar	1 Termin verfügbar	Teilnahmebescheinigung
Präsenz / Virtual Classroom	8 Unterrichtseinheiten	Online durchführbar

Seminarnummer: 07277

Stand: 10.06.2026. Alle aktuellen Informationen finden Sie unter <https://akademie.tuv.com/s/07277>

This seminar introduces main aspects of Functional Safety and key principles as well as requirements referring to the international standard IEC 61508.

The following points are also discussed in detail:

- What are the requirements for safety components?
- How should the development effort be estimated?
- Where do you need to adapt your development process to the standards?

Nutzen

- You will get details about safety requirements for safety components.
- Considerations for developing safety components will be discussed.
- You will understand the standard's defined safety life cycle phases.
- You will learn how to interpret and compare safety-related parameters and specifications.

Zielgruppe

Product developers; marketing, sales; product management, project management, quality management, inspectors and managers.

Inhalte des Seminars

Legal aspects of the international standard IEC 61508
Overview of the contents of IEC 61508

- Risk Analysis
- How much safety is necessary?

Risk assessment according to IEC 61508-5

- Functional Safety Management
- Definition of lifecycle-phases
- Documentation
- Functional Safety Assessment
- Modifications
- Competence
- Suppliers of products or services

Safety-related Parameters

- Hardware fault tolerance
- Safe Failure Fraction (SFF)
- Average probability of failure (PFDAV)
- Relation between PFDAV and Proof Test Interval (PTI)
- Probability of a dangerous failure per hour (PFH)
- SIL claim
- Interpretation of safety-relevant parameters (What is good, what is bad?)

Product Liability

Machinery Standards

- EN ISO 13849-1 range of application
- Determination of performance level
- EN 62061 range of application
- Application software development

Terminübersicht und Buchung

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