

Development of safety related Hardware acc. to IEC 61508, EN ISO 13849-1 and IEC 62061.

Hardware of safety-related products.

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

Seminarnummer: 07278

Stand: 08.07.2026. Alle aktuellen Informationen finden Sie unter <https://akademie.tuv.com/s/07278>

This seminar presents normative requirements for development of hardware in safety-related engineering. Structural requirements are discussed as well as measures for fault detection and control based on practical examples.

All aspects necessary to design safety-related hardware will be considered and discussed.

Focus is put on requirements for SIL 3 HW development according to IEC 61508 and IEC 62061 as well as EN ISO 13849-1 and their practical realization.

Nutzen

- You will gain a thorough understanding of the standard's requirements.
- You will understand effective error control measures.

Zielgruppe

Engineers designing and developing HW products and components. Project managers and executives responsible for product design and development.

Voraussetzungen

Basic knowledge of the standards IEC 61508, EN ISO 13949-1.

Inhalte des Seminars

Normative fundamentals of Functional Safety: IEC 61508, IEC 62061, EN ISO 13849-1

Safety related structures acc. to

- IEC 61508, IEC 62061
- EN ISO 13849-1

Safety-related requirements

- normative requirements
- „good safety engineering practice“
- handling of fault exclusions

Presentation of various diagnostic techniques

- digital DC - inputs
- digital DC – semiconductor outputs
- analog inputs
- reset-circuits
- microcontroller
- power supplies

Practical Example: Role-playing „Designer goes inspector“

- self-contained assessment of a μ C based circuitry
- common discussion of results

Terminübersicht und Buchung

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