# Safety related Software acc. to IEC 61508 – Development and Test.

**Reliable software for safety-critical systems: Development and testing according to standards.**

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| Seminar | 2 Termine verfügbar | Teilnahmebescheinigung |
| Präsenz / Virtual Classroom | 8 Unterrichtseinheiten | Online durchführbar |

Seminarnummer: 31777

Stand: 22.11.2026. Alle aktuellen Informationen finden Sie unter https://akademie.tuv.com/s/31777

This workshop explains terms and requirements of the international Standard IEC 61508 part 3 and their application and realization comprehensively.

A thorough overview of the complete software development process is presented, enabling participants to estimate the complexity of developments in more detail in order to achieve a precise and cost effective project planning.

Furthermore, a detailed survey as well as transfer of technical knowledge regarding precise measures for fault avoidance and fault control will give practical support for effective software development. Methods, like for example determination of software complexity as well as test coverage, will help participants to design, tests and assess their results more effectively.

This workshop is only available in English language as in-house workshop.

## Nutzen

Overview and knowledge of specific methods for error prevention and error control.

## Zielgruppe

Software developers, project managers, quality management, inspectors, and executives responsible for the development and deployment of safety-critical systems.

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## Voraussetzungen

Basic knowledge regarding test and development of hard- and software acc. to IEC 61508.

## Inhalte des Seminars

Overview IEC 61508 part 3

- Application of Standard IEC 61508
- Risk analysis
- Software development process
- Safety life cycle of software

Documentation

- Safety Requirement Specification (SRS)
- Specification of SW-architecture
- Documentation of tests

Measures of fault avoidance

- Test planning
- Documentation
- Defensive programming
- Coding guidelines
- Proven in use
- Use of test and development tools

Selected methods of hardware fault control

- RAM-tests
- ROM-tests
- Opcode-tests
- Internal processor tests

Verification and validation

- Static tests
- Dynamic tests
- Software-Complexitiy

Compiling of a FMECA

Modifications

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Examples and exercises will be included to this workshop.

## Terminübersicht und Buchung

Buchen Sie Ihren Wunschtermin jetzt direkt online unter https://akademie.tuv.com/s/31777 und profitieren Sie von diesen Vorteilen:

- Schneller Buchungsvorgang
- Persönliches Kundenkonto
- Gleichzeitige Buchung für mehrere Teilnehmer:innen

Alternativ können Sie das Bestellformular verwenden, um via Fax oder E-Mail zu bestellen.

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