Functional Safety for Automotive Professionals

ISO 26262 and ISO/TR 4808 - 2 days

Date/Time	Location	Language
Apr 23–24, 2024/ 8:30 a.m. - 5:30 p.m. CEST	Berlin or online (optional) Registration	German

ISO 26262 provides an internationally recognized reference for the development of safety-related automotive E/E systems. Developers of such systems need to understand and implement the standard’s requirements pertaining to system, hardware, and software development. This training class provides a systematic introduction to key concepts of ISO 26262 and their practical application, covering the concept phase including hazard analysis and risk assessment (HARA) as well as the subsequent system, hardware, and software development phases.

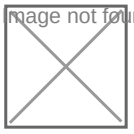
Target Audience

This training class is targeted at automotive professionals (component and system engineers, engineering managers, quality, and project managers) involved with the development of safety-related automotive E/E systems, future functional safety engineers, and managers.

Highlights

- Safety 101 (harm, risk, risk reduction, fault, error, failure, hazard, failure classification)
- Scope of ISO 26262 (safety, functional safety, safety of the intended function)
- Item definition and hazard analysis and risk assessment (HARA), ASIL determination
- Refinement of safety requirements (safety goals, functional safety concept, technical safety concept, hardware safety requirements, software safety requirements, ASIL decomposition)
- Fundamentals of system, hardware, and software development in compliance with ISO 26262
- OEM – supplier relationships (development interface agreement, workshare)
- Functional safety management (safety plan, safety case, confirmation measures)

Certification



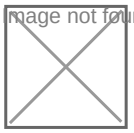
Safety standards such as ISO 26262 require that people who develop safety-related E/E systems have sufficient specialist knowledge. Corresponding evidence is regularly requested. Therefore, following the training class, the participants have the opportunity to prove their acquired specialist knowledge in a certificate examination conducted in collaboration with Technische Akademie Esslingen (TAE).

Please contact training@tudoor.com for more information.

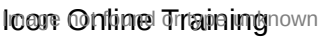
Languages

Available in English and German

Formats



Open-enrollment Trainings
at one of our locations



Virtual Classroom Trainings
wherever you are

In-house Trainings
online or in-house

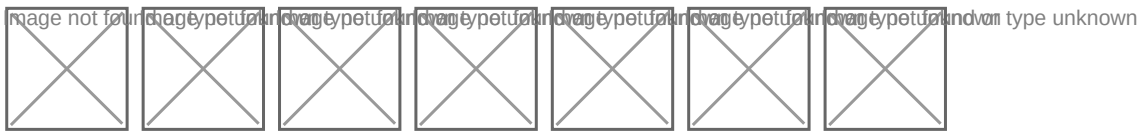
More Details on Formats and Locations

Cost, Terms & Conditions

See all fees, terms & conditions for training classes provided by tudoor academy

Send Request

Our Trainers



Agenda

Day 1

Safety fundamentals

- Intuitive notion of safety, harm, risk, and risk reduction
- How systems fail (faults, errors, failures, hazards)
- Systematic vs. random faults/failures
- Failures in hardware/software
- Dependent vs. independent failures

- Safety, functional safety, safety of the intended functionality (SOTIF)

ISO 26262 – Introduction

- Technical standards
- Functional safety standards (IEC 61508 and derivative standards)
- ISO 26262 overview
- Scope of ISO 26262
- ISO 26262 Safety Life Cycle

ISO 26262 – Concept phase

- Item definition
- Hazard analysis and risk assessment (HARA), determination of Automotive Safety Integrity Levels (ASIL)
- Safety goal determination
- Functional safety requirements/functional safety concept (FSC)
- ASIL decomposition
- Management of safety requirements

ISO 26262 – System development (I)

- Technical safety requirements/technical safety concept (TSC)
- Hardware Software Interface (HSI)

Day 2

ISO 26262 – Hardware development

- Hardware safety requirements
- Hardware design
- Classification of hardware failures, hardware architectural metrics, diagnostic coverage
- Hardware integration and testing

ISO 26262 – Software development

- Software safety life cycle
- Software safety requirements
- Software design
- Software implementation
- Software integration and testing
- Verification of software safety requirements

ISO 26262 – System development (II)

- Hardware software integration and testing
- Safety validation
- Safety case, release for production

ISO 26262 – Functional safety management

- Safety plan
- Safety case
- Confirmation measures (confirmation reviews, safety audit, safety assessment)

ISO 26262 – Special topics

- Development Interface Agreement (DIA), workshare between OEMs and suppliers
- Confidence in the use of software tools (tool classification and qualification)