Development of safety related Software, Analysis & Testing acc. to IEC 61508

General: Training contents can be discussed and agreed in preparation of the specific training. So the training can be adjusted to the special needs.

The exida approach is to explain how the IEC 61508 requirements can be fulfilled, and not only to show the requirements of the IEC 61508.

Language: Selectable between German and English, training material will be in English

Duration: 1.5 days, can be extended based on possible additional agreed topics

Date: For In-House trainings this will be agreed together before the training

For public trainings please refer to:
http://www.exida.com/Germany/Schedule

Location: selectable, in-house or public trainings please refer to
http://www.exida.com/Germany/Schedule

Participants: suggestion max. 12 per training

For more information, please contact:

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Content:

- One day training on development of Software with Functional Safety, Verification & Testing techniques according to IEC 61508

- Addressing the process requirements and the required tool set from the IEC 61508 tables

- System-level (item verification) and hardware/software interface related issues are mentioned on a summarizing level to provide a comprehensive understanding of Functional Safety Management of the Software

Who should attend?

- Development Engineers (System, Software)

- Safety Managers

- Software Project Leaders

- Software Quality Responsible

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Agenda

- From concept to system decomposition:
    - What software people have to know about system and hardware decisions
- Software Development (IEC 61508 - Part 3)
    - Content of the SW Safety Process
- SW Safety Specification and requirements allocation
- SW Architecture: How to do it, how to use it
- SW related methods, measures and techniques
    - How to deal with the tables in the IEC 61508
    - exemplification: Software planning using an UML tool (Enterprise Architect)
- Partitioning, protection of interference freeness,
    - runtime measures for detecting residual errors in software
    - exemplification: typical solutions
- SW Safety Verification
    - Requirements on Verification
    - SW Analysis Techniques
        - SW Criticality Analysis
        - SW Dependent Failure Analysis
    - SW Testing Techniques
        - Requirements based (Equivalence Classes, Boundary Values, etc.)
        - Structure based (Statement Coverage, MCDC, Call Coverage, etc.)
    - Examples and Exercises with example solutions
- Tool qualification