Functional Safety Software Training

SRES

Date:	**On Request**
Duration:	**1 Day**
Location:	**Private Virtual or In-Person**
Price:	**On Request**

Why SRES?

At SRES, our training courses are guided by industry professionals with extensive real-world experience, providing you with practical insights and knowledge to excel in the rapidly evolving fields of Functional Safety, Cybersecurity, and Responsible AI.

Course Overview:

This one-day training course delves into the realm of automotive functional safety in the development of embedded software, following the guidelines outlined in Part 6 of the ISO 26262 standard. The course starts with an overview of the ISO 26262 functional safety standard, introducing key concepts like automotive safety integrity level (ASIL) ratings, safety requirements, the safety life cycle, and safety management. A comprehensive exploration of the software safety life cycle, complete with illustrative examples, is provided, along with coverage of related topics such as tool qualification, component qualification, and freedom from interference. More advanced topics such as open source software, Linux and Operating Systems are also addressed.

Training Objectives:

Upon successfully completing this workshop, participants will gain the skills to develop comprehensive and coherent software safety requirements. They will be adept at defining and documenting software architectures, as well as implementing and testing software units tailored for safety applications. The workshop equips individuals to strategically plan and execute integration tests for both software and systems.

Agenda

- **General topics for the product development at the software level**
    - **MISRA C**
    - **Confidence in the use of software tools (ISO 26262-8:2018, 11)**
- **Specification of software safety requirements**
- **Software architectural design**
    - **Software safety analyses**
- **Software unit design and implementation**
    - **Qualification of software components (ISO 26262-8:2018, 12)**
- **Software unit verification**
    - **Static analyses (tool examples)**
    - **Software metrics**
- **Software integration and verification**
- **Testing of the embedded software**
    - **Software Configuration**
- **Advanced topics**
    - **ISO/PAS 8926:2024**
    - **Linux and other open source software elements**
    - **Software watchdog concepts**