MICROSAR Safety

Agenda VectorAcademy

Delivery Format:	This Course is offered in Classroom **or** Remote Format
Duration:	Classroom: 1 day Remote: 7 hours
Target Group:	Developers of ECUs with safety-related functions according to ISO 26262, Safety Managers
Prerequisites:	Participation in "AUTOSAR Classic Platform Course" or a good knowledge about AUTOSAR Classic Platform, good knowledge of ISO 26262
Goal:	Fundamental knowledge of the technical concept of MICROSAR Safe, learning how to work with the MICROSAR Safe Solution

1. **Overview of the Concepts used in MICROSAR Safe | 0.5 h**
   - Explanation of important topics and terms of ISO 26262, e.g. freedom from interference
   - Mixed-ASIL-Systems

2. **Measures and Mechanisms for Functional Safety at Software Level | 0.75 h**
   - Basic principles and technical concepts of MICROSAR Safe
   - Description of the Freedom from Interference

3. **Memory Protection and Safe Context Switch (SafeOS) | 1.5 h**
   - Software partitioning, application and configuration of the MPU
   - Approach to application, configuration and integration

4. **Flow Control of Safety-related Software Components (SafeWDG) | 1.75 h**
   - Control methods of Safe Watchdog
   - Configuring and applying the Safe Watchdog Manager Module

5. **Safe Communication between ECUs (SafeE2E) | 1.5 h**
   - Error detection methods of the E2E Library
   - Application of the Protection Wrapper

6. **MICROSAR Safe at Application Level (SafeRTE) | 1.0 h**
   - Applying the RTE in ECUs with safety-related functions
   - Applying the RTE and Protection Wrapper