

MICROSAR Safety Advanced Course

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 Basic 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

- > 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

- > Basic principles and technical concepts of MICROSAR Safe
- > Description of the Freedom from Interference

3. Memory Protection and Safe Context Switch (SafeOS)

- > Software partitioning, application and configuration of the MPU
- > Approach to application, configuration and integration

4. Flow Control of Safety-related Software Components (SafeWDG)

- > Control methods of Safe Watchdog
- > Configuring and applying the Safe Watchdog Manager Module

5. Safe Communication Between ECUs (SafeE2E)

- > Error detection methods of the E2E Library
- > Application of the Protection Wrapper

6. MICROSAR Safe at Application Level (SafeRTE)

- > Applying the RTE in ECUs with safety-related functions
- > Applying the RTE and Protection Wrapper