

# MICROSAR Safety Advanced Course

Agenda VectorAcademy

<b>Delivery Format:</b>	This Course is offered in Classroom <b>or</b> Remote Format
<b>Duration:</b>	Classroom: 1 day Remote: 7 hours
<b>Target Group:</b>	Developers of ECUs with safety-related functions according to ISO 26262, Safety Managers
<b>Prerequisites:</b>	Participation in "AUTOSAR Classic Platform Basic Course" or a good knowledge about AUTOSAR Classic Platform, good knowledge of ISO 26262
<b>Goal:</b>	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