

MICROSAR Cybersecurity Advanced Course

Agenda VectorAcademy

Delivery Format:	This Course is offered in Classroom or in Remote Format
Duration:	Classroom: 1 day Remote: 6 hours
Target Group:	ECU Developers
Prerequisites:	Participation in the "AUTOSAR Classic Platform Basic Course" Training or good knowledge about AUTOSAR Classic Platform
Goal:	Obtain an overview on the usage of Cybersecurity in an AUTOSAR based ECU and acquire practical skills to configure a MICROSAR Cybersecurity Basic Software

1. Introduction to Basics in Automotive Cybersecurity

- > Motivation for Cybersecurity in the Vehicle
- > Goals of Cybersecurity
- > Security Principles and General Approaches
- > Basics of Crypto Primitives
- > Solutions for Implementing Security Primitives
- > Use Cases

2. Basic Concepts

- > Basic Concepts Primitives
- > Basic Concepts Keys
- > Basic Concepts Jobs
- > Basics AUTOSAR Crypto Stack

3. MICROSAR Csm

- > Overview
- > Crypto Jobs and Services
- > Csm Key, Csm Queues and Csm Primitives
- > Scheduling of Jobs
- > Additional Features

4. MICROSAR CryIf

- > Overview
- > CryIf Channels and CryIf Keys
- > Supporting Multiple Crypto Modules

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5. MICROSAR Crypto

- > Overview
- > Crypto Driver Objects
- > Key Attributes
- > Types of Crypto Drivers
- > MICROSAR Crypto(SW) Extensions

6. MICROSAR KeyM

- > Overview
- > Use Case: Diagnostic Access to ECUs
- > Use Case: Secure Communication (Transport Layer Security = TLS)
- > Digression Certificates
- > Certificate Management Submodule
- > Interaction within the BSW Stack