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 mplementing 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 CfyIf

- Overview
- CryIf channels and CryIf eys
- Supporting multiple crypto modules

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5. MCIROSAR 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