



# Agenda VectorAcademy

## AUTOSAR IN PRACTICE

<b>Duration:</b>	3 Days
<b>Target Group:</b>	ECU Developers of automobile suppliers and OEMs
<b>Prerequisites:</b>	Participation in the AUTOSAR seminar or good AUTOSAR knowledge
<b>Goal:</b>	Handling of Vector AUTOSAR solution

### 1 | OVERVIEW AND INTRODUCTION | 0.75 H

- ▶ Combinations of AUTOSAR, MICROSAR, DaVinci
- ▶ Mapping between AUTOSAR methodology and the Vector tool chain

### 2 | OPERATING SYSTEM | 1.0 H

- ▶ Basic understanding of the mediums and mechanisms of the AUTOSAR operating system
- ▶ Tasks, alarms, events, AUTOSAR SCs

### 3 | SOFTWARE COMPONENTS (WITH EXERCISES) | 2.25 H

- ▶ Handling of DaVinci developer and RTE
- ▶ Design of software components, ports, connections, task mapping and creation of the RTE

### 4 | INPUT AND OUTPUT (WITH EXERCISES) | 3.5 H

- ▶ Data exchange with I/O modules
- ▶ Configuration of the basic software for the I/O with the MICROSAR configuration suite

### 5 | COMMUNICATION (WITH EXERCISES) | 3.25 H

- ▶ Data exchange over CAN
- ▶ Configuration of the basic software for the communication with the MICROSAR configuration suite



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## 6 | STATE MANAGEMENT AND SYSTEM SERVICES (WITH EXERCISES) | 2.25 H

- ▶ Sleep and wake up of ECUs and bus
- ▶ Roles of the ComM and EcuM, Mode Management concept and mechanisms

## 7 | BUS SYSTEMS (MATERIAL FOR REFERENCE)

- ▶ Understanding the conceptual differences of the bus systems and the importance of the configuration of the basic software
- ▶ CAN, LIN, FlexRay

## 8 | NONVOLATILE MEMORY ACCESS (WITH EXERCISES) | 3.5 H

- ▶ Nv Memory accesses with AUTOSAR
- ▶ Configuration of the basic software for nonvolatile memory access

## 9 | DIAGNOSTICS (WITH EXERCISES) | 4.5 H

- ▶ Diagnostics with AUTOSAR
- ▶ Configuration of the diagnostics basic software by the MICROSAR configuration suite