



# Agenda VectorAcademy

## CANBEDDED WORKSHOP – THEORY AND EXERCISES

<b>Duration:</b>	2 Days
<b>Target Group:</b>	Certified suppliers of the vehicle manufacturer industry. A corresponding certificate has to be sent together with the final announcement
<b>Prerequisites:</b>	Basic knowledge of CAN and programming in C
<b>Goal:</b>	Knowledge of the CANbedded concepts and interoperation of the components.

### 1 | OVERVIEW | 1.5 H

- ▶ Overall view of CANbedded Software Components and their interaction
- ▶ Short introduction, tool chain, network data base (dbc), configuration tool, exercises (code examples)

### 2 | CAN DRIVER | 2.5 H

- ▶ Understanding of the CAN Driver and the cooperation with the application
- ▶ Initialization, transmission and reception, notification, overrun and error handling, sleep mode and wake-up

### 3 | INTERACTION LAYER | 2.5 H

- ▶ Understanding of the Interaction Layers advantage for transmission and reception of messages (signals), deepen your signal oriented sight
- ▶ Transmission types, monitoring of receive messages, signal interface, notification of application

### 4 | OSEK NETWORK MANAGEMENT | 2.5 H

- ▶ Basic understanding of the control of the bus via the network management
- ▶ Algorithm, bus sleep and wake-up, error handling, hardware selection

### 5 | TRANSPORT PROTOCOL | 1.5 H

- ▶ Understanding of function and advantage of the transport protocol
- ▶ Algorithm, parameters, addressing, message layout, error handling



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## 6 | **DIAGNOSTICS LAYER | 2.0 H**

- ▶ Usage of diagnostics layer and integration in the application
- ▶ Services, exceptions, CAN-specifics, timings, addressing, data exchange with the application

## 7 | **ADDITIONAL ASPECTS | 1.0 H**

- ▶ Better understanding in connection with the specific feature of the vehicle manufacturers
- ▶ OEM-specific infrastructure

## 8 | **QUESTIONS, SUGGESTIONS, REQUESTS**