



Agenda VectorAcademy

SERIAL BUS SYSTEMS IN VEHICLES - CAN AND LIN

Duration:	1 Day
Target Group:	Project Managers, Developers, Users
Prerequisites:	None
Goal:	Understanding the different bus systems, their topologies, physical as well as functional properties, their advantages and disadvantages in their deployment as communication media in embedded systems

1 | INTRODUCTION TO SERIAL BUS SYSTEMS IN VEHICLES | 2.0 H

- ▶ Electronification of vehicles, setup of electronic control units, typical architectures of embedded systems
- ▶ Motivation of the deployment of serial bus systems, fundamentals of serial communication (e.g. addressing, framing, data protection, bus access and synchronisation)
- ▶ Typical communication architectures of serial bus systems, serial bus systems and areas of their deployment

2 | INTRODUCTION TO CAN (CONTROLLER AREA NETWORK) | 2.5 H

- ▶ CAN characteristics
- ▶ CAN specification
- ▶ Communication architecture
- ▶ CAN framing, bus access
- ▶ Data protection
- ▶ Synchronisation

3 | INTRODUCTION TO LIN (LOCAL INTERCONNECT NETWORK) | 2.5 H

- ▶ LIN work flow, LIN characteristics
- ▶ LIN specification
- ▶ Communication architecture
- ▶ LIN framing
- ▶ Bus access, scheduling
- ▶ Status and network management, synchronisation
- ▶ Diagnostics