



Agenda VectorAcademy

CAN FUNDAMENTALS

Duration:	1 Day
Target Group:	CAN Users
Prerequisites:	None
Goal:	Knowledge about serial bus systems in motor vehicles, physical characteristics of a CAN network and characteristics of the CAN protocol.

1 | INTRODUCTION TO SERIAL BUS SYSTEMS IN MOTOR VEHICLES | 1.0 H

- ▶ Electrification of motor vehicles
- ▶ Motivation for use of serial bus systems in motor vehicles
- ▶ Basics of serial data transmission
- ▶ Architecture of serial bus systems in motor vehicles
- ▶ Serial bus systems and their use cases in motor vehicles

2 | INTRODUCTION TO CAN | 0.5 H

- ▶ Standards and implementation
- ▶ Components: Controller, Transceiver
- ▶ High/Low Speed CAN

3 | PHYSICAL CHARACTERISTICS OF A CAN NETWORK | 1.0 H

- ▶ Signal transmission and voltage levels
- ▶ Bus speeds
- ▶ Node architecture and termination
- ▶ Physical failures

4 | CHARACTERISTICS OF THE CAN PROTOCOL | 3.5 H

- ▶ Bus access method
- ▶ Message formats
- ▶ Error detection and signaling
- ▶ Error handling and tracking
- ▶ Bit timing and synchronization