

# LIN Fundamentals

## Agenda VectorAcademy

<b>Duration:</b>	1 Day
<b>Target Group:</b>	LIN Users
<b>Prerequisites:</b>	None
<b>Goal:</b>	Knowledge about serial bus systems in motor vehicles, physical characteristics of LIN networks and the characteristics of the LIN protocol

### 1 | Introduction to Serial Bus Systems in Vehicles 1.0 h

- > Electronics in vehicles, motivation for applying serial bus systems in vehicles
- > Fundamentals of serial data transmission, communication architectures
- > Serial bus systems and their application domains in vehicles

### 2 | Fundamentals of the LIN Protocol 3.0 h

- > LIN network architecture, communication principal
- > Synchronization, securing data
- > LIN frame, frame transmission, frame types
- > Frame slots, scheduling
- > Network and status management

### 3 | LIN Network Description 0.5 h

- > LIN Description Language
- > LIN Description File (LDF)

### 4 | LIN Network Configuration 2.0 h

- > Concept of LIN slave diagnostics, structure of diagnostic frames
- > Concept of the LIN slave configuration with special services
- > Node Capability File (NCF), system defining process

### 5 | LIN Hardware 0.5 h

- > LIN hardware interface (UART, LIN UART, LIN-Controller)
- > LIN transceiver