

# LIN Basics

<b>Duration:</b>	1 Day
<b>Target group:</b>	LIN users
<b>Prerequisites:</b>	none

## 1 Introduction to LIN (Local Interconnected Network) (0,5 h)

Goal: Get to know the LIN-technology

Contents: Motivation for applying LIN in motor vehicles, field of application, LIN-Specification, LIN-Features, Work Flow Concept, Node Concept

## 2 Fundamentals of the LIN Protocol (3,0 h)

Goals: Build up an understanding of LIN protocol basics

Contents: LIN network structure, principle of communication, framing (frame types, frame slots), scheduling, task behaviour model, network management, status management, synchronisation, data save, milestones of LIN development, LIN Specification

## 3 Fundamentals of the LIN Network Description (0,5 h)

Goals: Build up an understanding of LIN network description

Contents: LIN configuration language specification, LIN Description File (LDF)

## 4 Fundamentals of the LIN Network Configuration (1,5 h)

Goals: Build up an understanding of LIN network configuration

Contents: System defining process, functions and services, LIN node capability language specification, Node Capability File (NCF)

## 5 Fundamentals of the LIN Diagnostics (0,5 h)

Goals: Build up an understanding of LIN diagnostics

Contents: Diagnostic frame management, diagnostic frame structure

## 6 LIN Hardware (0,5 h)

Goals: Get to know LIN hardware

Contents: LIN hardware interface (UART, LIN UART, LIN-Controller), LIN-Transceiver

## 7 Vector LIN-Driver (0,5 h)

Goals: Get to know a LIN implementation

Contents: Vector LIN-Driver, LIN node configuration, diagnostics