

Serial bus system in motor vehicles (CAN / LIN)

Duration: 1 Day

Target group: Project executives, developers, users

Prerequisites: none

1 Introduction to serial bus systems in motor vehicles (2,0 h)

Goal: Build up an understanding of serial bus systems respectively serial communications in motor vehicles; build up an understanding of the most important serial bus systems in motor vehicles

Contents: Electronics in motor vehicles, motivation for application serial bus systems, serial bus system basics, ISO/OSI model of data communication, serial bus systems and their application in motor vehicles, serial communication basics (addressing, framing, data protection, bus access, synchronization)

2 Introduction to CAN (Controller Area Network) (2,5 h)

Goal: Build up an understanding of CAN technology and CAN protocol basics

Contents: Fields of application, CAN characteristics, CAN specification, principle of communication, network structure, framing, media access control, data protection

Examples and practices with CANscope and CANalyzer

3 Introduction to LIN (Local Interconnected Network) (2,5 h)

Goal: Build up an understanding of LIN technology and LIN protocol basics version 2.1, Working in a LIN cluster

Contents: Fields of application, LIN characteristics LIN specification, LIN work flow, network structure, framing, bus access, scheduling, status and network management, synchronization, diagnostics
Examples and practices with CANscope and CANalyzer