

Application-oriented Protocols in CANoe.Ethernet

Agenda VectorAcademy

Duration:	1 Day
Target Group:	Users of CANoe.Ethernet
Prerequisites:	Knowledge about Ethernet and IP basics, participation in a CANoe/CANalyzer Basic course (CAN, LIN, FlexRay, J1939, ISO11783) or comparable knowledge. Knowledge about CANoe/CANalyzer.Ethernet.
Goal:	Deepen knowledge of Application Oriented Protocols in vehicles: DoIP, AVB/TSN, XCP, SOME/IP.

1 | Introduction 0.5 h

- > Overview of used protocols and their application areas

2 | DoIP: Diagnostics over IP 1.0 h

- > Introduction to DoIP and its use cases
- > DoIP with CANoe.Ethernet

3 | AVB/TSN: Audio Video Bridging/Time Sensitive Networking 2.5 h

- > Introduction to AVB/TSN and its protocol layers
- > Time Aware System, Quality of Service, Transport Protocol in AVB/TSN Networks
- > Measurement and analysis with CANoe

4 | XCP on Ethernet: Measurement Data Collection and Calibration 0.5 h

- > XCP on Ethernet compared to XCP on CAN
- > Requirements and advantages of XCP on Ethernet
- > Evaluation of a measurement and calibration job with CANoe

5 | SOME/IP: Scalable service-Oriented MiddlewarE over IP 2.0 h

- > Introduction to SOME/IP and its use cases
- > Measurement and analysis with CANoe
- > Set up a remaining bus simulation with CANoe

6 | Discussion with Experts from the Specialist Department 0.5 h