

Digital Communication in Vehicles [compact]

Agenda VectorAcademy

Delivery Format:	This Course is offered in Remote Format
Duration:	6 hours
Target Group:	Newcomers, retrainers and transferors in the automotive sector
Prerequisites:	None
Goal:	Become familiar with the systems in automotive digital communication. Gain knowledge about their historical and technical characteristics. Understand basic principles, use cases and differences, and develop a sense of their characteristics and complexity.

1. Motivation, history & basic knowledge

- > Electronification in the automotive industry
- > Technology change - introduction to analog/digital conversion and number systems
- > Digital user information and transmission principles

2. Physical & Logical layer

- > Transmission media & topologies
- > Bitserial data transmission & interference effects
- > Data protection & error handling
- > Communication protocols, tasks, application areas and performance characteristics

3. Communication principles

- > Signal-Oriented Communication
- > Service-Oriented Communication

4. Summary

- > Profiles of CAN (FD), LIN, FlexRay, Automotive Ethernet
- > Things to know