



Agenda VectorAcademy

FLEXRAY FUNDAMENTALS

Duration:	1 Day
Target Group:	FlexRay Users, ECU Developers
Prerequisites:	Basic understanding of serial data transmission
Goal:	Knowledge about physical characteristics of a FlexRay network and characteristics of the FlexRay protocol.

1 | INTRODUCTION TO FLEXRAY | 1.0 H

- ▶ Electronification of motor vehicles
- ▶ Motivation for the development of FlexRay
- ▶ FlexRay consortium and specification
- ▶ Differences between CAN and FlexRay

2 | PHYSICAL TOPOLOGIES AND SIGNAL TRANSMISSION | 1.0 H

- ▶ Physical topologies
- ▶ Signal transmission and voltage levels
- ▶ Node architecture and termination

3 | SYNCHRONIZATION | 2.0 H

- ▶ Synchronization mechanism
- ▶ Wakeup and startup
- ▶ Time hierarchy
- ▶ Re-Synchronization on bit level

4 | COMMUNICATION STRUCTURE AND BUS ACCESS | 3.0 H

- ▶ Communication cycle
- ▶ Static and dynamic segment
- ▶ Frame format
- ▶ Bus access