

# ECU Tests with CANoe

## Agenda VectorAcademy

<b>Delivery Format:</b>	This Course is offered in Classroom <b>or</b> Remote Format.
<b>Duration:</b>	Classroom: 2 days Remote: 14 hours
<b>Target Group:</b>	CANoe users in the test field
<b>Prerequisites:</b>	None Please carry out the CAPL E-Learning provided before the training if you have no or little programming experience. You will receive the link to the CAPL Basics E-Learning prior to the course start.
<b>Goal:</b>	Using CANoe as a testing tool, programming CAPL Test Modules, diagnostic features for ECU tests, Using measurement hardware (VT System), ECU memory access via XCP

### 1. CANoe Quick Start

- > CANoe basics
- > Interaction Layer

### 2. Introduction to CAPL Test Modules

- > CANoe Test Features overview
- > Test Environment, Test Modules, Test Execution Dialog
- > Test Module configuration
- > Flow control, Test Groups, Test Cases, Test Steps
- > Test Report generation
- > Execution options

### 3. Programming CAPL Test Modules

- > Stimulation and wait points
- > Semi-automatic tests
- > Signal oriented tests
- > CANoe Interaction Layer manipulation for testing purposes
- > CAPL Test Functions for efficient test implementation
- > Constraints and conditions
- > Stimulus functions

### 4. Introduction to Diagnostics

- > Diagnostics and transport protocols
- > Configuration of diagnostic descriptions (CDD, ODX, ...)
- > Introduction to CANoe's Diagnostic Feature Set

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### 5. Using Diagnostic CAPL Functions

- > Diagnostic requests and diagnostic responses
- > Evaluation of diagnostic parameters
- > Using Seed & Key DLLs
- > Diagnostic tests with CAPL

### 6. Tests using measurement hardware

- > System variables
- > Using measurement and test hardware based on the VT System (Overview)

### 7. Tests with XCP

- > Introduction XCP protocol
- > XCP configuration in CANoe
- > Measure ECU internal variables
- > ECU Tests with XCP