

# ECU Tests with CANoe

## Agenda VectorAcademy

<b>Duration:</b>	2 Days
<b>Target Group:</b>	CANoe users in the test field
<b>Prerequisites:</b>	None
<b>Goal:</b>	Using CANoe as a testing tool, programming CAPL test modules, diagnostic features for ECU tests, Using measurement hardware, ECU memory access via XCP

### 1 | CANoe Quick Start 0.5 h

- > CANoe basics
- > Interaction Layer

### 2 | Introduction to CAPL Test Modules 1.5 h

- > 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 6.5h

- > 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

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### 4 | Introduction to Diagnostics

1.0h

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

### 5 | Using Diagnostic CAPL Functions

1.5h

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

### 6 | Tests using measurement hardware

1.5h

- > System variables
- > Using measurement and test hardware

### 7 | Tests with XCP

1.5h

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