

# Automotive Security Testing (paid course)

## Agenda VectorAcademy

<b>Delivery Format:</b>	This Course is offered in Classroom Format
<b>Duration:</b>	1 day
<b>Target Group:</b>	For practitioners in the automotive industry who want to learn about and work on cybersecurity testing
<b>Prerequisites:</b>	Software development V model, basic testing process
<b>Goal:</b>	Understand the basic principles of automotive cybersecurity testing and related test environment setup, master Vector fuzz testing and penetration testing methodology

### 1. Risks and challenges in automotive cybersecurity

- > Industry Trend Survey and Interpretation
- > Risk and Challenge Analysis

### 2. Industry terminology, regulations and international standards

- > Introduction to industry terminology
- > Interpretation of ISO 21434

### 3. Security Testing Methods

- > Secure Coding: Code Quality Analysis
- > Fuzzing: Signal Fuzzing and Frame Fuzzing
- > Penetration Testing: Introduction of Grey Box Penetration Testing 10 Steps and Case Study

### 4. Cybersecurity Testing Practices

- > Software/hardware tools and test setup involved in security testing
- > Prerequisites for fuzzing and penetration testing
- > Demo: Online fuzzing based on ECU simulator