

# AUTOSAR Adaptive Platform Basic Course

Agenda VectorAcademy

<b>Delivery Format:</b>	This Course is offered in Classroom or Remote Format
<b>Duration:</b>	14 hours
<b>Target Group:</b>	Project Leader, AUTOSAR ECU Developer and User
<b>Prerequisites:</b>	Knowledge about software development for automotive systems
<b>Goal:</b>	General view of AUTOSAR Adaptive Platform

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**Evaluation:**

Validation of learning based on practical exercises.

**Pedagogical, technical and supervisory resources:**

Course material is sent to each trainee. The training will be carried out in adapted rooms.  
Competence of the trainer: engineer experienced on AUTOSAR.

**Method of follow-up of the trainee:**

A sign-off sheet must be validated by the trainee. A first satisfaction questionnaire is planned at the end of the training.

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**1. Overview and Objectives**

- > Motivation and aims
- > Organization and schedule

**2. Methodology**

- > Overview and data exchange formats

**3. AUTOSAR Adaptive Application**

- > Basic principles and technical concepts
- > AUTOSAR design elements

**4. Execution Managements**

- > Adaptive AUTOSAR startup behavior
- > Function groups and the machine states

**5. Exercise 1**

- > Create your first Adaptive Application

**6. Service Oriented Communication**

- > Service oriented communication principles
- > Service Discovery

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## 7. Communication Management

- > Architecture

## 8. Manifest

- > Methodology workflow
- > AUTOSAR Manifest file types

## 9. Exercise 2.1

- > Add ara::com Provider to Application

## 10. Exercise 2.2

- > Add ara::com Consumer to Application

## 11. Persistency

- > Key value storage
- > Files value storage

## 12. Excerise 3

- > Add ara::per to Application

## 13. Security

- > Secure communication
- > Cryptography

## 14. Functional Safety

- > General introduction
- > Safety concepts and features

## 15. Diagnostics Managements

- > Unified Diagnostic Services

## 16. Update and Config Management

- > Software package
- > Software component