AUTOSAR Adaptive Platform Basic Course

Agenda VectorAcademy

Delivery Format:	This Course is offered in Classroom, Remote **or** Blended Learning Format. In the case of Blended Learning the content will be learned via E-Learning in a period of two weeks and there will be 5 accompaning remote sessions.
Duration:	Classroom: 2 days Remote: 14 hours Blended Learning: approx. 25 hours of self-study + 9 hours of remote sessions (see schedule below)
Target Group:	Project Leader, AUTOSAR ECU Developer and User
Prerequisites:	Knowledge about software development for automotive systems
Goal:	General view of AUTOSAR Adaptive Platform

1. **Overview and Objectives**
   - Motivation and aims
   - Organization and schedule
2. **Methodology**
   - Overview and data exchange foramts
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
7. **Communication Management**
   - Architecture

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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

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Schedule for Blended Learning:

Study Phase 1
- Overview and Objectives
- Methodology
- AUTOSAR Adaptive Applications
- Execution Management
- **Exercise 1**

Day 1: Preparation Webex Session

Study Phase 2
- Service Oriented Communication
- Communication Management
- Manifest
- **Exercise 2**

Day 3: Question & Answer Webex Session (Study Phase 1)

Study Phase 3
- Persistency
- **Exercise 3**

Day 6: Question & Answer Webex Session (Study Phase 2)

Study Phase 4
- Security
- Functional Safety
- Diagnostic Management
- Update and Config Management

Day 7: Question & Answer Webex Session (Study Phase 3)

Day 9: Question & Answer Webex Session (Study Phase 4)