



Autonomous Vehicles Deployment Course: AV Pilots, Robotaxis, Safety Cases and Operations

28 March – 1 April 2027

Riyadh - KAFD district five-star



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Ref: 1874_28298 **Date:** 28 March – 1 April 2027 **Location:** Riyadh - KAFD district five-star **Fees:** 20000 SAR

Introduction:

Autonomous vehicles deployment, covering AV pilots, robotaxis, safety cases and operations, is a 5-day course for mobility programme, transport authority and AV service operator teams that ends with an AV Pilot Deployment and Safety Case Plan for a case organisation. Driverless shuttle and robotaxi trials stall when the operating domain is vague, the safety argument is thin, remote supervision is unstaffed and liability stays unresolved. Nominees already oversee mobility projects or transport services and work through case studies built on ODD descriptions, hazard logs and pilot service data. CoreConcept Training Center delivers this autonomous vehicles deployment course.

Course Objectives:

- Define the operational design domain of a driverless service using SAE J3016 automation levels and the PAS 1883 ODD taxonomy
- Assemble an AV safety case with claims, arguments, evidence and safety performance indicators structured on ANSI/UL 4600 and ISO 21448
- Design a pilot zone with route geofence, stop locations, fallback minimal risk manoeuvres and a phased expansion gate
- Organise a remote operations centre with teleassistance roles, vehicle-to-supervisor ratios and incident escalation rules
- Assess V2X and roadside infrastructure readiness, connectivity coverage and data-sharing arrangements for an AV corridor
- Allocate liability and insurance cover among owner, operator and vehicle supplier and set robotaxi service KPIs for go or no-go decisions

Target Audience:

- Mobility programme units responsible for introducing driverless shuttles or robotaxis in large new developments and districts
 - Transport authority teams responsible for permitting, supervising and evaluating automated vehicle trials
 - AV service operator teams responsible for fleet deployment, remote supervision and day-to-day service performance
 - Safety assurance and risk teams responsible for reviewing safety cases, hazard logs and incident investigations
 - Infrastructure and connectivity teams responsible for roadside units, mapping data and network coverage on AV routes
 - Commercial and legal teams responsible for operator contracts, insurance cover and liability allocation
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Course Outline:

Day 1: Driverless Mobility Landscape, Automation Levels and Service Models

- SAE J3016 Levels of Driving Automation and Fallback Responsibility
- Robotaxi, Autonomous Shuttle and Automated Freight Service Models
- Robotaxi Cost per Mile and Utilisation Economics Overview
- Cooperative Versus Autonomous Vehicles Under SAE J3016 Definitions
- AV Readiness Self-Assessment for a Mobility Organisation

Day 2: ODD Specification, Safety Case Structure and Scenario Standards

- PAS 1883 Taxonomy for Scenery, Environment and Dynamic Elements
- ODD Specification Sheet With Geography, Weather and Time Limits
- ANSI/UL 4600 Safety Case Claims, Arguments and Evidence Structure
- ISO 21448 SOTIF Triggering Conditions for Deployment Hazards
- ISO 34501 Scenario Vocabulary for Pilot Test Catalogues

Day 3: Pilot Zone Design, Remote Operations and V2X Readiness

- Pilot Zone Geofence, Stop Placement and Mixed Traffic Screening
- Minimal Risk Manoeuvre and Safe Stop Location Planning
- Remote Operations Centre Roles, Teleassistance and Supervisor Ratios
- V2I Roadside Units Using C-V2X or IEEE 802.11p
- HD Map Update and Connectivity Coverage Checks Along Routes

Day 4: Liability, Insurance, Safety Performance Indicators and Incident Response

- Liability Allocation Matrix for Owner, Operator and Supplier
- Insurance Cover Options for Driverless Fleet Operations
- Safety Performance Indicators and Disengagement Trend Monitoring
- AV Incident Response Protocol With First Responder Interaction
- Public Acceptance Surveys and Passenger Trust Communication Plans

Day 5: Case Study Work and the AV Pilot Deployment and Safety Case Plan

- Case Organisation ODD Sheet and Service Model Selection
 - Case Pilot Zone Layout and Remote Supervision Staffing
 - Case Safety Case Argument Map With Evidence Gaps
 - Robotaxi Service KPI Dashboard With Expansion Gate Thresholds
 - AV Pilot Deployment and Safety Case Plan Completion and Defence
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Skills You Will Gain:

- ODD Specification
- AV Safety Case Construction
- Pilot Zone Layout
- Teleassistance Staffing
- V2X Readiness Assessment
- Liability and Insurance Structuring
- Safety Performance Indicator Monitoring
- Driverless Service KPI Design

Why Attend This Course:

- Deliver an AV Pilot Deployment and Safety Case Plan to the mobility steering committee and the safety assurance lead
- Decide when a driverless pilot may expand its zone, fleet size or operating hours based on safety performance indicators
- Avoid suspended trials, unresolved insurance claims and stranded vehicles caused by a vague ODD or unstaffed remote supervision
- Share the ODD sheet, argument map, liability matrix and KPI dashboard templates with operator, legal and infrastructure counterparts

Conclusion:

Back at work, the participant hands the AV Pilot Deployment and Safety Case Plan to the mobility steering committee, the safety assurance lead and the operator contract manager. They use it to approve the pilot zone, the remote supervision staffing, the insurance and liability terms and the indicators that gate each expansion step. After the first months of passenger service, the unit should compare disengagements, safe stops, incident handling and service KPIs with the plan, then revise the ODD sheet and the safety case evidence before widening the operating area.

Frequently Asked Questions FAQ:

What should participants know before an autonomous vehicles deployment course?

Participants should already oversee mobility projects, transport services, safety assurance or operator contracts. No software or vehicle engineering background is needed. Bringing an anonymised trial proposal, route map or hazard log helps them apply the case study to their own pilot.

How does an autonomous vehicles deployment course differ from an intelligent transport systems or driver-assistance sensor course?

It concentrates on launching and running driverless services: ODD definition, safety cases, pilot zones, remote supervision, liability and service KPIs. Transport systems courses cover signals, control centres and tolling, while driver-assistance courses cover sensor calibration and vehicle-level functional safety engineering.

Why does autonomous vehicles deployment start with the operational design domain?

The operational design domain states where, when and in which conditions the vehicle may drive without a human. Every later decision, from pilot zone boundaries and safe stop locations to remote supervision and insurance cover, depends on that boundary being written down and monitored.

What do participants take back from the autonomous vehicles deployment course?

Participants take back an AV Pilot Deployment and Safety Case Plan with an ODD sheet, safety case argument map, pilot zone layout, remote supervision staffing model, liability matrix and service KPI dashboard they can adapt to their own driverless shuttle or robotaxi pilot.