Advanced Intelligent Transportation Systems Training Course

28 February – 4 March 2027
Johannesburg

AGILE LEADERS
Training Center

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Ref: 877_166247 **Date:** 28 February – 4 March 2027 **Location:** Johannesburg **Fees:** 4500 Euro

Overview

Advanced Intelligent Transportation Systems Training Course is a one-week course for transport planners, traffic operations engineers, mobility technology specialists, infrastructure managers, and public-sector transport leaders who leave with an ITS Deployment and Operations Pack. Participants connect service architecture, traffic management, connected mobility, traveler information, real-time transport data, cybersecurity, interoperability, and performance evaluation. The course turns separate technology projects into governed transport services. Agile Leaders Training Center develops intelligent transportation systems practice.

Who Should Attend

- Transport planning functions responsible for mobility strategies and service priorities
- Traffic operations functions responsible for network monitoring and incident response
- Technology functions responsible for transport data, communications, and system integration
- Infrastructure functions responsible for roadside assets and operational readiness
- Public-sector leadership functions responsible for investment, governance, and performance

The course assumes participants already work with transport operations or infrastructure decisions; it leaves out software coding, vehicle control design, and product certification.

Departments and Industries

The course supports departments and industries that plan, operate, integrate, or govern mobility services.

- Road authorities, traffic management centers, and public transport operations
- Ports, airports, logistics networks, and freight corridors
- Engineering consultancies, system integrators, and communications providers
- Urban planning, emergency services, and critical infrastructure functions
- Automotive mobility, connected services, and transport data organizations

Learning Objectives

By the end of this course, participants will be able to:

- Build an ITS service architecture from operational needs.
- Analyze traffic, traveler, sensor, and connected-mobility data flows.
- Apply interoperability and interface controls across system boundaries.
- Evaluate ITS cybersecurity, resilience, and operational readiness.
- Prioritize deployment options using benefits, costs, risks, and performance measures.
- Build an ITS Deployment and Operations Pack.

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Course Agenda

Day 1: Frame ITS Services and Architecture

- ISO 14813-1 ITS Service Domain Map
- Operational Need and User Service Canvas
- Traffic Management Center Capability Model
- Stakeholder, Asset, and Service Boundary Diagram
- ITS Use-Case Priority Matrix

Day 2: Design Data and Interoperability

- Roadside Sensor and Data Source Inventory
- Real-Time Transport Data Flow Map
- Interface and Interoperability Requirements Matrix
- Traveler Information Exchange Design
- Data Quality and Lineage Control Register

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Day 3: Integrate Traffic and Connected Mobility

- Corridor Traffic Management Operating Concept
- Incident Detection and Response Workflow
- Connected Mobility Message Path Diagram
- Multimodal Service Coordination Model
- Control-Center Decision and Escalation Matrix

Day 4: Govern Security and Performance

- NIST Cybersecurity Framework 2.0 Outcome Profile
- ITS Asset Threat and Dependency Assessment
- Defense-in-Depth Control Map
- Mobility, Safety, and Reliability Measure Dictionary
- Benefits, Costs, Risks, and Readiness Scorecard

Day 5: Practice ITS Deployment Decisions

- Exercise: Validate an ITS Service Architecture
- Exercise: Diagnose a Transport Data-Flow Failure
- Exercise: Evaluate a Secure Control-Center Scenario
- Exercise: Prioritize a Corridor Deployment Portfolio
- Capstone: ITS Deployment and Operations Pack

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Practical Exercises

The course uses suggested activities based on road networks, public transport, logistics corridors, and emergency operations.

- Suggested activity: map operational needs to ITS services, assets, interfaces, and owners.
- Suggested activity: trace sensor and connected-mobility data through a traffic management decision.
- Suggested activity: assess cyber dependencies, failure paths, and layered controls.
- Suggested activity: defend a deployment roadmap using readiness and performance evidence.

FAQs

Who suits advanced intelligent transportation systems training, and what does it assume?

Transport planning, traffic operations, mobility technology, infrastructure, and public leadership functions suit the training. It assumes regular involvement in transport operations or infrastructure decisions.

How does intelligent transportation systems training differ from general traffic management training?

Intelligent transportation systems training integrates architecture, communications, data, connected mobility, cybersecurity, interoperability, and evaluation, while general traffic management training concentrates more narrowly on network operations and control practices.

Why does ITS architecture matter in transport deployment?

ITS architecture links user needs, services, assets, interfaces, data, and responsibilities so separate components can operate as a coordinated transport service.

How is ITS cybersecurity evaluated?

ITS cybersecurity is evaluated through asset and dependency mapping, threat scenarios, outcome-based controls, defense in depth, incident readiness, and operational recovery requirements.

How is intelligent transportation system performance measured?

ITS performance is measured with defined mobility, safety, reliability, service, data-quality, and operational-readiness indicators tied to intended use cases.

Conclusion

Participants take back an ITS Deployment and Operations Pack containing service maps, data-flow views, interface controls, operating concepts, cyber controls, measures, and a deployment roadmap. It changes disconnected technology proposals into traceable service decisions. The pack supports coordinated investment, operational ownership, and evidence-based review.