Smart Mobility Infrastructure Training Course

Professional Development Training Course Outline

Category	Construction Institute	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Smart Mobility Infrastructure Training Course is designed to equip professionals with advanced knowledge of intelligent transportation systems (ITS), digital mobility ecosystems, sustainable urban mobility, connected infrastructure, and next-generation transportation solutions. As cities worldwide transition toward smart cities, autonomous mobility, electric transportation, and data-driven urban networks, this course provides practical insights into designing, implementing, and managing resilient mobility infrastructure using emerging technologies such as Artificial Intelligence (AI), Internet of Things (IoT), Big Data Analytics, 5G connectivity, cloud platforms, and digital twins.

The course explores global best practices and real-world applications in smart roads, connected vehicles, intelligent traffic management, electric vehicle (EV) charging networks, mobility-as-a-service (MaaS), sustainable transportation systems, and urban mobility innovation. Through industry case studies, interactive learning, and practical frameworks, participants will develop the skills required to create efficient, safe, inclusive, low-carbon, and technology-enabled mobility ecosystems that support future-ready communities and smart urban development.

Programme Curriculum

Smart Mobility Infrastructure Training Course

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Course Duration

5 days

Course Objectives

By completing this Smart Mobility Infrastructure Training Course, participants will be able to:

1. Understand the fundamentals of smart mobility transformation and digital transportation ecosystems.
2. Develop strategies for implementing Intelligent Transportation Systems (ITS) in urban environments.
3. Apply AI-powered traffic management and predictive mobility analytics solutions.
4. Design sustainable infrastructure supporting electric vehicles (EVs) and clean mobility networks.
5. Explore the integration of Internet of Things (IoT), sensors, and connected infrastructure.
6. Analyze the role of 5G, edge computing, and real-time data platforms in mobility systems.
7. Implement Mobility-as-a-Service (MaaS) frameworks for integrated transportation.
8. Understand autonomous vehicle infrastructure requirements and connected vehicle technologies.
9. Apply smart city planning principles for future mobility development.
10. Evaluate cybersecurity and data privacy challenges in digital mobility systems.
11. Use digital twin technology for mobility planning, simulation, and optimization.
12. Develop sustainable transportation solutions aligned with Net Zero and climate resilience goals.
13. Identify global trends, innovations, and best practices in next-generation mobility infrastructure.

Target Audience

1. Transportation engineers and infrastructure professionals
2. Urban planners and smart city development specialists
3. Government officials and transport policymakers
4. Civil engineers and mobility consultants
5. IT professionals working in IoT, AI, and digital infrastructure
6. Public transport operators and mobility service providers
7. Real estate developers and smart city project managers
8. Researchers, academics, and technology innovators

Course Modules

Module 1: Foundations of Smart Mobility Infrastructure

- Smart mobility ecosystems and transportation transformation
- Evolution from traditional transport to intelligent mobility networks
- Smart city integration and urban mobility planning
- Key technologies driving future transportation systems
- Global smart mobility trends and innovation frameworks
- **Case Study: Singapore Smart Mobility Initiative**

Module 2: Intelligent Transportation Systems (ITS)

- ITS components and operational frameworks
- Adaptive traffic signal systems
- Real-time traffic monitoring technologies
- Automated fare collection and smart ticketing
- Transportation command and control centers
- **Case Study: South Korea Intelligent Transport Systems Program**

Module 3: Connected Vehicles and Autonomous Mobility

- Vehicle-to-Vehicle (V2V) communication
- Vehicle-to-Infrastructure (V2I) networks
- Autonomous vehicle readiness planning
- Smart road infrastructure requirements
- Safety systems and mobility automation
- **Case Study: Waymo Autonomous Mobility Program**

Module 4: Electric Mobility and Sustainable Transport Infrastructure

- Electric vehicle infrastructure planning
- EV charging networks and smart charging systems
- Renewable energy integration
- Low-carbon transportation strategies
- Battery technology and energy management
- **Case Study: Norway Electric Vehicle Transition**

Module 5: AI, IoT, Big Data, and Digital Twins for Mobility

- AI-driven transportation analytics
- IoT sensors and smart infrastructure monitoring
- Predictive traffic management
- Digital twin applications in mobility planning
- Data-driven infrastructure optimization
- **Case Study: Barcelona Smart City Platform**

Module 6: Mobility-as-a-Service (MaaS) and Integrated Transport Systems

- MaaS concepts and business models
- Multimodal transportation integration
- Digital payment and mobility platforms
- Shared mobility solutions
- Customer-centric transportation design
- **Case Study: Helsinki Whim Mobility Platform**

Module 7: Smart Infrastructure Planning, Safety, and Cybersecurity

- Cybersecurity for connected transportation systems
- Data governance and privacy management
- Smart road safety technologies
- Infrastructure resilience and risk management
- Emergency response and mobility security

- **Case Study: European Cooperative Intelligent Transport Systems (C-ITS)**

Module 8: Future Mobility Innovation and Implementation Strategies

- Future mobility trends and innovation pathways
- Smart mobility investment planning
- Public-private partnership models
- Implementation roadmaps for smart transportation
- Measuring mobility performance and sustainability outcomes
- **Case Study: Dubai Smart Mobility Strategy**

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

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