MERCURY

Advanced Intelligent Transportation Systems (ITS)

5 – 16 July 2027
London (UK)



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Ref: 15181_260824 **Date:** 5 – 16 July 2027 **Location:** London (UK) **Fees:** 9500 Euro

Introduction:

Intelligent Transportation Systems ITS are increasingly expanding their presence through the introduction of Big Data, Artificial Intelligence AI, and the Internet of Things IoT. The ITS that once existed are now evolving into what can be defined as advanced intelligent transportation systems, shifting from legacy systems to ones driven by advanced technologies.

These state-of-the-art systems are becoming more user-centric, eschewing the traditional driver-focused approach to prioritize the interconnection of vehicles and infrastructure, with the ancillary users reaping the system's benefits.

Advanced Models and Technologies for Intelligent Transportation Systems:

As the field of ITS evolves, we must explore advanced models and technologies that drive its growth. The advanced ITS course includes the current types of intelligent transportation systems and the innovative software applications that power them. Additionally, understanding the evolving definition and scope of ITS is pivotal for professionals aiming to achieve certification or engage in this specialized training program.

The advanced Intelligent Transportation Systems ITS program aims to equip individuals with the knowledge to be at the forefront of this rapidly changing industry. We will delve into the principal components that define intelligent transportation systems, the unique challenges posed, and the opportunities they create for a smarter, more connected world.

Targeted Groups:

- Project Managers.
- Professionals in Urban Planning.
- Strategic Development Personnel.
- Architects involved in Urban Design.
- Traffic Engineering and Researchers.
- Transport Engineers and Researchers.
- Technology Engineers, CTOs, and CIOs.

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Course Objectives:

Upon completion of this intelligent transportation systems course, participants will be able to:

- Apply the tools and techniques of Big Data analysis in Intelligent Transportation Systems ITS.
- Recognize the implementation of artificial intelligence AI within intelligent transportation systems ITS.
- Prepare for Intelligent Transportation Systems ITS management of change.
- Get acquainted with the use of visualization techniques for traffic data.
- Use pattern recognition in traffic monitoring, control, and infrastructure maintenance and planning.
- Budgeting optimization and improvement.
- Lowering the costs of system use.
- Enhancing the level of service without the massive investment.
- Improve mobility within cities, areas, countries, and even cross borders.
- Open the gates of Industry 4.0 within their systems.
- Reduce project delays and public trust issues.
- Identify the Intelligent Transportation Systems ITS possibilities.
- Learn the details of Intelligent Transportation Systems ITS innovation streams.
- Acquire knowledge related to IoT and AI in Intelligent Transportation Systems ITS.
- Learn the data visualization requirements for successful Intelligent Transportation Systems ITS.
- Adopt modern technologies across the whole mobility sector.
- Recognize the benefits of Intelligent Transportation Systems ITS technologies in other areas.
- Accelerate their career development.
- Intelligent Transportation Systems ITS data should be adopted to improve road asset management.

Targeted Competencies:

Upon completion of this intelligent transportation systems training, participants competencies will:

- Intelligent Transportation Systems ITS innovation strives.
- Intelligent Transportation Systems ITS benefit governments, industries, and users.
- Design of user-centric Intelligent Transportation Systems ITS.
- Data gathering and analysis from vehicles.
- Use drones and video analysis for traffic counting.
- Road asset data collection from vehicles.
- Pattern Recognition and Artificial Intelligence in Intelligent Transportation Systems ITS.

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Course Content:

Unit 1: Intelligent Transportation Systems ITS and Big Data:

- Craft intelligent transportation systems with big data analytics.
- Data visualization techniques tailored for urban planning purposes.
- Innovative approaches to ITS data collection and thorough analysis.
- Correlate diverse data sources for enriched ITS applications.
- The ethics and mechanics of data sharing and assimilation from additional sources.

Unit 2: Intelligent Transportation Systems ITS and Artificial Intelligence AI:

- Deploy AI in the realm of traffic control and surveillance systems.
- Pioneer AI usage in vehicular technologies.
- Enhance pattern recognition capabilities and utilization of drones.
- Upgrade navigation maps and traffic sign recognition systems.
- Last frontier: Intelligent Transportation Systems for autonomous vehicles and the multilayered traffic ecosystem.

Unit 3: Urban Mobility Improvement Through ITS:

- Efficient travel time reduction strategies.
- Advanced automatic routing and dynamic re-routing mechanisms.
- Proximity detection systems and their role in contemporary ITS.
- Prioritize energy conservation through intelligent design.
- Incorporate mobility and social networking for seamless urban travel.

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Unit 4: The ITS and IoT for User-Centric Design:

- Facilitate harmonious communication between users, vehicles, and systems.
- System adaptation to user behavior patterns for optimized performance.
- Develop adaptive speed limits and parking solutions through ITS.
- Explore multimodal intelligent transportation systems and their implications for the future of urban navigation.

Unit 5: Intelligent Transportation Systems ITS Sustainability:

- Explore various ITS sources of finance and feasibility.
- Conduct cost reduction analysis and budget refinement for ITS.
- Integrate ITS with road asset management for sustainable infrastructure.
- Evaluate the potential of ITS as a sustainable profit center and its long-term viability.
- Vision the future trajectory of intelligent transportation systems and their role in a connected world.