

# THE INTERNET OF THINGS (IOT) IN TRANSPORTATION AND LOGISTICS

*“Optimizing Mobility, Visibility, and Operational Efficiency through IoT Integration”*

## Schedule

Date	Venue	Fees (Face-to-Face)
05 - 09 Oct 2026	London, UK	USD 3495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

## Introduction

The transportation and logistics sector is undergoing a digital revolution, with the Internet of Things (IoT) enabling real-time tracking, predictive maintenance, autonomous operations, and end-to-end visibility across supply chains. IoT applications in this sector drive smarter fleet management, improve safety, reduce delays, and increase asset utilization.

This intensive course equips logistics professionals, fleet managers, engineers, and technologists with practical skills and strategic insights to design and deploy IoT solutions for modern transportation systems. Participants will explore sensor technologies, connectivity frameworks, data analytics, and risk mitigation methods that are reshaping the movement of goods and people.

## Objectives

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

- Understand the role and components of IoT in transportation and logistics systems
- Deploy IoT-enabled asset tracking, fleet management, and cold chain monitoring solutions
- Evaluate technologies including GPS, RFID, telematics, NB-IoT, and 5G
- Analyze real-time and historical data for route optimization and operational insights
- Manage cybersecurity, privacy, and compliance challenges across logistics networks

## Why Attend

- Gain technical and operational knowledge to lead IoT initiatives in logistics
- Reduce costs through automated monitoring, predictive maintenance, and routing
- Improve shipment visibility and customer service across the value chain
- Adopt global best practices from smart transport systems and logistic hubs
- Support environmental and safety objectives through data-driven optimization

## Target Audience

This program is designed for:

- Logistics, supply chain, and fleet managers
- Transportation and operations engineers
- IoT solution architects and systems integrators
- IT, risk, and compliance professionals in logistics firms
- Smart infrastructure developers and public transport authorities

## Individual Benefits

Key competencies that will be developed include:

- IoT system design and implementation for logistics and fleet operations
- Real-time asset tracking, geofencing, and route analysis
- Telematics and sensor data interpretation
- Familiarity with cold chain integrity and cargo condition monitoring
- Knowledge of standards, security protocols, and regulatory frameworks

## Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Enhanced operational efficiency and delivery performance
- Improved safety, compliance, and asset security
- Increased customer satisfaction through transparent tracking and updates
- More agile and responsive transportation networks
- Ability to scale smart logistics solutions across geographies and functions

## Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings - Smart logistics models, IoT platforms, and architecture
- Case Studies - Real-time tracking, predictive maintenance, and autonomous fleets
- Workshops - IoT system planning, route analytics, and cold chain auditing
- Peer Exchange - Experience sharing across regions and transport modes
- Tools - IoT architecture templates, fleet dashboards, and data reporting models

## Course Outline

Detailed 5-Day Course Outline

**Training Hours: 7:30 AM - 3:30 PM** Daily Format: 3-4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 - 02:00

### Day 1: IoT in Transport & Logistics - Concepts and Strategy

- Module 1: Smart Logistics & Transportation Overview (07:30 - 09:30) • Trends, challenges, and opportunities in digital logistics • Use cases: last-mile delivery, multimodal transport, fleet intelligence
- Module 2: IoT Ecosystem and Architecture (09:45 - 11:15) • Devices, gateways, cloud platforms, edge computing
- Module 3: Communication Technologies for Mobility (11:30 - 01:00) • GPS, cellular, LPWAN, V2X, satellite connectivity
- Module 4: Workshop - Mapping IoT for a Logistics Network (02:00 - 03:30) • Participants design a basic IoT infrastructure for end-to-end visibility

### Day 2: Asset Tracking and Fleet Telematics

- Module 1: Asset Tracking Systems and RFID Technologies (07:30 - 09:30) • GPS, RFID, QR codes, BLE beacons for item-level tracking
- Module 2: Fleet Management and Telematics Platforms (09:45 - 11:15) • Fuel monitoring, driver behavior, maintenance alerts
- Module 3: Route Optimization and Traffic Data Integration (11:30 - 01:00) • AI-powered route planning, congestion prediction
- Module 4: Workshop - Fleet Data Dashboard Simulation (02:00 - 03:30) • Build a dashboard for vehicle performance monitoring

### Day 3: Warehouse, Port, and Supply Chain IoT

- Module 1: IoT in Warehousing and Inventory Control (07:30 - 09:30) • Smart shelves, robotics integration, picking automation
- Module 2: Cold Chain Monitoring and Environmental Sensors (09:45 - 11:15) • Temperature, humidity, shock detection, real-time alerts
- Module 3: Smart Ports and Intermodal Hubs (11:30 - 01:00) • Container tracking, yard management, customs processing
- Module 4: Workshop - Cold Chain Audit Planning (02:00 - 03:30) • Assess IoT readiness for sensitive cargo transport

### Day 4: Data Management, Security & Compliance

- Module 1: IoT Data Collection, Processing, and Storage (07:30 - 09:30) • Data lakes, cloud vs. edge analytics, data visualization
- Module 2: Cybersecurity in Logistics IoT Networks (09:45 - 11:15) • Threat surfaces, authentication, secure firmware updates
- Module 3: Regulatory Requirements and Standards (11:30 - 01:00) • ISO 28000, TAPA, GDPR, customs and trade compliance
- Module 4: Workshop - Threat Modelling for Connected Fleet (02:00 - 03:30) • Conduct a risk assessment of a logistics IoT deployment

### Day 5: Project Implementation & Certification

- Module 1: Planning and Scaling Smart Logistics Projects (07:30 - 09:30) • Pilots, rollout strategies, ROI measurement
- Module 2: Final Case Study - Smart Supply Chain Design (09:45 - 11:15) • Group project to develop a connected logistics model
- Module 3: Team Presentations and Review (11:30 - 01:00) • Participants present IoT-enabled transportation strategies
- Module 4: Wrap-Up and Certification (02:00 - 03:30) • Course debrief, Q&A, certificate distribution

## Certification

Participants will receive a Certificate of Completion in IoT in Transportation and Logistics, validating their expertise in applying IoT technologies to enhance transportation operations, asset tracking, and logistics performance.

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