MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

THE INTERNET OF THINGS (IOT) IN AUTOMOTIVE

"Transforming the Automotive Industry Through Connected Technologies and Smart Mobility Solutions"

Schedule

Date	Venue	Fees (Face-to-Face)
23 – 27 Nov 2026	London – UK	USD 3495 per delegate

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

Introduction

The automotive industry is undergoing a digital transformation driven by the integration of Internet of Things (IoT) technologies. From connected vehicles and predictive maintenance to smart manufacturing and mobility-as-a-service, IoT is revolutionizing the way vehicles are built, operated, and experienced.

This intensive training program provides a comprehensive overview of IoT applications in the automotive sector. Participants will explore real-time data management, sensor networks, vehicle-to-everything (V2X) communication, cybersecurity, and the role of IoT in autonomous driving and smart mobility ecosystems.

Objectives

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

- Understand the architecture and core components of IoT systems in automotive applications
- Identify key use cases including connected cars, fleet telematics, and in-vehicle infotainment
- Analyze the role of V2X communication and edge computing in smart mobility
- Assess cybersecurity risks and privacy concerns in connected automotive platforms
- Plan, implement, and evaluate IoT-driven strategies in manufacturing and after-sales services

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Why Attend

- Gain a strategic and technical understanding of IoT in the evolving automotive landscape
- Explore the impact of connectivity on product development, customer experience, and safety
- Apply real-world IoT use cases to improve operations, innovation, and decision-making
- Enhance your readiness for emerging trends like autonomous vehicles and mobility platforms
- Learn how to manage data security, interoperability, and infrastructure requirements

Target Audience

This program is designed for:

- Automotive engineers and R&D professionals
- IT and digital transformation leaders in the mobility sector
- Fleet managers and OEM executives
- Technology vendors, integrators, and solution architects
- Transportation regulators, analysts, and consultants

Individual Benefits

Key competencies that will be developed include:

- Connected vehicle systems design and integration
- V2X communication and data architecture
- Predictive maintenance and telematics analytics
- Cybersecurity and privacy risk management in automotive IoT
- IoT strategy development and use case deployment

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved vehicle connectivity strategies and digital service offerings
- Optimized fleet and maintenance operations through IoT-driven analytics
- Enhanced safety, compliance, and customer satisfaction through connected systems
- Better integration of IoT with manufacturing, logistics, and aftermarket support
- Accelerated innovation in autonomous, electric, and shared mobility solutions

Instructional Methodology

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

- Strategy Briefings – Automotive IoT architecture, communication protocols, and trends
- Case Studies – Examples of IoT deployment in commercial and consumer automotive sectors
- Workshops – Use case design, sensor integration planning, and data interpretation
- Peer Exchange – Industry-specific experiences and innovation roadmaps
- Tools – IoT platform templates, risk assessment checklists, and technology evaluation guides

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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 Foundations in Automotive Applications

- Module 1: IoT Architecture and Ecosystem (07:30 – 09:30) • Sensors, edge devices, cloud platforms, and analytics • End-to-end architecture for connected vehicles
- Module 2: Automotive Industry Trends and Use Cases (09:45 – 11:15) • Connected vehicles, autonomous driving, EVs, and smart cities
- Module 3: Workshop – Mapping IoT Opportunities (11:30 – 01:00) • Identify IoT potential across the vehicle lifecycle
- Module 4: Peer Exchange – Transformation in Automotive Design (02:00 – 03:30) • Discussion on changing product strategies

Day 2: Connected Vehicles and Telematics

- Module 5: Vehicle Telematics Systems (07:30 – 09:30) • Real-time monitoring, GPS, diagnostics, and alerts
- Module 6: V2X Communication and Standards (09:45 – 11:15) • V2V, V2I, V2N, V2P technologies and deployment challenges
- Module 7: Workshop – Connected Car Platform Design (11:30 – 01:00) • Outline a telematics solution for fleet management
- Module 8: Case Study – Smart Vehicle Integration (02:00 – 03:30) • Connected system success story from an OEM

Day 3: Manufacturing, Maintenance, and Predictive Analytics

- Module 9: Smart Factory and Industry 4.0 (07:30 – 09:30) • IoT in production, assembly lines, and quality control
- Module 10: Predictive Maintenance and Analytics (09:45 – 11:15) • Data-driven models for fault detection and downtime reduction
- Module 11: Workshop – Building a Predictive Maintenance Model (11:30 – 01:00) • Apply data inputs to forecast maintenance needs
- Module 12: Peer Exchange – Connected Service Centers (02:00 – 03:30) • Aftermarket service transformation

Day 4: Cybersecurity, Privacy, and Risk Management

- Module 13: Automotive IoT Security Risks (07:30 – 09:30) • Hacking, firmware threats, and system vulnerabilities
- Module 14: Compliance and Data Privacy (09:45 – 11:15) • GDPR, ISO 21434, UNECE WP.29 Cybersecurity Regulation
- Module 15: Workshop – Security Risk Assessment (11:30 – 01:00) • Evaluate risk exposure in a connected vehicle system
- Module 16: Case Study – Security Breach in Automotive IoT (02:00 – 03:30) • Review of a high-profile incident and mitigation actions

Day 5: Strategy, Innovation, and Implementation Planning

- Module 17: Building an IoT Roadmap for Automotive (07:30 – 09:30) • Stakeholder alignment, budgeting, and rollout plans
- Module 18: Partner Ecosystems and Vendor Selection (09:45 – 11:15) • Choosing technology platforms, integrators, and connectivity providers
- Module 19: Final Project – IoT Business Case for Automotive (11:30 – 01:00) • Present a connected mobility solution strategy
- Module 20: Wrap-Up, Feedback, and Certification (02:00 – 03:30) • Recap and awarding of certificates

Certification

Participants will receive a Certificate of Completion in The Internet of Things (IoT) in Automotive, validating their skills in planning, auditing, and implementing connected vehicle and smart mobility solutions.

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Why Choose MAWA Events

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