

Internet of Things (IoT) Systems Development

COURSE OVERVIEW

This course provides comprehensive training in designing, developing, and deploying complete IoT systems, covering key areas including embedded device programming, wireless communication protocols, cloud platform integration, data analytics, and cybersecurity for connected devices. Through hands-on exercises, participants will master end-to-end IoT solution development, from sensor interfacing to cloud deployment, enabling them to build scalable and secure IoT applications across various industry domains.

WHO SHOULD ATTEND?

This course is ideal for engineers, software developers, and system architects working on IoT solutions and connected devices. It also suits embedded systems engineers, network and communication specialists, automation professionals, and technical teams involved in industrial IoT, smart home, or smart city projects. Professionals seeking hands-on skills in IoT system design, sensor integration, and data connectivity will benefit most.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Design and implement complete IoT system architectures.
- Develop embedded firmware for resource-constrained IoT devices.
- Implement and manage wireless communication protocols.
- Integrate IoT systems with cloud platforms and web services.
- Apply comprehensive security measures to IoT ecosystems.
- Process, analyze, and visualize IoT data for decision-making.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- IoT architecture models and design methodologies.
- Wireless protocols including WiFi, Bluetooth, LoRaWAN, and cellular IoT.
- Embedded systems development for sensors and actuators.
- Cloud platform integration and REST API development.
- IoT security principles and threat mitigation strategies.
- Data processing pipelines and real-time analytics.
- Industry-specific applications and deployment frameworks.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded