

Internet of Things (IoT)

The IoT module introduces the Internet of Things, which extends Internet connectivity from computers and related devices to other physical devices or common objects and leverages from technologies such as embedded systems, wireless sensors, and automation.

Over the last few years, there has been an explosion in the scale of the Internet of Things. Homes, offices, factories and entire cities are being made “smart” by the proliferation of Internet-connected devices. Some estimates suggest that the number of connected IoT devices will reach 41.6 billion by 2025. Organisations and societies are only now starting to grasp the potential and implications of this trend.

This module is suitable for a wide range of candidates; for example, non-technical professionals who wish to build and demonstrate an understanding of IoT, facilitating engagement with their technical colleagues or their suppliers, or students who wish to add general technical knowledge to sector-specific or general studies.

Module overview

Unit	Content
Unit 1	<ul style="list-style-type: none">• What is IoT?
Unit 2	<ul style="list-style-type: none">• IoT examples
Unit 3	<ul style="list-style-type: none">• Trends in IoT
Unit 4	<ul style="list-style-type: none">• IoT adoption

Main learning outcomes

The IoT module consists of e-learning followed by a brief certification test. Together, these components deliver a short, focused professional development solution.

- Understand key concepts relating to Internet of Things (IoT), including common structure and requirements
- Recognise examples of consumer, commercial, industrial, and infrastructural applications of IoT
- Identify current trends in IoT, including the evolution of IoT components and the important role played by governance.
- Understand ethical, security, and interoperability considerations around adoption of IoT, and consider how IoT could be implemented in a given scenario
- Consider appropriate solutions and models for implementing cloud computing in a given scenario or situation