



Introduction to Internet of Things (IoT) Technologies and Applications

CONNECTION 裝備未來
TECHNOLOGY 裝備未來
FUTURE SKILLS



This programme aims at elaborating the core technologies, including RFID sensors, sensor networks and localisation behind IoT and the applications in different scenarios derived from these technologies.

It is suitable for any professional who wants to learn the application of IoT for designing a solution catering for specific needs.

Programme code	TBC
Duration and time	2 days 9:30-17:00
Venue	1/F, HKPC Building, 78 Tat Chee Avenue, Kowloon Tong
Medium	Cantonese, supplemented with English terminology
Course fee	HK\$4,800
Prerequisite	It is highly recommended that participants possess basic programming knowledge (in any languages)

Enrolment Methods

1. Scan the QR code to complete the enrolment and payment online OR
2. Mail the crossed cheque with payee name "Hong Kong Productivity Council" (in HK dollar) to HKPC Academy, Hong Kong Productivity Council, 3/F, HKPC Building, 78 Tat Chee Avenue, Kowloon (attention to Mr Desmond CHAN). Please indicate the course name and course code on the envelope.



[Enrolment Link](#)

Supporting Organisations (In arbitrary order)

Course Outline

Day 1

Introduction to IoT

- What is IoT?
- Why IoT?
- IoT Solutions Architecture

Core Technology – RFID

- Overview of RFID
- RFID technology
- RFID middleware
- Business applications of RFID
- Security and privacy

Core Technology – Localisation

- How localisation creates value ?
- Outdoor localisation
- Indoor localisation

Core Technology – Sensor and Sensor Network

- Wireless sensor network (WSN)
- Sensor nodes
- MEMS
- Ambient energy harvesting
- Connectivity
 - NFC
 - Bluetooth
 - BLE
 - ZigBee
 - Wi-Fi
 - NB-IOT
 - LTE-M
 - Lora
 - SigFox
 - Cellular technologies
 - Topology

Day 2

Business Drivers and Models

- Potential business values
- Business value chain
- Business models

Application Scenarios and Case Studies

- Smart parking
- Air quality
- Water quality
- Flood warning system
- Smart retail
- Cold chain monitoring
- Industrial control
- Smart agriculture
- Home automation
- E-health

Future Trends of IoT

- Security and privacy considerations
- Security framework
- Governance framework
- Standardisation
- Protocol evolution
- Crowd sensing
- Machine learning
- Emergence of IoT platforms

Discussion

- Design an IoT solution for your organisation or enterprise

Trainer Information

Simon MOK is an IT professional trainer for over 10 years covering IoT, data analytics, AI and machine learning and programming. He has rich experience in leading development team to deliver software solutions for clients. He is a M.Phil from the University of Hong Kong and MSc in Computer Science from the Chinese University of Hong Kong.