

Course ID
M2MIOTLTE
Course Duration
2-3 days

Course Title
M2M Course with IoT and LTE

Aimed At Technical professionals who need to understand the technology and applications of M2M, IoT, and LTE.

Prerequisites Understanding of networking, wireless, and Internet technologies.

Related Courses

- [M2M Training: Machine-to-Machine Communications and Machine Learning](#)
- [IoT Training: In Depth](#)
- [Internet of Things \(IoT\): IoT Workshop](#)
- [Internet of Things \(IoT\): IoT Overview](#)
- [5G Wireless Technology/Applications](#)
- [WiFi Training in Depth: Technology, Security, Deployment ... with M2M, IoT, 5G](#)
- [ZigBee Hands-on](#)

Course in a Nutshell This 2-3 day M2M Course with IoT and LTE undertakes an in-depth study of M2M (Machine-to-Machine) Communications and Internet of Things (IoT) in the context of LTE evolution to 5G wireless.

Customize It! Since this is a broad field with many aspects and applications, we will customize your M2M Course with IoT and LTE to your team's requirements by including topics and use cases relevant to your organization. The course can be made longer/shorter or more/less technical.

Course Outline

- **M2M Course with IoT and LTE: Introduction**
 - What's M2M
 - What's IoT
 - How M2M and IoT work together
 - LTE evolution to 5G and relationship with M2M and IoT

- **Machine to Machine Communications (M2M)**
 - Machine-to-Machine (M2M) Communications overview
 - Telemetry vs. M2M communications
 - Applications of M2M communications
 - M2M business applications and market opportunities
 - M2M technologies
 - Wireless Sensor Networking (WSN)
 - Cellular M2M networks and air interface standards
 - M2M communication
 - System-level flexibility
 - Using communications protocols for Internet connectivity
 - IP-based cellular networks
 - M2M systems and networks
 - M2M design
 - M2M sensors
 - Tagging and tracking
 - Embedded products
 - M2M security and encryption
 - M2M security framework
 - Secure cryptographic library
 - RSA 1024- and 2048-bit private key encryption
 - AES-128/192/256
 - ARC4, MD5 and SHA-1
 - SSL
 - HTTPS
 - SIPS
 - Machine Communication Identity Module (MCIM)
 - Security threats for M2M
 - Configuration attacks
 - Protocol attacks on the device
 - Attacks on the core network
 - User data and identity privacy attacks
- **Internet of Things (IoT)**
 - Internet of Things (IoT) concepts and definitions
 - IoT applications and requirements
 - IoT enabling technologies
 - Big Data and analytics
 - IoT security
 - IoT and Cloud Computing
 - IoT platforms
 - IoT architecture
- **IoT Connectivity Methods and Technologies**

- LTE Narrowband
 - ZigBee PRO, ZigBee 3.0 and ZigBee IP
 - 6LowPAN
 - RFID
 - Bluetooth LE or Bluetooth Smart Technology
 - Z-Wave
- **IoT Evolution**
 - **LTE New Radio**
 - **M2M Course with IoT and LTE Wrap-up: Course Recap, Discussion, and Evaluation**

DCN J-TD.tr.f-1