



## **Introduction to UMTS**

### **Course Description**

The third-generation technology of UMTS continues to play an important part in the global communication landscape and the delivery of mobile broadband services. In this short course, we aim to provide a comprehensive introduction into UMTS and in so doing, provide an overview of the architectural view of UMTS and explain how it supports circuit switched voice and packet switched data traffic. Mobility is also discussed in addition to how roaming is supported. Finally, interworking with both 2G and LTE will be discussed, with a brief focus on Circuit Switched Fallback.

This course has no prerequisites.

day
(LiveOnsite,
LiveOnline)

hours
learning
(OnlineAnytime)

CPD Learning Credits



#### This course will contain the following sections:

#### 1. Introduction to UMTS

#### **Topic areas covered include:**

- The UMTS Network:
  - 3G Services.
  - Circuit Switching and Packet Switching.
  - The UMTS Terminal.
  - The Universal Terrestrial Radio Access Network.
  - The UMTS Core Network.
- The UMTS Air Interface:
  - Modulation Techniques.
  - Adaptive Modulation and Coding.
  - Code Division Multiple Access.
  - Evolution of HSPA.
- Connecting to the Network:
  - Mobility Management.
  - Initial Procedures.
- Making and Receiving Calls:
  - Mobile Originated Call.
  - Mobile Terminated Call.
  - SMS Transfer.
- Sending and Receiving Data:
  - Session Management.
  - Data Transfer.
- · Supporting Mobility:
  - Cell Re-selection.
  - Handovers.
  - Roaming.
- Interworking:
  - Interworking with 2G.
  - Interworking with LTE.



day
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learning
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