

## Introduction to 5G

### **Course Description**

In this updated version of our popular short course, the key aspects of 5G will be explored at an introductory level. This includes a synopsis of the driving factors and key characteristics, the overall architecture, network operation and example use cases. Although considered to be beginner level, this course will explore technical aspects of 5G, providing audiences with an understanding of the key buzzwords encountered.

This course has no prerequisites.



CPD Learning Credits



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

#### 1. Introduction to 5G

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

- 5G Concepts and Drivers:
  - Enhanced Mobile Broadband.
  - Ultra-Reliable and Low Latency Communications.
  - Massive Machine Type Communications.
  - 5G vs 4G Performance Synopsis.
- Deploying 5G:
  - Non Standalone 5G Deployment.
  - Standalone 5G Deployment.
- 5G New Radio:
  - Flexible Numerology.
  - Beam Forming and Beam Steering.
  - Dual Connectivity.
- NG-RAN:
  - Small Cells.
  - Centralized RAN.
- 5G Core Network Architecture:
  - Data Sessions.
  - Core Network Elements.
  - Network Virtualization and SBA.
  - Network Slicing.
- 5G Network Operation:
  - Registering to the Network.
  - Establishing Data Connectivity.
  - Tracking Mobility within the Network.
  - Handovers.
  - Roaming.

- 5G Use Cases:
  - MEC and 5G Making VR/AR a Reality.
  - 5G and FWA Delivering Triple Play over 5G.
  - Private 5G Deploying 5G on a Micro Scale.



CPD Learning Credits











# Managed Learning Services

As part of our managed learning service we can offer you and your organisation a full range of services including:

mpirical.com/about-us/managed-learning-services

- Bespoke content and courseware development.
- Product specific training packages, including product updates.
- Dedicated trainers to understand your products and training requirements.
- Managed training delivery services administrative aspects including scheduling and liaison.
- Customizable learning management system.
- Traditional classroom, virtual classroom or video based online learning options.



The Mpirical Network Visualisation Solution: **NetX Bringing Telecoms to Life!** Imagine the benefits of having an entire mobile network available from your desktop.

- Where you can view a complete network map.
- Watch call flows across the network.
- Investigate network procedures.

NetX does this... and even more with our NetX customization options! NetX is not just a learning aid, it is a valuable resource in the day to day activities of any telecoms professional and has been spotlighted as such by the 3GPP.

Explore NetX further at www.mpirical.com/netx