

# Introducing 5G

## COURSE OUTLINE



## Course Details

**Name:** *Introducing 5G*

### Target Audience

This course is designed for participants who have certain degree of experience in mobile communication networks. Participants that would benefit by attending this course are Technicians, Sales/Marketing people and Project/Programme managers who are new in their role.

### Training Objective

By the end of the course, the participants will understand the basics of 5G and Traffic Evolution in Mobile Communications Networks.

**Duration of Training:** 2 Days

**Prerequisite:** General knowledge of LTE mobile communication networks.

## Module List Detailed

### Module 1: Traffic Evolution in Mobile Communications Networks

Topics discussed in this module are listed below:

- New Applications
- Internet of Things
- Cloud computing
- Mobile Data Growth
- 5G Data drivers
- 5G Use Cases
- ITU Requirements for 5G networks: IMT-2020
- 5G 3GPP Standards: Release 15

### Module 2: Introducing 5G

Topics discussed in this module are listed below:

- 3GPP Standards: Release 15
- 3GPP 5G New Radio (5G-NR)
  - Rel-15 5G NR Options: Standalone and Non-Standalone
  - Spectrum for 5G
  - Multiplexing and multiple access
  - Frame Structure
  - Numerology
  - Introduction to Massive MIMO
  - Reference Signals
  - 5G Physical Channels
  - Radio Interface Protocols
- 3GPP 5G Architecture
  - 3GPP 5G Architecture: Interface and Protocols
  - 5G Core Network Architecture
  - Network Virtualization
  - Cloud RAN
  - 5G Network Slicing