LTE-Advanced Training (1 day)

4G

3GPP Release 9 expands the functionality of Release 8 as well as laying solid foundations for LTE-Advanced. 3GPP proposed LTE Release 10 & beyond (LTE-Advanced) as a candidate for IMT-Advanced which has been accepted by ITU. The new capabilities of LTE-Advanced is envisaged to handle a wide range of supported data rates with target peak data rates of up to approximately 100 Mbit/s for high mobility and up to approximately 1 Gbit/s for low mobility. In comparison to LTE, LTE-Advanced is wider than approximately 70 MHz in DL and 40 MHz in UL.

Who Should Attend

Telecom developers, testers, managers and operational engineers involved in LTE & LTE-Advanced technologies.

Objective

After completing this course, the audience will be able to:

- Understand history & overview of LTE-Advanced
- Define LTE-Advanced Requirements
- Explain LTE-Advanced Features
- Describe LTE-Advanced Air Interface Enhancements
- Explain LTE-Advanced Procedures

Course Contents

LTE-Advanced Overview

- History & Evolution
- Need of LTE-Advanced
- High Level Requirements
- LTE-Advanced Spectrum Allocation
- Overview of LTE-Advanced Features

Network Architecture Enhancements

- LTE R8/R9 Architecture
- HeNB Evolutions – LIPA/SIPTO
- Extended H(e)NB Features
- Relays for LTE
- Self-Organizing Networks (SON) Evolutions
- Network-Based Positioning

E-UTRA Evolutions

- Carrier Aggregation
- Enhanced Downlink Multiple Antenna Transmission
- Uplink Multiple Antenna Transmission
- LTE Spectrum Enhancements
- Latency Reductions

Operations & Deployments

- HeNB Mobility Enhancements
- Attach & Bearer Setup in LTE-Advanced
- Mobility in LTE-Advanced
- LTE-Advanced Interworking
- Migration to LTE-Advanced