

LTE (Long Term Evolution)

Pre-request: - GSM, GPRS and EDGE Course
- CDMA and UMTS Course

Course duration: 27 Hours

On completing this course you will be able to:

- understand and explain LTE Concepts, Network Architecture, Air Interface and protocols
- Pass any LTE interview to work in any mobile operator, vendor or Sub-contractor
- Make any graduation project based on LTE mobile communications

Course Content:

CH1: Introduction to LTE

- 3GPP releases
- Generations Survey

CH2: LTE Enabling Technologies

- OFDMA
- SC-FDMA
- Channel dependence scheduling
- Frequency domain Equalization
- MIMO Antenna Systems

CH3: LTE Network

- System Architecture Evolution
- E-node-B
- S-GW and MME
- P-GW
- HSS

CH4: LTE Air interface

- LTE Key Features
- Fractional frequency reuse
- Frequency domain resources
- Time domain resources
 - Frame structure 1
 - Frame structure 2
- Resource Grid
- LTE Channels

CH5: LTE physical Layer

- Source coding
- Channel coding
- Rate matching
- Interleaving
- Ciphering
- OFDM Modulation

CH6: LTE Protocols and LTE-A Intro.

- Access protocols
- Mobility management protocols
- Power Control
- Security protocols
- LTE – Advanced Introduction