



LTE Signalling

1 Hr. 27 Min.



LEARNING OBJECTIVE:

Upon completing the course, the participant will be able to:

- Understand the need of 4G
- Understand the LTE Architecture, Roaming Scenarios and Interworking
- Dig deep into the Air Interface and understand the Channel concept
- Examine the Call flows

COURSE OBJECTIVE:

In this course, the participant will understand UE to Layer 2 Air interface including channels and layer. We will discuss about RRC Signalling message/NAS message and interface involve in LTE Signalling. We will also cover the most important S1AP/ X2AP signalling and User plane and Control plane traffic /Call flow /Attach procedure and CS Fall back procedure. This course is fully recommended to understand concepts and it can provide excellent concept to understand 5G signalling in future aspirants.

WHO SHOULD ATTEND:

This course is designed to provide a general overview for strategic or technical managers, consultants, communications professionals, network professionals and others who plan to work in LTE wireless network.

TARGET AUDIENCE:

RF Engineers, LTE Planners and Optimizers, Drive Test Engineers

INSTRUCTIONAL METHODS:

Lectures in Classroom, Virtual Classroom trainings, discussion, Questions & Answers. All participants will also receive comprehensive course materials.

COURSE OUTLINE:

1. BASICS

- 1.1 Overview and objectives**
- 1.2 EPS network Architecture**
- 1.3 LTE Channel Architecture**
- 1.4 Physical Channels**

- 1.4 Transport Channels**
- 1.5 Logical Channels**
- 1.6 Logical to Physical to Transport Channel Mapping**
- 1.7 Logical to Physical to Transport Channel Mapping Uplink**





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1.8 TCP-IP Protocol Layer

1.9 MAC layer

1.10 Physical Layer

2. Intermediate

2.1 EPC Interfaces

2.2 S1-U Protocol Stack

2.3 NAS Signalling

2.4 S5-S8 Interface

2.5 S11 Interface

2.6 S10 Interface

2.7 S6a Interface

2.8 X2 Interface

2.9 X2 User plane protocol

2.10 Gx, Sgi and Rx+ Interfaces

2.11 Identities

3. Advance

3.1 UE States

3.2 Network Attach

3.3 Cell Selection

3.4 UE Triggered Attach

3.5 Cell Reselection

3.6 S1 Handover

3.7 Inter RAT/ Technology Mobility

3.8 Preparation Phase

3.9 E-UTRAN to GERAN A/Gb Inter RAT Handover

3.10 Circuit Switch Fallback Overview

3.11 CS fallback Attach Procedure

Evaluation and feedback of the participants

Maximum number of participants: 15

Duration: 1 Hr. 27 Min.

