GPRS/EDGE Fundamentals(2 days)

2G/2.5G

To satisfy accelerated growth of data, ETSI evolved GSM and created GPRS standard. One of its kind in beginning GPRS paved the way for more data intensive standards. This course provides a good understanding of GPRS history, modulation, technology, protocols, architecture and services. A good knowledge of GSM technology would be beneficial for anyone attending this course.

Who Should Attend

This is advanced level course and suitable for telecom professionals including design, testing , support & sales engineers requiring good (E)GPRS knowledge.

Objective

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

- Understand (E)GPRS architecture, access and core network
- Define GPRS interfaces
- Describe routing area/ frame/Modulation concepts
- Explain E2E signaling procedures and protocols

Course Contents

Introduction

- Motivation for GPRS and EDGE
- Efficient use of radio resources
- Evolution from existing networks
- Supported data rates
- 3G technology landscape

Network Architecture

- Evolution from GSM networks
- GPRS and EDGE Radio Network
- GPRS Nodes

Physical layer operations

- Error protection techniques
- GMSK and 8PSK modulation
- MCS and CS classes

Physical and logical channels

GPRS Interface & Protocols

- **RLC/MAC**
- **GMM/SM**
- **SNDCP**
- **Gb Interface**
- **GTP**
- **Gn Interface**

GPRS Packet Network

Signaling

- GPRS Attach/Detach
- PDP context activation/deactivation

GPRS Mobility and Roaming

- Cell update procedures
- RA update

GPRS Services

GPRS Roaming

GPRS Concepts

Different classes of GPRS handsets