Wireless Fundamentals (0.5 day)

Basics

Wireless has taken over the legacy wirleine technology as a primary medium of communication. Wireless standards like GSM & UMTS has very high growth in last 2 decades and with LTE same is expected to continue in Data domain. This course provides a good understanding of RF concepts, standards and wireless networks.

Who Should Attend

This is beginner level course and suitable for professionals & students who have little or no understanding of telecommunication concepts.

Objective

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

- Understand RF propagation
- Describe Antenna properties
- Define Wireless technologies
- Explain communication concepts

Course Contents

RF Wave Propagation

- Overview
- Coverage Area
- Propagation Environnent
- Propagation Models
- Free space propagation
- Longley-Rice model
- Wave Propagation Effects
- Multipath
- Fading
- Diversity

Antenna Operations Fundamentals

- Radio Link
- Antenna
- Antenna Types
- Radiation Pattern
- Antenna Gain
- Antenna Characteristics

Satellite Communication Basics

- Overview
- Types
- Frequency Bands

Analog Cellular Overview

WiFi Basics

Multiple Access

Digital Mobile Standards

- GSM
- GPRS/EDGE
- UMTS
- CDMA