Telecom Fundamentals (0.5 day)

Basics

Telecommunication has changed the world and it has tremendous contribution in growth of mankind. Starting from wireline to wireless, as of today many telecom standards exist but all follow basic fundamentals of communication. This course provides a good understanding of telecommunication concepts, functions, signals and network models.

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 Basic Concepts
- Describe Switching Concepts
- Define Communication Networks & Network Models
- Explain Data & Signals
- Describe Multiplexing & Modulation

Course Contents

Basic Concepts

- What is telecommunication?
- Components of a Telecommunication System
- Data Flow
- Communication Node

Switching Concepts

- Switching Networks
- Circuit Switching
- Packet Switching

Communication Networks

- Data Networks
- Local Area Network
- Wide Area Network
- Metropolitan Area Network
- Internet

Network Models

- Different Layering Architectures
- OSI Model
- Layered Architecture
- TCP/IP Protocol Suite

Data & Signals

- Analog and Digital Signal
- Time and Frequency domain representation
- Transmission Impairment
- Modulation

Multiplexing

- Frequency Division Multiplexing
- Time Division Multiplexing
- Interleaving
- Transmission Techniques

Signaling Concept

Modulation Overview

Telecom standards