# Training in Advanced Telecom with Specialisation in Data Communications

#### **Major Contents**

## 1.. Overview of Telecommunication networks

- a) Telecom Network Architecture
- b) Local and Trunk network
- c) Call Routing
- d) Telecom Industry in India -Institutional Mechanism & Role

#### 2. Digital Switching Principles

- a) PCM principles & Multiplexing of Telecom signals
- b) Introduction to latest switches in telecom industry

#### 3. Fibre Optic Communication Principles

- a) Characteristics of Optical Fibre
- b) OF transmission systems and their features
- c) Concept of SDH and DWDM

#### 4.. Broadband, DSL technologies

- a) Principles, Network Architecture
- b) Broadband Services

#### 5. Mobile Communication Principles

- a) Cellular Principles
- b) GSM- Principles, Network Architecture, Call Processing, Handover, GPRS, EDGE
- c) CDMA –Principles, Network Architecture, Call Processing, Handover, Power Control, EVDO
- d) 3G technologies and emerging trends
- e) Overview of Mobile Services Postpaid, Prepaid, SMS, VAS, Data

#### 6. Intelligent Network

- a) Network Architecture
- 6) IN Services

### 7. Next Generation Network

Overview and Architecture

#### Topics Covered under Specialisation in Data Communication:

- a) Wimax, Wifi
- 6) MPLS-VPN
- c) IPv6

#### Highlights:

- The classroom theory sessions are supplemented through practical exposure/ hands-on on live full complement of latest equipments available in the training centre:
  - ► Latest switches –OCB, CDOT
  - Mobile equipments-2G GSM, CDMA, 3G Mobile
  - > OF Systems-SDH, DWDM
  - Broadband