



## Workshop on Overview of 3G (1 Day)

### **1. UMTS Overview-(1 Hour)**

- Cellular Systems
- 1G, 2G and 3G
- Universal Mobile Telecommunication System
- Standardization
- UMTS Evolution
- UMTS and Other mobile Technologies

### **2. UMTS Network Architecture-(1/2 Hour)**

- Introduction
- UMTS Network Architecture Evolution
- Rel.99
- Rel.4
- Rel.5

### **3. Network Elements and Functionalities-(1 Hour)**

- Node B
- Radio network Controller(RNC)
- Media Gateway(MGW)
- Mobile Soft Switch(MSS)
- 3G SGSN
- GGSN/ISN
- IMS
- UMTS Core Network Dimensioning





#### 4. UMTS Air Interface-(1 Hour)

- UMTS Air Interface
- WCDMA
- Principle
- Data processing
- Codes
- Logical, Transport & Physical Channels

#### 5. UMTS Air Interface Procedures-(2 Hour)

- Radio resource Management
- RRC
- Admission Control
- Load Control
- Packet Scheduler
- Code allocation
- Power control
- Diversity
- Mobility management
- Location Update
- Paging
- Session management
- Initial Access to network
- Ciphering

#### 6. UMTS Evolution-(1/2 Hour)

- UMTS Release 5 , HSDPA & IMS
- UMTS Release 6 , HSUPA
- Release 7 & 8 , LTE

