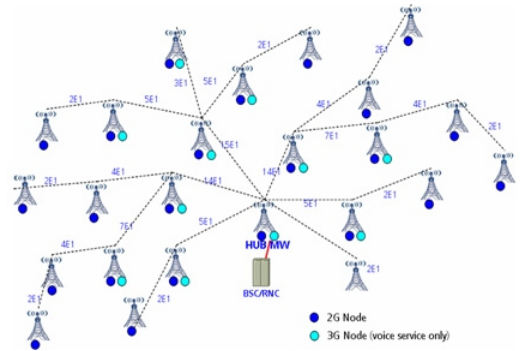


Telecom



Corporate Trainer's Profile

Corporate Trainers are having the experience of 4 to 12 years in development, working with TOP CMM level 5 companies (Project Leader /Project Manager) qualified from NIT/IIT/IIM and work exp in USA and UK.



CMM (Capability Maturity Model) level Project Standard:-

The Capability Maturity Model (CMM) is a method for evaluating the maturity of organizations on a scale of 1 to 5. Get the Opportunities to work on Client Projects Of US/UK, which follow the all standard of CMM level 5 Company.

Projects



NOKIA

SIEMENS
symbian

ALCATEL
spice

MOTOROLA

UMTS Air Interface

Course Duration: 3 Days

Training Course Description:

Officially recognized standardization organizations have agreed to work collaboratively for the production of Third Generation Mobile System specifications, based on evolved GSM core networks and the radio access technologies that they support (i.e. Universal Terrestrial Radio Access (UTRA) both Frequency Division Duplex (FDD) and Time Division Duplex (TDD) modes. UTRA will support operation with high spectral efficiency and service quality in all the physical environments in which wireless and mobile communication take place. This course will explain in detail the design and procedures used over the air interface that has been selected to fulfill high flexibility requirements.

UMTS Air Interface includes the following modules:

Introduction

- The Standardization Process
- IMT-2000 Requirements
- IMT-2000 Spectrum
- Bearer and Teleservices
- Evolution Path
- UMTS General Architecture
- UTRAN Architecture & Radio Access Bearer

CDMA Principles

- CDMA Principle
- Direct Sequence Spreading/ De-Spreading
- DS- Frequency Domain
- Cell Capacity Consideration
- Code Characteristics
- Code Classifications/ Generations
- Code Requirements

CDMA Requirements

- Synchronization
- Power control
- Soft handover
- Rake receiver
- Antenna consideration
- Multi-user detection

Radio Interface Protocol Architecture

- Access stratum & Non-access stratum
- Overall Protocol Structure
- Logical and Transport Channels
- Physical Channels

Protocol Termination

FDD Physical layer Implementation

- Code Requirements
- Uplink Physical Channels
- Downlink Physical Channels
- Transport to Physical Channels
- Frame Structure
- Multiplexing and coding
- Selected Codes
- Channel structures and Information Content
- Mobile synchronization
- Modulation
- Power Control
- Additional TDD Implementation Features

TDD Physical Layer Implementation

- Frame Structure
- Burst Structures
- TDD specific spreading
- Synchronization Channels
- TDD specific operations

Layer 2 Protocols

- Medium Access Control (MAC) Protocol
- Radio Link Control (RLC) Protocol
- Packet Data Convergence Protocol (PDCP) protocol
- Radio Interface for Broadcast/Multicast Services

Radio Resource Control (RRC) Protocol

- RRC Architecture
- RRC Protocol State
- Broadcast of information
- RRC connection management
- Radio Bearer management
- RRC connection mobility functions
- Power control
- Ciphering and Integrity

Mobile Procedures

- Mobility Management states and transitions
- UMTS identities
- Procedures in Idle mode (location updates, cell selection/ re-selection)
- Circuit-switched call set-up
- Packet-switched context activation and context preservation
- Data transfer initialization
- Measurement reporting
- Soft-handover procedure