



Workshop on Overview of GSM (1 Day)

1) Introduction-(1 Hour)

- History and evolution of wireless communication.
- Motivation for GSM.
- Current GSM status.
- Key characteristics of a GSM network.

2) GSM Network Architecture-(1 Hour)

- Overview of network components.
- Mobile station.
- BSS
- Cell site configuration.
- MSC/VLR and HLR.
- SM-SC.

3) Radio/Physical layer in GSM-(1 Hour)

- Concepts of radio channels.
- Time slots, Frames and Multiple Access.
- System acquisition.
- Access and Idle mode products.
- Traffic Channel operations.

4) GSM Radio Concept-(1 Hour)

- IGSM Radio Concept.
- FDMA and TDMA
- Coding
- Interleaving
- GSM Channel.
- Frames & Channel Dimensioning.
- Power Control
- Cell selection and reselection procedure.
- Location update procedure.
- Paging Procedure





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- Handover Types.
- Frequency Hoping.

5) Radio Wave Propagation-(1 Hour)

- Basic Definition.
- Propagation Mechanism.
- Fading.
- Diversity antennae systems.
- Interference.

6) Mobility and call processing in GSM network-(45 min)

- Attach and location update process.
- Mobile Calls.
- Security in GSM.

7) GSM Services-(15 min)

- Teleservices.
- Bearer services.
- Supplementary services.
- Short message.
- CAMEL and location services.



Quality



Cost Effective



Wireless Engineering



Service