

## Experiment 9:

### GSM SERVICE

GSM stands for Global System for Mobile Communications. It is a standard developed to describe protocols for second-generation (2G) digital cellular networks used by mobile phones. GSM is the most widely used standard for mobile communication in the world.

GSM uses digital technology for both voice and data transmission. This allows for clearer and more reliable communication compared to earlier analog systems. GSM uses Subscriber Identity Module (SIM) cards to identify and authenticate users.

Digital Signal Transmission  
International Roaming  
Compatibility  
• SIM Cards  
Security  
• Efficient Use of Spectrum

### Features of GSM are:

1. Supports international roaming
2. Clear voice clarity
3. Ability to support multiple handheld devices.
4. Spectral/frequency efficiency
5. Low powered handheld devices.
6. Ease of accessing network
7. International ISDN compatibility.
8. Low service cost.
9. New features and services.

GSM is having 4 different sizes of cells are used in GSM:

1. Macro: In this size of cell, Base Station antenna is installed.
2. Micro: In this size of cell, antenna height is less than the average roof level.
3. Pico: Small cells' diameter of few meters.
4. Umbrella: It covers the shadowed (Fill the gaps between cells) regions.