PRACTICAL SESSION 1

RECEIVED SIGNAL STRENGTH(RSS) IN GSM & WIFI
Understanding the Use of dBs in Day-to-Day Communication

EEEN 462– ANALOGUE COMMUNICATION SYSTEMS

Friday, September 12, 2025

RECEIVE SIGNAL LEVEL IN GSM

1. Go to settings on your phone and change the "**Network Mode**" to '**GSM**' or "**2G Only.**" whichever is supported.

2. Go the keyboard and type '*#0011# to enter the **service mode** for Samsung or **search on Google** how to enter service mode for other types of phones.

3. Write down the following:
    a)   Public Landline Mobile Number(PLMN)
    b)   Location Area Code(LAC)
    c)   Receive (RX) Power(Pwr)
    d)   Broadcast Control Channel (BCCH)
    e)   Receive Power (RX Pwr)

RECEIVE SIGNAL LEVELS FOR WIFI

1. Download the App: '**Netspot**' from the Internet and install on your phone.

2. Start **Netspot** and select '**WiFi Inspector.**"

3. **Click on 'Networks.'** Write down the following for each network shown on your device:
   a) Band
   b) Signal strength

4. **Click on 'Channels'.** Write down available channels in the following bands
   a) 2.4GHz
   b) 5 GHz

5. **Click on 'Comparison'** and draw the graph you get.
   1. Explain the graph.
   2. How is communication supported on overlapping channels?

WHAT IS A GOOD RECEIVE SIGNAL STRENGTH FOR A CELL PHONE?

SIGNAL STRENGTH	CONNECTION QUALITY
-50 to –79 dBm	Excellent (~4 to 5 bars)
-80 to -89 dBm	Good (~3 to 4 bars)
-90 to -109 dBm	Fair (~2 to 3 bars)
-100 to -109 dBm	Weak (~1 to 2 bars)