WIRELESS COMMUNICATION LAB

ETEC 463

LIST OF EXPERIMENTS

(as per GGSIPU Syllabus)

1. Write a program in Scilab to Calculate Frequency Reuse Distance, Co-Channel Interference reduction factor, Cellular System Capacity, S/I Ratio for a given variable.
2. Write a Program in Scilab to calculate maximum traffic intensity and maximum no. of users accommodated in Erlang B and Erlang C system for given no of channels.
3. Write a Program in Scilab to calculate Bit Error rate performance of BPSK modulated signal over only AWGN channel and AWGN and Rayleigh channel both.
4. Program in Scilab to Generate Walsh Codes and then spread the user information using it.
5. Program in Scilab to Generate PN Sequence for CDMA Systems.
6. Write a Program in NS3 to connect Wifi to Bus (CSMA) Network.
7. Write a Program in NS3 to create Wifi Network in Simple Infrastructure mode (of nodes).
8. Write a Program in NS3 to Create a wireless mobile ad-hoc network between three nodes.
9. Write a program in Scilab to simulate 3G WCDMA transmission and reception. Plot the graph for each stage.
10. Write a Program in Scilab to study the variation in channel capacities of 4G MIMO systems (2x2,3x3, 4x4 systems) and plot the graph.

LIST OF EXPERIMENTS

(Beyond Curricula)

1. Configuring Access Point with bridging mode (Point to Point and Point to Multi Point).
2. Configuring Routing between wired and wireless Networks.
3. Configuring Security in wireless network with and without infrastructure support.
4. Write a Review paper on Latest Technologies/ Techniques to be used to implement 5G in India and how it will support Green Communication in India.