

## **MCA 406C: Wireless Communication and Mobile Computing**

Mobile radio systems-, Paging systems, cordless telephone system, cellular telephone system, Cellular Concept: Frequency reuse, channel assignment, hand off, Interference and cell splitting, sectoring, Improving Coverage and capacity in Cellular systems. Propagation modeling: Outdoor/ Indoor Propagation models, Small scale Multipath propagation- Rayleigh fading, Ricean Fading, Nakagami fading, Shadowing, lognormal shadowing fading model, outage probability, coverage estimation under shadowing, and multipath fading. Wireless Networks 802.11, frequency-hopping, encoding and modulation, MAC Layer Protocol Architecture

Multiple access with collision avoidance protocol, Virtual Carrier-Sensing, DCF Protocol, PCF Operation.

### **References:**

1. Rappaport, Wireless communications: principal and practice , Pearson ed.
2. Matthew s. Gast, 802.11 wireless networks, O'reilly
3. Andrea Goldsmith ,Wireless communication , cambridge university press ed .
4. JochenSchiller , Mobile communications, phi/person edu., 2nd ed.,