

## **CS 511: MOBILE COMPUTING (3-0-0: 3)**

Introduction, issues in mobile computing, Overview of wireless telephony: Cellular concept, GSM, channel structure, location management: HLR-VLR, Hierarchical, Hands off, Channel allocation in cellular systems, CDMA, GPRS.

Wireless Networking, wireless LAN overview: Mac issues, IEEE 802.11, Wireless multiple access protocols, TCP over wireless applications. Data broadcasting, Mobile IP, WAP: Architecture, Protocol stack, Application environment, Applications.

Data management issues, Data replication for mobile computers, adaptive clustering for mobile wireless networks, File system, Disconnected operations.

Mobile data Access system: Mobility issues, Mobile Agent, on demand services, broadcast service, Transaction processing, security and fault tolerance.

### **Text Books and References**

1. Frank Adelstein, SKS Gupta, Golden Richard III and Loren Schwiebert "Fundamentals of Mobile and Pervasive Computing", McGraw-Hill Professional.
2. J.Schiller, "Mobile Communication".
3. M.V.D. Heijden, M.taylor "Understanding WAP", Artech House.
4. Charles perkins, "Mobile IP"