

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E. Computer Engineering

(Wireless Mobile Computing)

Semester: I

Subject Name: Wireless Networks and Mobile Computing

Subject Code: 715303

Course Content:

Mobility Support in IEEE 802.11 WLAN: Issues and Enhancement, QoS support for IEEE 802.11 wireless LAN Performance Limitations of IEEE 802.11 Networks and Potential Enhancements, Saturation Performance Analysis of IEEE 802.11 Distributed Coordination Function, Dynamic Random Access for Wireless LAN with Multipacket Reception, Wireless LAN MAC Protocols Using Busy Tones and Jamming Signals

MAC and Routing Protocols for IEEE 802.11 Wireless Mesh Networks, Throughput Analysis of the IEEE 802.11e Enhanced Distributed Channel Access, Piconet and Scatternet management in Bluetooth Networks

TCP performance in Bluetooth piconets, Scheduling in Bluetooth Networks, Scatternet Formation and Self-Routing in Bluetooth Networks, High Capacity Bluetooth Access Point Design for Interference Elimination

Text Books:

1. Mobile and Wireless Design Essentials by Martyn Mallick, John Wiley & Sons
2. J. Schiller, Mobile Communications, Addison –Wesley, 2003

Reference Books:

1. Introduction to Wireless and Mobile Systems by Cengage Learning (Thompson)
2. T. S. Rapport, Wireless Communications, Principle and Practices
3. Forouzan, Data Communications and Networking, TMH