

Sardar Vallabhbhai Patel Institute of Technology, Vasad
Department Of Information Technology & Computer Engineering

Syllabus for Mid Semester Exam September '19

Subject: Mobile Computing & Wireless Communication (2170710)

- Introduction, Transmission Fundamentals-Signals for Conveying Information, Analog and Digital Data Transmission, Channel Capacity, Transmission Media, Multiplexing
- Communication Networks- LANs, MANs, and WANs, Switching Techniques, Circuit Switching, Packet Switching
- Protocols and the TCP/IP Suite- The Need for a Protocol Architecture, The *TCP/IP* Protocol Architecture, The OSI Model, Internetworking
- Cellular Wireless Networks-Principles of Cellular Networks, First-Generation Analog Second-Generation TDMA Second-Generation CDMA, Third-Generation Systems
- Antennas and Propagation-Antennas, Propagation Modes, Line-of-Sight Transmission, Fading in the Mobile Environment
- Multiple access in Wireless System – Multiple access scheme, frequency division multiple access, Time division multiple access, code division multiple access, space division multiple access, packet radio access, multiple access with collision avoidance.
- Global system for mobile communication - Global system for mobile communication, GSM architecture, GSM entities, call routing in GSM, PLMN interface, GSM addresses and identifiers, network aspects in GSM, GSM frequency allocation, authentication and security
- General packet radio service(GPRS) - GPRS and packet data network, GPRS network architecture, GPRS network operation, data services in GPRS, Applications of GPRS, Billing and charging in GPRS
- Wireless System Operations and standards - Cordless Systems, Wireless Local Loop, Wi MAX and IEEE 802.16 Broadband .Wireless Access Standards. Mobile IP and WAP.
- Wi-Fi and the IEEE 802.11 Wireless LAN Standard – IEEE 802 architecture, IEEE 802.11 architecture and services, IEEE 802.11 Medium access control, IEEE 802.11 physical layer, Wi-Fi protected access.
- Bluetooth, - Radio specification, baseband specification, link manager specification, logical link control and adaption protocol.
- Android Architecture, Application Framework, The Application components, manifest file, downloading and installing Android, Exploring the Development Environment, Developing and Executing the first Android application, The Linear Layout, The Relative Layout.

Course Coordinator

Priyanka P Shah
IT Dept,

