



STANLEY

COLLEGE OF ENGINEERING & TECHNOLOGY FOR WOMEN
(Approved by AICTE , New Delhi | Affiliated to Osmania University ,Hyderabad)
Address : Chapel Road, Abids ,Hyderabad

CS 416

MOBILE COMPUTING

UNIT-I

Introduction and applications of mobile computing, Wireless transmission: Frequencies, Signals, Antennas, Signal Propagation, Multiplexing, Modulation , Spread Spectrum, Cellular systems.

Medium access control, SDMA, FDMA, TDMA, CDMA, Comparisons.

UNIT-II

Telecommunication system, GSM, DECT, TETRA, Satellite systems: Applications, Basics, routing, localization, Handover. Broadcast systems: cyclic representation of data, Digital Audio Broadcasting, Digital video broadcasting, convergence of Broadcasting and Mobile Communications.

UNIT-III

Wireless LAN: Infrared Vs Radio transmission, Infrastructure and Adhoc Networks, HYPERLAN, Bluetooth.

UNIT-IV

Mobile IP, Dynamic Host Configuration Protocol, Mobile Adhoc Networks, Mobile Transport Layer, Traditional TCP Classical TCP improvements, TCP over 2.5/3G Wireless Networks, Performance Enhancing Proxies.

UNIT-V

Operating Systems for Mobile Devices: Features of Windows CE, PalmOS, Symbian OS, and Java Card Support for Mobility: Pile systems, WWW, Wireless Application Protocol.

Suggested Reading:

1. Schiller, *Mobile Communications*, 2nd Edition Pearson Education, India, 2003.
1. Hansmann, Merk, Nicklous, Stober, *Principles of Mobile Computing*. 2nd Edition, Springer International Edition, 2003.
1. Frank Adelstein, Sandeep K.S. Gupta "*Fundamentals of Mobile and Pervasive Computing* ",Tata McGraw-Hill 2005.7 18