(EC506) WIRELESS COMMUNICATIONS AND NETWORKS (ELECTIVE - I)

Objective of the Course :
The course Introduces the student to technologies and architectures of wireless communications. It helps the student s to be familiar with important types of wireless networks, their applications, design approaches and assess their relative merits.

UNIT - I
The concept of spread spectrum, Frequency hopping spread spectrum, Direct sequence spread spectrum, Code division multiple access, Generation of spreading sequences.

UNIT - II
Error Detection, Block error correction codes, Convolutional codes, automatic repeat request.

UNIT - III
Cordless systems, Wireless local loop, IEEe 802.16 fixed broadband wireless access standard, Mobile IP, Wireless application protocol.

UNIT - IV
Infrared LANs, Spread spectrum LANs, Narrowband microwave LANs, IEEE 802 Protocol architecture, IEEE 802.11 Architecture and services, IEEE 802.11 Medium access control, IEEE 802.11 Physical layer.

UNIT - V
Bluetooth overview, Radio specification, Baseband specification, Link manager specification, Logical link control and adaptation protocol.

REFERENCE BOOKS :

1. William Stallings, "Wireless communications and Networking", Prentice Hall, India

2. symen Haykin, Michael Moher"Modern wireless Communications", Pearson, 2005.

3. Kamilo Feher, "Wireless Digital Communications", Prentice Hall, India

4. Dharma Prakash Agarwal, Qing- An Zeng, "Introduction to Wireless and Mobile Systems", Thomson , 2006

5. Garry J .Mullet, "Introduction to Wireless Telecommunication systems and Networks", cenage learning