20ES015 - Wireless Communication and Networks

UNIT – I
Fundamentals of Wireless Communications: The concept of spread spectrum, Frequency hopping spread spectrum, Directsequence spread spectrum, Multiple access Techniques for Wireless Communications, Gen- eration of spreading sequences**.**

UNIT – II
Cellular Networks: Principles of Cellular Networks, First Generation Analog, Second Generation TDMA, Second Generation CDMA, 2.5 G Wireless Networks, Third Generation Systems, LTE

UNIT – III
Cordless, WLL and Broadband Systems : Cordless systems, Paging system, Cellular Telephone system, The Cellular Concept-System Design fundamentals, Wireless local loop, IEEE 802.16 fixed broadband wireless access standard, Mobile IP, Wireless application protocol.

UNIT – IV
Wireless LANs: 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:
Bluetooth overview, Radio specification, Baseband specification, Link manager specification, Logical link control and adaptation protocol

TEXTBOOKS:
1. WilliamStallings,"WirelesscommunicationsandNetworking",PrenticeHall,India2001
2. T S Rappaport, "Wireless Communications: Principles and Practice", 2nd Edition, Prentice Hall, India2000.

REFERENCEBOOKS:
1. KamiloFeher,"WirelessDigitalCommunications",PrenticeHall,India2001
2. Dharma Prakash Agarwal, Qing- An Zeng, "Introduction to Wireless and Mobile Systems", Thomson , 2006
3. Garry J .Mullet, "Introduction to Wireless Telecommunication systems and Networks", cenage learning2001
4. SimonHaykin,MichaelMoher,"ModernwirelessCommunications",Pearson,2005