Bhoj Reddy Engineering College for Women: Hyderabad

Department of Electronics and Communication Engineering

Lesson Plan of faculty member for the academic year 2015 – 2016

Name of the faculty member and Department : C.Srinivas , ECE

Subject: Wireless Communication Networks Class: IV B.Tech.

Branch & Section: ECE-B Semester: II

No. of lectures per week: 3+1 (Tutorial)

Lecture Number	Date(s)	Topic to be covered
	UNIT- I	**Introduction to wireless communication system**
1.	10/12/15	Evolution of mobile radio communications, Examples of wireless communication system
2.	11/12/15	Paging systems,
3.	11/12/15	Comparisons of various wireless systems
4.	10/12/15,11/12/15,12/12/15	Tutorial (G3, G2 , G1): Comparisons of various wireless systems
5.	17/12/15	Cordless telephone systems
	UNIT- II	**Modern wireless communication systems**
6.	18/12/15	2G cellular networks,
7.	18/12/15	Frequency reuse
8.	17/12/15,18/12/15,19/12/15	Tutorial (G3, G2 , G1): Frequency reuse
9.	31/12/15	Channel assignment strategies 3G Wireless networks
10.	1/12/15	Wireless local area networks
11.	1/12/15	Wireless in local loop
12.	31/12/15, 1/1/16, 2/1/16	Tutorial (G3, G2 , G1): Wireless in local loop
13.	7/1/16	Blue tooth and personal area networks Personal Area networks
	UNIT – III	**Cellular System Design Fundamentals**
14.	8/1/16	Spectrum allocation,
15.	8/1/16	Basic cellular system, Handoff strategies, Interference and system capacity
16.	7/1/16, 8/1/16, 9/1/16	Tutorial (G3, G2 , G1): Handoff Strategies
17.	–--------,----------,16/1/16	Tutorial (G1): Interference and system Capacity
18.	21/1/16	Trunking and grade off service, Improving coverage

19.	22/1/16	Improving capacity,
20.	22/1/16	Cell splitting
21.	21/1/16, 22/1/16, 23/1/16	Tutorial (G3, G2 , G1): Cell splitting
	UNIT-IV	**Multiple access techniques for wireless communication**
22.	28/1/16	Introduction to multiple access, FDMA
23.	29/1/16	TDMA
24.	29/1/16	Spread Spectrum multiple access
25.	28/1/16, 29/1/16, 30/1/16	Tutorial (G3, G2 , G1): Spread spectrum multiple access
26.	25/2/16	Space divided multiple access Packet radio, capacity of a cellular system
	UNIT – V	**Wireless Networking**
27.	26/2/16	Difference between wireless & fixed telephone networks
28.	26/2/16	Difference between wireless & fixed telephone networks
29.	25/2/16, 26/2/16, 27/2/16	Tutorial (G3, G2 , G1): Difference between wireless and fixed telephone networks.
30.	3/3/16	Development of wireless n/w, Fixed n/w transmission hierarchy
31.	4/3/16	Traffic routing in wireless n/w, Wireless data services
32.	4/3/16	Common channel signaling
33.	3/3/16, 4/3/16, 5/3/16	Tutorial (G3, G2 , G1): Common Channel signalling
	UNIT – VI	**Wireless WAN**
34.	10/3/16	Mechanism to support a mobile environment Communication in the infrastructure
35.	11/3/16	IS-95 CDMA forward Channel ,
36.	11/3/16	IS-95 CDMA Reverse channel
37.	10/3/16, 11/3/16, 12/3/16	Tutorial (G3, G2 , G1): IS-95 CDMA Reverse Channel
38.	17/3/16	Packet and frame formats in IS-95, IMT-2000
39.	18/3/16	Forward channel in W-CDMA and CDMA 2000 ,
40.	18/3/16	Reverse channel in W-CDMA and CDMA 2000
41.	17/3/16, 18/3/16, 19/3/16	Tutorial (G3, G2 , G1): IS-95 CDMA Reverse Channel
42.	24/3/16	GPRS and higher data rates, short messaging service in GPRS mobile application protocols.

43.	24/3/16,----------, 26/3/16	Tutorial (G3,G1): GPRS and higher data rates
	UNIT – VII	**Wireless LAN**
44.	31/3/16	Historical overview of the LAN industry Evolution of the WLAN industry
45.	1/4/16	Wireless home networking, IEEE 802.11.The PHY layer MAC layer, wireless ATM,Hyperlan,Hyperlan2
	UNIT – VIII	**Orthogonal frequency division multiplexing**
46.	1/4/16	Basic principles of orthogonally Single versus multi channel systems
47.	31/3/16, 1/4/16, 2/4/16	Tutorial (G3, G2 , G1): Orthognality
48.	7/4/16	OFDM block diagram, Signal mathematical representation
49.	7/4/16,----------,9/4/16	Tutorial (G3, G1): Signal Mathematical Representation
50.	–------,----------,16/4/16 (T)	Tutorial (G1): OFDM Revision

TEXT BOOKS:

1. Theodore S.Rappaport," Wireless Communications & applications" Pearson Education 2003.
2. Upen Dallal –" Wireless communication", Oxford University Press 2010.

REFERENCE BOOKS:

1. Dr. Sunil kumar S.Manavi "Wireless & Mobile Networks Concepts and protocols".
2. Jon W. Mark and Weihua Zhqung, "Wireless communication and Networking", PHI,2005.

Name : Signature of the faculty with date:

Signature of the HOD :

HoD Signature: