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 : Ms. Radhika.R , ECE

Subject: Wireless Communications & Networks Class: IV B.Tech.

Branch & Section: ECE-A 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	Introduction, Evolution of mobile radio communications
1.	11/12/15	Examples of wireless communication system
2.	12/12/15	Paging systems
3.	12/12/15	Paging systems
4.	10/12/15,11/12/15,12/12/15	Tutorial-Related problems(G2,G1,G3)
5.	17/12/15	Timing Diagrams
6.	18/12/15	Cordless telephone systems
7.	19/12/15	Comparision of various wireless systems.
8.	17/12/15,18/12/15,19/12/15	Tutorial-Related problems (G2,G1,G3)
UNIT- II Modern wireless communication systems		
9.	31/12/15	2G cellular networks, Frequency reuse
10.	01/1/16	Channel assignment strategies,3G Wireless networks
11.	02/1/16	Wireless local area networks
12.	02/1/16	Wireless local area networks
13.	31/12/15,01/1/16,02/1/16	Tutorial- (G2,G1,G3)- Wireless local area networks
14.	07/1/16	Third generation wireless networks
15.	08/1/16	Bluetooth and personal area networks
16.	9/1/16	Personal Area networks
17.	9/1/16	Personal Area networks
18.	07/1/16,08/1/16,9/1/16	Tutorial- (G2,G1,G3)- Bluetooth
19.	14/1/16	Wireless in local loop
20.	16/1/16	Comparision of second and third generation networks
21.	16/1/16	WLL
22.	14/1/16,----,16/1/16	Tutorial - (G2,G1,G3)
UNIT – III Cellular System Design Fundamentals		
23.	21/1/2016	Spectrum allocation
24.	22/1/2016	Basic cellular system
25.	23/1/2016	Handoff strategies
26.	23/1/2016	Grade Of Service
27.	21/1/16,22/1/16,23/1/2016	Tutorial - (G2,G1,G3)-Interference and system capacity
23.	28/1/2016	Trunking and grade off service
28.	29/1/2016	Improving coverage and capacity,
29.	30/1/2016	Cell splitting
30.	30/1/2016	Problems
31.	28/1/16,29/1/16,30/1/2016	Tutorial - (G2,G1,G3)
UNIT IV Multiple access techniques for wireless communication		
32.	25/2/16	Introduction to multiple access
33.	26/2/16	FDMA
34.	27/2/16	TDMA
35.	27/2/16	Time Division Multiple Access.
36.	25/2/16,26/2/16,27/2/16	Tutorial- (G2,G1,--)-multiple access techniques

37.	03/3/16	Spread Spectrum multiple access
38.	04/3/16	Space divided multiple access
39.	05/3/16	Packet radio
40.	05/3/16	capacity of a cellular system
41.	03/3/16,05/3/16,05/3/16	Tutorial - (G2,G1,G3)- Packet radio
UNIT V Wireless networking		
42.	10/3/16	Difference b/w wireless & fixed telephone n/w, Development of wireless n/w
43.	11/3/16	Wireless data services
44.	12/3/16	Fixed n/w transmission hierarchy, Traffic routing in wireless n/w
45.	12/3/16	Tutorial - (G2,G1,G3)-Wireless data services
46.	10/3/16,11/3/16,12/3/16	Wireless data services, Common channel signaling
UNIT VI Wireless WAN		
43.	17/3/16	Mechanism to support a mobile environment, Communication in the infrastructure,
44.	18/3/16	Forward channel in W-CDMA and CDMA 2000 , Reverse channel in W-CDMA and CDMA 2000
45.	19/3/16	IS-95 CDMA forward Channel
46.	19/3/16	Packet and frame formats in IS-95, imt-2000,IS 95 Cdma reverse channel
47.	17/3/16,18/3/16,19/3/16	Tutorial - (G2,G1,G3)- short messaging service in GPRS
UNIT – VII Wireless LAN		
48.	24/3/16	Historical overview of the LAN industry
	25/3/16	Evolution of the WLAN industry, Wireless home networking, IEEE 802.11.The PHY layer
	26/3/16	MAC layer, wireless ATM
	26/3/16	HyperlanTutorial - (G2,G1,G3)
49.	24/3/16,25/3/16,26/3/16	Tutorial - (G2,G1,G3)
UNIT – VIII Orthogonal frequency division multiplexing		
50.	31/3/2016	Introduction to OFDM
51.	1/4/2016	Basic principles of orthogonally
52.	2/4/2016	Single versus multi channel systems
53.	2/4/2016	Comparision of single versus multi channel systems
54.	31/4/2016,1/4/,2/4/2016	Tutorial - (G2,G1,G3) OFDM block diagram and its explanation
55.	7/4/2016	OFDM Signal mathematical representation
56.	8/4/2016	OFDM Signal mathematical representation
57.	9/4/2016	Discussion on previous question paper
58.	9/4/2016	Discussion on previous question paper
59.	7/4/ ,8/4/2016,9/4/2016	Tutorial - (G2,G1,G3)

TEXT BOOKS :

1. Theodore S.Rappaport,"wireless communications & applications" , Pearson Education – 2003.
2. Upen Dallal –" wireless communication",Oxford University Press , 2010.
3. Kaveh Pahalavan,Prashant Krishna Murthy – "Principles of Wireless Networks"- A united approach", Pearson Education, 2002.

REFERENCES :

1. Dr. Sunil kumar S.Manavi "wireless & mobile networks", concepts and Protocols ", Wiley India 2010.

Name : Signature of the faculty with date:

HOD Signature: