SREE VIDYANIKETHAN ENGINEERING COLLEGE(AUTONOMOUS)
SREE SAINATH NAGAR, A. RANGAMPET-517 102

Department of Computer Science & Engineering

Lesson Plan cum Diary 2015-16

Name of the Subject :Wireless Networks(**14MT16302**)
Name of the faculty Member :M. Prameela
Class& Semester :I M.Tech I Semester
Branch : M.Tech (CNIS)

S. No.	Topic	No. of periods required	Date(s) covered	No. of periods used	Book(s) followed	Topics for self study
Unit-I:Introduction, Probability, Statistics, and Traffic Theories						
1.	History, Characteristics and Fundamentals of cellular Systems,Cellular System Infrastructure.	1			T1	Stochastic processes
2.	Satellite Systems, Network Protocols.	1			T1	
3.	Sensor Networks, Wireless LANs,MANs and PANs.	1			T1	
4.	Introduction, Basic Probability	2			T1	
5.	Statistics Theories, Traffic Theory	3			T1	
6.	Basic Queuing Systems	3			T1	
Total no of periods required:		**11**	Total no of periods used:			
Unit-II: Mobile Radio Propagation, Channel Coding and Error Control						
7.	Introduction, Types of Radio Waves,Propagation Mechanisms, Free Space Propagation, Land Propagation.	1			T1	Advanced Error control Techniques
8.	Path Loss, Slow Fading, Fast Fading.	1			T1	
9.	Doppler Effect, Delay Spread, Intersymbol Interference.	2			T1	
10.	Coherence Bandwidth, Cochannel Interference.	1			T1	
11.	Introduction, Liner Block Codes.	1			T1	
12.	Cyclic Codes, Cyclic Redundancy Check.	1			T1	
13.	Convolutional Codes	1			T1	
14.	Interleaver, Turbo Codes.	1			T1	

15.	ARQ Techniques.	1			T1	
	Total no of periods required:	**10**		Total no of periods used:		
Unit-III: Multiple Radio Access, Mutiple Division Techniques for Traffic Channels, Network Protocols						
16.	Introduction, Multiple Radio Access Protocols	1			T1	Channel Allocation
17.	Multiple Radio Access Protocols	1			T1	
18.	Contention Based Protocols	2			T1	
19.	Introduction	1			T1	
20.	Concepts and Models for Multiple Divisions	2			T1	
21.	Modulation Techniques	2			T1	
22.	Introduction, TCP/IP Protocol	1			T1	
23.	TCP Over Wireless	1			T1	
24.	Internet Protocol Version (IPV6).	1			T1	
	Total no of periods required:	**12**	Total no of periods used:			
UNIT IV: Ad Hoc Networks and Sensor Networks						
25.	Introduction, Characteristics of MANETs, Applications	1			T1	Data Transmission in adhoc and sensor Networks
26.	Table Driven Routing Protocols	1			T1	
27.	Source Initiated Routing Protocols	1			T1	
28.	Hybrid Protocols	1			T1	
29.	Vehicular Area Network, Security Issues in Mobile Ad Hoc Networks	1			T1	
30.	Network Simulators	1			T1	
31.	Introduction, Fixed Wireless Sensor Networks	1			T1	
32.	Wireless Sensor Networks, Sensor Deployment	1			T1	
33.	Network Characteristics	1			T1	
34.	Design Issues in Sensor Networks	1			T1	
35.	Secured Communication	1			T1	
	Total no of periods required:	**11**		Total no of periods used:		
UNIT V: Wireless LANs, MANs, and PANs						
36	Introduction, Wireless Local Area Networks (WLANs)	1			T1	Femto cell Network, ultra wide band technology
37	Enhancement for IEEE 802.11 WLANs	2			T1	
38	Wireless Metropolitan Area Networks (WMANs) using WiMAX and Mesh Networks	2			T1	

39	Mesh Networks	2			T1	
40	Wireless Personal Area Networks (WPANs)	2			T1	
41	Zigbee	2			T1	
	Total no of periods required:	**11**	Total no of periods used:			
	Grand total of periods required:	**55**	**Grand total of periods used:**			

TEXT BOOKS:

T1: Dharma PrakashAgarwal, Qing-AnZeng, "*Introduction to Wireless & Mobile Systems*", CENGAGE Learning Third Edition, 2011.

Reference Books:

R1: Theodore S. Rappaport, "*Wireless Communications–Principles and Practice*", Second Edition, PHI, 2002.

R2: William Stallings, "*Wireless communications and Networks*", Pearson education, 2005.

R3: C. Siva Rama Murthy, B.S. Manoj, "*Ad Hoc Wireless Networks – Architectures and Protocols*", Pearson Education Second Edition, 2004.

Signature of the Faculty Member **Signature of the HOD**