

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING****Course Code / Name :U14CSE12/Wireless Networks****Class (Year / Programme / Department / Section): IV/BE/CSE/A&B****LESSON PLAN**

<b>UNIT -1 INTRODUCTION AND WIRELESS LANS</b>				
<b>Session No</b>	<b>Topic</b>	<b>Duration in Minutes</b>	<b>Teaching Aid</b>	<b>Book Referred</b>
1	Frequency Spectrum - Signal Propagation	45	BB	R2
2	Modulation – Multiplexing– Spread Spectrum	45	BB	R2
3	IEEE 802.11 Wireless LANs	45	BB	R2
4	Wireless LAN Equipment – WLAN Topologies – WLAN Technologies	45	PPT	R2
5	Architecture and Protocols	45	PPT	R2
6	Data Link Layer – Beacon Frame	45	PPT	R2
7	Joining an Existing Basic Service Set	45	BB	R2
8	Roaming in a Wireless LAN – Security in Wireless LANs	45	BB	R2
9	Power Management – Other WLAN Standards	45	BB	R2
<b>UNIT-2 WIRELESS NETWORKS</b>				
1	Ultra-Wideband – Standard and Applications	45	PPT	R2
2	Radio-Frequency Identification – System – Applications	45	PPT	R2
3	Wireless Metropolitan Area Networks	45	PPT	R2
4	Wireless Broadband : IEEE 802.16 – WiMAX – PHY – MAC	45	BB	R2
5	Spectrum Allocation – Satellite – Communication – Systems	45	BB	R2
6	Wireless Sensor Networks	45	BB	R2
7	Applications – Sensor Node	45	BB	R2
8	Self-Organized Networks	45	PPT	R2
9	ZigBee	45	PPT	R2
<b>UNIT -3 2G, 2.5G CELLULAR NETWORKS</b>				
1	Global System for Mobile (GSM)	45	PPT	R1
2	Network Architecture – Location Area Update	45	BB	R1
3	Call Routing – Handoff	45	BB	R1
4	General Packet Radio Service (GPRS)	45	BB	R1
5	Packet Switching – GPRS Architecture – GPRS Services – GPRS Terminals	45	PPT	R1
6	Packet Data Protocol Context	45	PPT	R1
7	Enhanced Data Rates for Global Evolution (EDGE)	45	PPT	R1
8	High Speed Circuit Switched Data (HSCSD)	45	PPT	R3
9	Code Division Multiple Access (CDMA)– Concept – IS-95 – Software Handoff	45	PPT	R3
10	GSM vs. CDMA – 2G Mobile Wireless Services	45	PPT	R3
11	WAP and iMode – SMS	45	PPT	R3
<b>UNIT -4 3G CELLULAR NETWORKS</b>				
1	UMTS/WCDMA	45	BB	R1
2	cdma2000	45	BB	R1
3	UMTS/WCDMA versus cdma2000	45	PPT	R1

4	UMTS	45	PPT	R1
5	Channel Structure on the Air Interface	45	PPT	R1
6	UTRAN	45	PPT	R1
7	Core and Radio Network Management	45	BB	R1
8	UMTS Security	45	PPT	R1
9	HSDPA	45	PPT	R1
<b>UNIT -5 4G CELLULAR NETWORKS</b>				
1	4G Features and Challenges – 4G Applications	45	PPT	R1
2	Multicarrier modulation – Smart Antenna Techniques	45	PPT	R1
3	OFDM - MIMO Techniques	45	PPT	R1
4	Adaptive Modulation and Coding with Time-Slot Scheduler	45	PPT	R1
5	BLAST system	45	PPT	R1
6	Software-Defined Radio – Cognitive Radio	45	PPT	R1
7	LTE – Network Architecture and Interfaces	45	PPT	R1
8	FDD Air Interface and Radio Networks	45	PPT	R1
9	Scheduling – Mobility Management and Power Optimization	45	PPT	R2
10	LTE Security Architecture	45	PPT	R2
11	Interconnection with UMTS and GSM	45	PPT	R2
12	LTE Advanced	45	PPT	R2
13	Introduction to 5G.	45	PPT	R2