

## LESSION PLAN

**NAME OF THE FACULTY** : - MS. MANJU

**DISCIPLINE** : - ECE

**SEMESTER** : - SIXTH

**SUBJECT** : - WIRELESS AND MOBILE COMMUNICATION

**LESSON PLAN DURATION** : - 15 weeks (from January 2018 to April 2018)

**WORK LOAD (LECTURE/PRACTICAL) PER WEEK (IN HOURS):-** LECTURE-03, PRACTIACL-06

WEEK	THEORY		PRACTICAL	
	LECTURE DAY	TOPIC (including assignment/test)	PRACTICAL DAY	TOPIC
1 <sup>st</sup>	1 <sup>st</sup>	Wireless Communication Basics	1 <sup>st</sup> Group-1	Study the features, specification and working of cellular mobile
	2 <sup>nd</sup>	Advantages of wireless communication		
	3 <sup>rd</sup>	Electromagnetic waves	2 <sup>nd</sup> Group-2	Study the features, specification and working of cellular mobile
	4 <sup>th</sup>	Frequency Spectrum used		
2 <sup>nd</sup>	5 <sup>th</sup>	Paging system	1 <sup>st</sup> Group-1	Signal strength measurement of various points from a transmitting antenna/cordless phone
	6 <sup>th</sup>	Paging system contd.		
	7 <sup>th</sup>	Cordless Telephone System	2 <sup>nd</sup> Group-2	Signal strength measurement of various points from a transmitting antenna/cordless phone
	8 <sup>th</sup>	Cellular Telephone System		
3 <sup>rd</sup>	9 <sup>th</sup>	Cellular Telephone System contd.	1 <sup>st</sup> Group-1	Visit of a Mobile Switching Centre(MSC) in the nearest M.S. facility provider
	10 <sup>th</sup>	Comparison of above wireless communication systems		
	11 <sup>th</sup>	Cellular telephone system Introduction to First Generation	2 <sup>nd</sup> Group-2	Visit of a Mobile Switching Centre(MSC) in the nearest M.S. facility

				provider
	12 <sup>th</sup>	Introduction to Second Generation		
4 <sup>th</sup>	13 <sup>th</sup>	Introduction to Third Generation	1 <sup>st</sup> Group-1	Demonstration of Base Trans Receiver(BTS) with nearby cellular tower
	14 <sup>th</sup>	Introduction to Fourth Generation of cellular telephone system Assignment		
	15 <sup>th</sup>	Test	2 <sup>nd</sup> Group-2	Demonstration of Base Trans Receiver(BTS) with nearby cellular tower
	16 <sup>th</sup>	Cellular Concept Cell area		
5 <sup>th</sup>	17 <sup>th</sup>	Capacity of cell	1 <sup>st</sup> Group-1	Observing call processing of GSM trainer Kit
	18 <sup>th</sup>	Frequency Response		
	19 <sup>th</sup>	Co-channel Interference	2 <sup>nd</sup> Group-2	Observing call processing of GSM trainer Kit
	20 <sup>th</sup>	Adjacent channel Interference		
6 <sup>th</sup>	21 <sup>th</sup>	Power Control for reducing Interference	1 <sup>st</sup> Group-1	Observing call processing of CDMA trainer Kit
	22 <sup>th</sup>	Improving coverage and capacity in cellular system Cell Splitting		
	23 <sup>th</sup>	Cell Splitting contd.	2 <sup>nd</sup> Group-2	Observing call processing of CDMA trainer Kit
	24 <sup>th</sup>	Sectoring		
7 <sup>th</sup>	25 <sup>th</sup>	Repeater for Range Extension	1 <sup>st</sup> Group-1	Pairing of two devices using Bluetooth
	26 <sup>th</sup>	Multiple Access Techniques for Wireless Communication Introduction to Multiple Accesses		
	27 <sup>th</sup>	Introduction to Multiple Accesses contd.	2 <sup>nd</sup> Group-2	Pairing of two devices using Bluetooth
	28 <sup>th</sup>	Frequency Division Multiple Access(FDMA)		
8 <sup>th</sup>	29 <sup>th</sup>	Frequency Division Multiple Access contd.	1 <sup>st</sup> Group-1	Data transfer using WI-FI
	30 <sup>th</sup>	Time Division Multiple Access(TDMA)		
	31 <sup>th</sup>	Time Division Multiple Access CONTD.	2 <sup>nd</sup> Group-2	Data transfer using WI-FI
	32 <sup>th</sup>	Code Division Multiple Access (CDMA)		
9 <sup>th</sup>	33 <sup>th</sup>	Code Division Multiple Access (CDMA) CONTD.	1 <sup>st</sup> Group-1	Revision
	34 <sup>th</sup>	Spread Spectrum Multiple Access (SSMA)		

	35 <sup>th</sup>	Spread Spectrum Multiple Access (SSMA) contd.	2 <sup>nd</sup> Group-2	Revision
	36 <sup>th</sup>	Frequency Hopping spread Spectrum (FHSS)		
10 <sup>th</sup>	37 <sup>th</sup>	Frequency Hopping spread Spectrum (FHSS) contd.	1 <sup>st</sup> Group-1	Revision
	38 <sup>th</sup>	Frequency Hopping spread Spectrum (FHSS) contd.		
	39 <sup>th</sup>	Comparison of FDMA/TDMA/CDMA	2 <sup>nd</sup> Group-2	Revision
	40 <sup>th</sup>	Assignment work		
11 <sup>th</sup>	41 <sup>th</sup>	Test	1 <sup>st</sup> Group-1	
	42 <sup>th</sup>	Mobile Communication Systems Introduction of Global Systems for Mobile Communication (GSM)		
	43 <sup>th</sup>	GSM contd.	2 <sup>nd</sup> Group-2	
	44 <sup>th</sup>	GSM and its architecture		
12 <sup>th</sup>	45 <sup>th</sup>	Introduction of CDMA System	1 <sup>st</sup> Group-1	Revision
	46 <sup>th</sup>	CDMA System contd.		
	47 <sup>th</sup>	comparison of CDMA and GSM Systems	2 <sup>nd</sup> Group-2	Revision
	48 <sup>th</sup>	Introduction of GPRS Systems		
13 <sup>th</sup>	49 <sup>th</sup>	GPRS Systems contd.	1 <sup>st</sup> Group-1	Revision
	50 <sup>th</sup>	Introduction of GPS Systems		
	51 <sup>th</sup>	GPS Systems contd.	2 <sup>nd</sup> Group-2	Revision
	52 <sup>th</sup>	Comparison of GPS and GPRS system		
14 <sup>th</sup>	53 <sup>th</sup>	Introduction to Blue tooth	1 <sup>st</sup> Group-1	Revision
	54 <sup>th</sup>	Introduction to Wi-Fi		
	55 <sup>th</sup>	Digital and Data Communication Basic block diagram of digital and data communication system	2 <sup>nd</sup> Group-2	Revision
	56 <sup>th</sup>	Digital and Data Communication Basic block diagram of digital and data communication system contd.		
15 <sup>th</sup>	57 <sup>th</sup>	Data analog communication systems	1 <sup>st</sup> Group-1	Revision
	58 <sup>th</sup>	Digital and Data Communication comparison with data analog communication systems		
	59 <sup>th</sup>	Assignment	2 <sup>nd</sup> Group-2	Revision

	60 <sup>th</sup>	Test		
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