

Lesson Plan

Name of the Faculty : Dr. Amit Wason & Er. Sorabh Malhotra (Theory/Practical)

Discipline : Electronics and Communication Engineering

Semester : 8th

Subject : Wireless & Mobile Communication (ECE-402N)
Wireless & Mobile Communication Lab (ECE-408N)

Lesson Plan Duration : 15 weeks (from January, 2020 to April, 2020)

****Work Load (Lecture / Practical) per week (in hours)** : Lectures-04, Practical-03

Week	Theory		Practical	
	Lecture Day	Topic (including assignment / test)	Practical Day	Topic
1 st	1 st	Evolution of mobile radio communications	1 st	Introduction to CommSim and familiarization with its basic functions.
	2 nd	Examples of wireless comm. Systems		
	3 rd	Paging systems and Cordless telephone systems		
2 nd	4 th	Comparison of various wireless systems	2 nd	To study and simulate the Amplitude Modulation.
	5 th	Second generation cellular networks		
	6 th	Third generation wireless networks		
3 rd	7 th	Wireless in local loop	3 rd	To study and simulate the Amplitude demodulation.
	8 th	Wireless local area networks		
	9 th	Bluetooth and Personal Area networks.		
4 th	10 th	Spectrum Allocation, basic Cellular Systems	4 th	To study and simulate the Frequency Modulation.
	11 th	Performance Criteria, Operation of cellular systems		
	12 th	Analog cellular systems		
5 th	13 th	Digital Cellular Systems	5 th	First Internal Viva
	14 th	Frequency Reuse		
	15 th	Channel assignment strategies		
6 th	16 th	Channel assignment strategies	6 th	To study and simulate the Frequency Demodulation.
	17 th	Handoff Strategies		
	18 th	Handoff Strategies		
7 th	19 th	Interference and system capacity	7 th	To study and simulate the Amplitude shift keying.
	20 th	Tracking and grade off service		
	21 st	Improving coverage and capacity		
8 th	22 nd	Introduction to Multiple Access	8 th	To study and simulate the Frequency shift keying
	23 rd	FDMA		
	24 th	TDMA		

9 th	25 th	Spread Spectrum multiple Access	9 th	Second Internal Viva
	26 th	Space division multiple access		
	27 th	Packet		
10 th	28 th	Ratio capacity of a cellular system	10 th	To study and simulate the Phase shift keying
	29 th	GSM		
	30 th	GSM		
11 th	31 st	GSM	11 th	Implementation of M-PSK transmitter using SDR concept.
	32 nd	IS-95 CDMA		
	33 rd	IS-95 CDMA		
12 th	34 th	IS-95 CDMA	12 th	Implementation of M-PSK receiver using SDR.
	35 th	UMTS-IMT-2000		
	36 th	UMTS-IMT-2000		
13 th	37 th	UMTS-IMT-2000	13 th	Implementation of M-QAM transmitter using SDR.
	38 th	Signaling		
	39 th	Signaling		
14 th	40 th	Call Control	14 th	Design two-dimensional convolution to perform image edge detection.
	41 st	Call Control		
	42 nd	Mobility Management		
15 th	43 rd	Mobility Management	15 th	Third Internal Viva
	44 th	Location Tracing		
	45 th	Location Tracing		

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