

Lesson Plan

Name of the faculty: Naveen Partap Singh

Discipline: ECE

Semester: 4
TH

Subject: CS (Communication System)

Lesson Plan Duration: **15 weeks (from 22 March 2021 to 02 July 2021)**

Week	Theory		Practical	
	Lecture Day	Topic (including assignment / test)	Practical Day	Topic
1 st	1	AM/FM Transmitters		To observe the waveforms at different stages of a AM transmitter
	2	Classification of transmitters on basis of modulation	the 2	Revision
	3	service, frequency and p		
2 nd	4	Block diagram of AM transmitters and v stage	3	To observe the waveform different stages of a Radio Receiver
	5	Block diagram and working principles of FET and armstrong FM transmitters		Revision
	6	Principle and working with block diagram of super heterodyne AMr		
3 rd	7	Function of each block and typical wave input and output of each block	5	To align AM broadcast radio receiver
	8	Performance characteristics of a receiver sensitivity	radio	Revision
	9	selectivity, fidelity		
4 th	10	WRITTEN TEST	7	To identify and study the variation of antennas used in different frequencies
	11	image rejection ratio and their measurement procedure	8	ASSIGNMENT NO.1/ REVISION

	12	ISI standards on radio recei		
5 th	13	Selection criteria for intermediate frequency	9	REVISION
	14	Concepts of simple and de		PRACTICAL FILE

	15	Block diagram of		
6 th	16	Need for limiting and de-emphasis FM reception	in11	To plot the radiation pattern of a directional and Omni directional antenna
	17	Block diagram of communication receiver	12	REVISION
	18	differences with respect to broadcast re		
7 th	19	Electromagnetic spectrum and its various	13	To plot the radiation pattern of a directional and Omnidirectional antenna
	20	VLF, LF, MF	14	PRACTICAL FILE/ REVISION
	21	HF, VHF, UHF,		
8 th	22	Microwave.	15	To plot the variation of field strength of a radiated wave, with distance from transmitting antenna
	23	Physical concept of radiation of electron energy from	16	PRACTICAL FILE a dipole
	24	polarization of EM Waves.		
9 th	25	Definition and physical concept terms used with antennas like source	17 of the point	To align AM broadcast radio receiver
	26	Gain directivity	18	PRACTICAL FILE / ASSIGNMENT
	27	aperture, effective area, radiation pattern, beam width and radiation resist		
10 th	28	Types of antennas-brief description		PRACTICAL FILE
	29	characteristics and typical applications of half wave dipole, medium antenna, folded dipole, patch, loop antenna, yagi and ferrite ROD	20 ant	To plot the variation of field strength of a radiated wave, with wave

				distance from a transmitting antenna
	30	Brief description of broad-side fire array radiation pattern applications brief idea Rhombic antenna and dish antenna	an	
11 th	31	Basic idea about different modes wave propagation and typical areas application	21 of o	Study and rectify faults in a Broad radio Receiver
	32	Ground wave propagation and characteristics summer field equation for field strength	22	REVISION
	33	Space wave communication – line of sight propagation, standard atmosphere, sky wave propagation ionosphere and its layers.		

12 th	34	virtual height, critical frequency	23	Study and rectify faults in a Broadcast radio Receiver.
	35	skips distance	24	PRACTICAL FILE
	36	maximum usable frequency		
13 th	37	Multiple Hop propagation	25	PRACTICAL FILE
	38	Satellite Communication, Basic	ideas 2	REVISION
	39	Orbit, Apogee, Perigee		
14 th	40	Geo-stationary and its need	27	REVISION
	41	Block diagram of a satellite Communication	28	ASSIGNMENT NO.3
	42	Explanation of a satellite Communication link		
15 th	43	Introduction to VSAT and its		REVISION
	44	Written Test	30	PRACTICAL FILE
	45	Revision		

