Lesson Plan

Name of Faculty : Ms. Sandeep Kumar
Program : Electronics and Communication Engg.
Subject: Communication Systems-I
Semester - 4th
Work Load(Lecture/Practical)per week : 03hrs(lecture),03hrs per group(practical

Week No	Lecture No	THEORY
1 week	1st lecture	**UNIT1:** Introduction to communication system .
	2nd lecture	Classification of transmitters on basis of modulation and service
	3rd lecture	Classification of transmitters on basis of frequency and modulation
2 week	1st lecture	Explaination of block diagram of AM transmitter.
	2nd lecture	Reactance FM transmitter.
	3rd lecture	Armstrong FM transmitter.
3 week	1st lecture	**UNIT2:** Superheterodyne receiver with block diagram
	2nd lecture	Sensitivity,Selectivity,fidelity with their measurement procedure
	3rd lecture	S/N ratio,Image rejection ratio with their measurement procedure
4 week	1st lecture	ISI standards on radio receiver,Selection of IF
	2nd lecture	simple AGC and delayed AGC.
	3rd lecture	FM receiver with block diagram
5 week	1st lecture	limiter and de-emphasis ckt in FM reception
	2nd lecture	communication receiver
	3rd lecture	**1st SESSIONAL**
6 week	1st lecture	difference between communication and broadcast receiver.
	2nd lecture	**UNIT3:** Electromagnetic spectrum with its various ranges
	3rd lecture	concept of radiation from a dipole
7 week	1st lecture	polarization and its various types.
	2nd lecture	point source,gain,directivity,aperture area,radiation pattern.
	3rd lecture	beam width,radiation resistance and loss resistance.
8 week	1st lecture	half wave dipole and mast antenna
	2nd lecture	folded dipole,patch and loop antenna
	3rd lecture	yagi uda antenna and Ferrite rod antenna
9 week	1st lecture	broadside and end fire array
	2nd lecture	rhombic antenna
	3rd lecture	dish antenna
10 week	1st lecture	**UNIT4:** Different types of propagation
	2nd lecture	Groundwave propagation and its summerfield equation

	3rd lecture	**2nd SESSIONAL**
11 week	1st lecture	space wave propagation
	2nd lecture	Line of sight propagation
	3rd lecture	standard atmosphere
12 week	1st lecture	effective earth radius range of spacewave propogation-single and multiple Hopping
	2nd lecture	Duct propogation
	3rd lecture	sky wave propogation
13 week	1st lecture	ionosphere and its different layers.
	2nd lecture	Explanation of terms-virtual height,critical frequency, skip distance
	3rd lecture	Maximum usable frequency and multiple hop propogation
14 week	1st lecture	**UNIT5:** Introduction to satellite communication
	2nd lecture	active and passive satellites,orbit,apogee,perigee
	3rd lecture	VSAT and its features.
15 week	1st lecture	Geostationary satellite and its need
	2nd lecture	Block diagram and explaination of satellite communication link
	3rd lecture	**3rd SESSIONAL**
16 week	1st lecture	**REVISION**
	2nd lecture	**REVISION**
	3rd lecture	**REVISION**

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PRACTICAL
Intoduction to communication systems practicals
Observe waveforms at different stages of a AM transmitter
Observe waveforms at different stages of a AM transmitter
Observe waveforms at different stages of a radio receiver
Observe waveforms at different stages of a radio receiver
to align AM broadcast Radio receiver
Revision and VIVA
Revision and VIVA
identify and study various types of antennas
identify and study various types of antennas

Revision and VIVA
Radiation pattern of directional and omnidirectional antenna
Plot variation of field strength of a radiated wave with distance from transmitting antenna
Study and rectify different faults in a broadcast receiver
Study and rectify different faults in a broadcast receiver
Study and rectify different faults in a broadcast receiver