

Specimen of lesson Plan

Name of the Faculty : Smt. Shalini Garg
 Discipline : Electronics and Communication
 Semester : 6th
 Subject : Microwave and Radar
 Lesson Plan Duration : March-2023-July2023
 Work Load (Lecture/ Practical) per week (In hours): 04 HOURS (Lecture) 3(P)

Week	Theory		Practical day	Topic
	Lecturer	Topic Covered		
1st	1st	Introduction to Microwave and its Applications	1st	Introduction to Microwave
	2nd	Classification on the basis of frequency band		
	3rd	Advantages of Microwaves		
2nd	1st	Assignment on First Unit Introduction to Wave guides	2nd	Introduction to Wave guides
	2nd	Modes of Wave guide		
	3rd	* Propagation constant of Waveguide * Cutoff Wavelength * Guided Wavelength		
3rd	1st	*Relation ship between Guided wavelength and free space wavelength	3rd	Introduction to Microwave Components
	2nd	Non existence of TEM mode		
	3rd	Assignment on Second Unit		
4th	1st	First Sessional	4th	Introduction to Microwave Components
	2nd	Discussion of Microwave components * Tee * Bends * Termination		
	3rd	Discussion of Microwave components * Twists * Detector Mount * Slotted Section * Directional Coupler		
5th	1st	Discussion of Microwave components * Fixed and variable attenuator * Isolator * Circulator	5th	Introduction to Microwave Components
	2nd	* Coaxial to wave guide adapter * Revising of componetnts		
	3rd	* Assignment on 3rd unit * concept of Thermionic Emission		
6th	1st	* Basic Concept of Thermionic emission * Limitations of Vacuum Tubes	6th	Introduction to Microwave Components
	2nd	Discussion the Effects of * Interelectrode Capacitance Effect * Lead Inducatnce Effect * Transit Time Effect on Vacuum tubes		
	3rd	Steps to extend Their high frequency Operations		
7th	1st	Construction and Principles of * Two Cavity Klystron * Multicavity Klystron	7th	To Measure Electronics Tuning Range of a reflex Klystron
	2nd	Construction and Principles of		
	3rd	* Reflex Klystron Construction and Principles of		

		* Multicavity Magnetron		
8th	1st	Construction and Principles of * Travelling Wave Tube	8th	To Measure Klystron frequency by slotted section Method
	2nd	* Gunn Diode		
	3rd	* Impatt Diode		
9th	1st	Assignment of 4th unit Revision of 4th unit	9th	File Check and Viva
	2nd	Characteristics and Applications of Horn Antenna		
	3rd	Dish Antenna		
10th	1st	Microwave Communication link	10th	To measure VSWR of a given Load
	2nd	* Troposphere and its Properties * Tropospheric Duct Formation		
	3rd	Troposcatter Propagation		
11th	1st	Assignment	11th	To Measure directivity and coupling of directional coupler
		2nd Sesimal		
	2nd	Introduction to Radar		
	3rd	Applications of Radar		
12th	1st	Radar range Equation	12th	To plot radiation Pattern
	2nd	Concepts Of Ambiguous range		
	3rd	Doppler Effect		
13th	1st	Principle of Continuous Wave Radar with Block Diagram	13th	File Check and Viva
	2nd	Discussion Of FMCW Radar with Block digram		
	3rd	Discussion of MTI Radar with Block digram		
14th	1st	Radar Displays	14th	To verify the Properties of magic Tee
	2nd	Introduction to VSAT		
	3rd	Multiple access Techniques		
15th	1st	Multiple access Techniques	15th	File Check and Viva
	2nd	VSAT Features		
	3rd	Assignment and 3rd Sessional		