Course Number and Name

BEC7L3 -MICROWAVE ENGINEERING LAB

Credits and Contact Hours

2 and 45

Course Coordinator's Name

Ms G.Kanagavalli

Text Books and References

Laboratory Manual

Course Description

- Know about the behavior of microwave components.
- Understand the radiation pattern of horn antenna.

Prerequisites	Co-requisites
Electromagnetic Fields and waves.	Microwave Engineering

required, elective, or selected elective (as per Table 5-1)

Required

Course Outcomes (COs)

CO1 Demonstrate the characteristics of Microwave sources
CO2 Demonstrate the characteristics of directional Couplers
CO3 To test the characteristics of microwave components
CO4 To analyze the radiation pattern of antenna
CO5 To measure antenna gain
CO6 Practice microwave measurement procedures

Student Outcomes (SOs) from Criterion 3 covered by this Course

COs/SOs	a	b	c	d	e	f	g	h	i	j	k
CO1	H		H	H		M		L			
CO2	M	L	H	H					H	M	
CO3	M			H							L
CO4	M			H	M		M				
CO5		M		H	M				L	M	
CO6						H					H

List of Topics Covered

LIST OF EXPERIMENTS (45 hours)

1. Study of microwave components
2. Characteristics of reflex klystron oscillator
3. Characteristics of gunn diode oscillator
4. Radiation pattern of horn antenna
5. Measurement of Antenna gain
6. Frequency and wavelength measurement
7. Impedance measurement by slotted line method
8. VSWR and Reflection Co-efficient measurement
9. Characteristics of E Plane/ H Plane Tee.
10. Characteristics of Magic Tee.
11. Characteristics of Directional coupler.