

S. No.	Course Code	Course Name	Course Type	Cd	L	T	P	Marks		
								Sessional	Final Exam	Total
7	ECE-513	Microwave Lab	PCC	1	0	0	2	50	-	50

**Course Outcomes:**

At the end of the course the student will be able to:	
CO1	Plot and understand the impact of change in reflector voltage on current and frequency in reflex klystron tube.
CO2	Evaluate the parameters (frequency, wavelength) of rectangular waveguide for a particular mode.
CO3	Calculate reflection coefficient and VSWR of electromagnetic field.
CO4	Verify the impedance measured using klystron tube with Smith Chart.
CO 5	Determine attenuation using isolator and circulator

**List of Experiments of Microwave Lab**

S. No.	Experiments
1.	Verify the characteristics of Reflex Klystron tube and to determine its electronic tuning range.
2.	Determine the frequency and wavelength in Rectangular waveguide.
3.	Determine the standing-wave ratio & reflection coefficient.
4.	Measure unknown impedance with smith chart.
5.	Verify the characteristics of Gunn diode.
6.	Verify V-I Characteristics.
7.	Determine output power & frequency as a function of voltage.
8.	Calculate the coupling factor & directivity using a directional coupler.
9.	To study the following Tees: -E-Plane H-Plane Magic Tee
10.	To study the Isolator & Circulators.
11.	Examine and demonstrate the radiation pattern of Horn antenna.