VIDYA JYOTHI INSTITUTE OF TECHNOLOGY HYDERABAD

IV Year B.Tech. ECE I-Sem

L	T	P	C
0	0	3	2

Microwave Engineering Lab

A17492	Course Outcomes
1	Explain and verify the characteristics of microwave devices
2	Identify and illustrate the scattering parameters of different microwave devices
3	Demonstrate their knowledge in base band signaling schemes through implementation of FSK, PSK and DPSK
4	Understand Multiplexing of two Band limited Signals through TDM.

List of Experiments: (Minimum 6 Experiments have to be conducted)

1. Reflex Klystron Characteristics
2. Gunn Diode Characteristics
3. Directional Coupler Characteristics
4. VSWR Measurement
5. Measurement of Waveguide Parameters
6. Measurement of Impedance of a given Load
7. Measurement of Scattering parameters of a Magic Tee
8. Measurement of Scattering parameters of a Circulator
9. Attenuation Measurement
10. Microwave Frequency Measurement

Equipment:

Klystron/Gunn diode based Microwave bench setup including corresponding power supply.	8
Gunn diode based Microwave bench setup including Gunn power supply.	4
Klystron based Microwave bench setup including Klystron power supply.	4
micro Ammeter(0-500μA)	5
Milli Ammeters(0-200mA)	6
VSWR meter	4
Microwave Components:	37
a) Slotted Section	6
b) Magic T junction	2
c) Circulator	4
d) Directional Couplers for 2 directivities	5
e) Attenuators for 2 different attenuations	8
f) Matched termination	10
g) Horn Antenna	2