

Course: M.Tech. (Electronics & Communication Engineering)	Name of Faculty: Dr. Deepti Das Krishna
Topic: 18-437-0110 MICROWAVE LABORATORY	Semester: FIRST
Lecture Hall: Microwave Lab	Timings: as per CBCS

Set of experiments

1. The Slotted Line (waveguide hardware, measurement of SWR, λ_g , impedance)
2. The Vector Network Analyzer (one- and two-port network analysis, frequency response)
3. The Gunn Diode and Klystron source (the spectrum analyzer, power meter, V/I curve)
4. Impedance Matching and Tuning (stub tuner, $\lambda/4$ transformer, network analyzer)
5. Cavity Resonators (resonant frequency, Q, frequency counter)
6. Directional Couplers, Circulators, Waveguide Tees, Isolators, Attenuators (insertion loss, coupling, directivity)
7. Computer Aided Design and Testing of
 - Planar Transmission Lines
 - Planar Filters
 - Microwave Transistors (Biasing and Layout)
 - Matching Network (Design and Layout)
 - Amplifier Linear Performance
 - Amplifier Nonlinear Performance and Intermodulation
 - Noise Performance of Amplifiers