

**Microwave Engineering Laboratory (0-0-3) Subject code: ECC309**

SL No	Name of the Experiments	No of Week
1	Study I-V Characteristics of Gunn diode	01
2	Study the propagation of EM wave in X-band waveguide & draw the $\omega - \beta$ plot.	01
3	Determine the input VSWR & corresponding impedance of the device at a spot frequency in X-band and also verify by using smith chart	01
4	Determine experimentally the propagation characteristics of Directional coupler operating at X-band using microwave test bench	01
5	Determine experimentally the propagation characteristics of Magic Tee operating at X-band using microwave test bench	01
6	Determine experimentally the broader dimension of rectangular waveguide using microwave test bench at X-band of microwave frequency	01
7	Study experimentally the Frequency Response of various Microstrip filters/couplers in C- Band of microwave frequencies using SICO microstrip trainer kit	01
8	To design and simulate a Microstrip Patch Antenna using CST Microwave studio/HFSS software.	01
9	To design and simulate WR90 Waveguide using CST Microwave studio/HFSS software. Also analyse the wave propagation inside the waveguide alongwith mode profile of EM wave.	01
10	To design and simulate the equivalent circuit model of microwave filters using ADS software	01
11	Mini project based on Microwave.	02
12	End Semester Lab Examination and Viva – Voce	01