

1.	Title of the course	Advanced Microwave Laboratory
2.	Course number	EE558P
3.	Structure of credits	0-0-3-2
4.	Offered to	PG
5.	New course/modification to	Modification To EE5192/21
6.	To be offered by	Department of Electrical Engineering
7.	To take effect from	July 2022
8.	Prerequisite	CoT for UG
9.	<b>Course Objective(s):</b> To introduce the concepts of microwave measurements associated with RF and microwave engineering. To demonstrate the testing of various passive and active microwave components with extensive application in RF/microwave characterization.	
10.	<b>Course Content:</b> Frequency measurements and characterization of transmission lines; Testing E-plane Tee, H-plane Tee, Magic Tee, directional couplers, attenuators, isolators, phase shifters; Impedance measurements; Cavity measurements; Antenna testing; Study of Doppler radar and radar range measurements; Study and calibration of the vector network analyzer.	
11.	<b>Textbook(s):</b> 1. Laverghetta T S, <i>Microwave Measurements and Techniques</i> , 1st Edition, Artech House (1984). 2. Liao S Y, <i>Microwave Devices and Circuits</i> , 3rd Edition, Pearson (2003).	
12.	<b>Reference(s):</b> 1. Sucher M and Fox J, <i>Handbook of Microwave Measurements (vol.1-3)</i> , 3rd Edition, Polytechnic Press of the Polytechnic Institute of Brooklyn (1963).	