Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India
(Autonomous Institute Affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
ETL703	Advanced Communication Engineering Laboratory II	--	--	2	--	--	1	1
		Examination Scheme						
		ISE		ESE				Total
				Practical		Oral		
		40		--		20		60

Pre-requisite Course Codes		ETC 703: Optical Communication and Network ETC 704: Microwave and Radar Engineering
After successful completion of the course, student will be able to		
Course Outcomes	CO1	Apply fundamental principles of optics and light waves to design optical fiber communication systems.
	CO2	Understand the working principles of optical fibers, light sources, couplers, detectors and multiplexers.
	CO3	Design optical fiber communication links using appropriate optical fiber, lights sources, couplers, detectors and mux.
	CO4	To Analyze the microwave passive circuit components and design the tunning and matching networks.
	CO5	Identify the state of art in microwave tubes and semiconductors and their uses in real life.
	CO6	Apply the microwave devices and RADAR for industrial and scientific purposes

Exp. No.	Experiment Details	Ref.	Marks
1	Measurement of Numerical Aperture of a given optical fiber.		5
2	Measurement of propagation loss and bending loss of two different wavelength.		5
3	Study of characteristics of fiber optics LED and photodetector.		5
4	Study the characteristics of LASER.		5
5	Study of Eye Pattern.		5
6	Study and measurement of bit error rate.		5
7	Study the characteristics of GUNN.		5
8	Study the characteristics Klystron .		5
9	To determine the frequency and wavelength in rectangular waveguide working on TE mode.		5
10	To determine SWR and Reflection Co-efficient.		5
11	To determine the function of multihole directional coupler by measuring the coupling factor and directivity.		5
12	To measure the polar and gain of a waveguide horn antenna.		5
***Any 08 Experiment to be performed.**		**Total Marks**	**40**

References: As per recommended by faculty .