



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	
ETL603	Communication Engineering Laboratory IV	--	--	2	--	--	1	1	
		Examination Scheme							Total
		ISE		ESE		Total			
		40		Practical	Oral		10	10	
								60	

Pre-requisite Course Codes	ETC 606:VLSI Design ETC 604: Television Engineering	
After successful completion of the course, student will be able to		
Course Outcomes	CO1	Ability to Realize and design MOSFET based logic circuits with different design styles using circuit simulators and layout editor.
	CO2	Ability to understand the working principles of analog TV, latest display and troubleshooting.
	CO3	To be able to document the experiment.

Exp. No.	Experiment Details	Ref.	Marks
1	To find input and output characteristics of NMOS and PMOS.		5
2	To design and simulate CMOS inverter.		5
3	To design and simulate CMOS logic circuit.		5
4	Design CMOS complex logic circuit.		5
5	Design and simulate T FF, 2:1 MUX.		5
6	Design and simulate PMOS resistive load		5
7	To study block diagram of Monochrome & Colour TV receiver.		5
8	To study RF section through test points & fault simulation step by step.		5
9	To study VIF section through test points & fault simulation step by step.		5
10	To study details of video & chroma section through test points & fault simulation step by step.		5
11	To study details of horizontal and vertical oscillator section & output section through test points & fault simulation step by step.		5
12	To study the detail circuit description of R-G- B Video output Section.		5
13	To study degaussing in colour TV.		5
14	To study LED, LCD and Plazma diplays.		5
*Any 08 Experiments to be performed.			Total Marks
			40

References: As per recommended by faculty.