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
ETL41	Fundamentals of Communication Engineering Lab	--	--	2	--	--	1	1
		Examination Scheme						
		ISE		ESE				Total
				Practical		Oral		
		40		10		10		60

Pre-requisite Course Codes	ET41 (Fundamentals of Communication Engineering)	
After successful completion of the course, student will be able to		
Course Outcomes	CO1	Students will able to implement in hardware various modulation and demodulation techniques
	CO2	Students will able to measure parameters in analog communication
	CO3	Students will able analyze parameters of radio receiver
	CO4	Students will able to generate PAM, PWM &PPM
	CO5	Students will able to develop skill to debug circuits
	CO6	Students will able to analyze and document results

Exp. No.	Experiment Details	Ref.	Marks
1	A)To generate amplitude modulated wave and determine the percentage modulation. B)To Demodulate the modulated wave using envelope detector.		5
2	A)To generate AM-Double Side Band Suppressed Carrier (DSB-SC) signal. B)To generate the SSB modulated wave.		5
3	A) To generate frequency modulated signal and determine the modulation index and bandwidth for various values of amplitude and frequency of modulating signal. B) To demodulate a Frequency Modulated signal using FM detector.		5
4	A) To observe the effects of pre-emphasis on given input signal. B) To observe the effects of De-emphasis on given input signal.		5
5	A)To generate the Pulse Amplitude modulated and demodulated signals B)To generate the pulse width modulated and demodulated signals		5

6	To generate pulse position modulation and demodulation signals and to study the effect of amplitude of the modulating signal on output.		5
7	To design and obtain the characteristics of a mixer circuit. B)To obtain diode detector characteristics		5
8	To study the AGC Characteristics of radio receivers		5
		Total Marks	40

References:

[1] Lab manuals

[2] www.mathworks.com

[3] www.scilab.org

[4] www.ni.com/labview