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
EXL503	Digital Communication Laboratory	--	--	2	--	--	1	1
		Examination Scheme						
		ISE		ESE				Total
				Practical		Oral		
		40		--		20		60

Pre-requisite Course Codes	EXC503 (Digital Communication)
After successful completion of the course, student will be able to	

Course Outcomes	CO1	Observe the characteristics of waveforms using digital modulation techniques
	CO2	Validate line coding techniques experimentally
	CO3	Demonstrate the significance of channel and source coding techniques in digital communication systems
	CO4	Observe the characteristics of spread spectrum techniques using scilab
	CO5	Accept the attributes of plagiarism pertaining to creating the screencast of lab experiment
	CO6	Show audio power point presentation on technological drift in communication

Exp. No.	Experiment Details	Ref.	Marks
1	To design and build a simple Analog-to-Digital (ADC) using OpAmp circuits and resistors.	1	5
2	To observe the waveform of ASK signal.	1,2	5
3	To convert NRZ coded data to NRZ -RZ codes.	1	5
4	To understand the working and implementation of LBC using gates	1,2	5
5	To understand the working and implementation of Hamming codes using gates.	1,2	5
6	To analyze the receiver performance by using the eye diagram.	1,2	5
7	To find out the entropy of binary memory less source using Scilab.	2	5
8	To find out the entropy, average length and variance of Huffman coding using Scilab.	1,2	5
		Total Marks	40

References:

[1] Simon Haykin, "Communication System", John Wiley And Sons ,4th Ed

[2] Taub Schilling and Saha, "Principles Of Communication Systems", Tata Mc-Graw Hill, Third Ed