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
ITT7051	Image Processing	--	--	2	--	--	1	1
		Examination Scheme						
		ISE		ESE			Total	
				Practical		Oral		
		40		-		20		60

Pre-requisite Course Codes	ITC7051 (Image processing)	
After successful completion of the course, student will be able to:		
	CO1	Improve subjective quality of images.
	CO2	Represent an image to transform Image.
	CO3	Demonstrate and extract important features from image data.
	CO4	implement compression to reduce the size of the Image

Exp. No.	Experiment Details	Ref.	Marks

1	Write a program to perform following operation on Image.
	
	  a. Digital Negative.
	
	  b. Contrast Stretching.
	
	  c. Grey Level Slicing.
	
	  d. Thres holding.
		1,2	5

2	Write a program to enhance image using histogram equalization.	1,2	5
3	Write a program to compute Discrete Fourier Transform.	1,2	5
4	Write a program to perform Morphological image processing using Erosion, Dilation, Opening and Closing.	1,2	5
5	Write a program to implement Image Segmentation using Gradient/Prewitt/Robert/Sobel Operators.	1,2	5
6	Write a program to enhance image using Smoothing and Sharpening Filters.	1,2	5
7	Write a program to implement Compression using RLE Compression Algorithm on an Image.		5
8	Write a program to implement Compression using LZW Compression Algorithm.	1,2	5
		Total Marks	40

References:

1. Gonzalez & Woods, "*Digital Image Processing*", 3rd edition, Pearson Education.
2. W. Pratt, "*Digital Image Processing*", 4th edition, 2013, Wiley Publication.