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
		--	--	2	--	--	1	1
		Examination Scheme						
CPEL7023	**Elective-IIImage Processing**	ISE		ESE				Total
				Practical		Oral		
		40		**-**		**20**		**60**

Pre-requisite Course Codes	CPE7023(Image Processing)

At end of successful completion of this course, student will be able to		
Course Outcomes	**CO1**	write a code for Image Enhancement using Zero Memory Point Operations and Histogram Processing Technique
	CO2	Implement Image Segmentation UsingHorizontal and Vertical Line Detection Segmentation Split and Merge Technique
	CO3	Write a Program for Image Compression and De-compression Using Arithmetic Coding and Decoding and Huffman Coding and Decoding.
	CO4	Write a Program for Binary Image Processing Using Hit or Miss Transform and Connected Component Algorithm.

Exp. No.	Experiment Details	Ref.	Marks
1	Write a Program for Image Enhancement using Zero Memory Point Operations.	1,2,3	5
2	Write a Program for Image Enhancement using Histogram Processing Technique	1,2,3	5
3	Implement Image Segmentation usingHorizontal and Vertical Line Detection	1,2,3	5
4	Write a Program for Image Segmentation usingSplit and Merge Technique	1,2,3	5
5	Write a Program for Image Compression and De-compression Using Arithmetic Coding and Decoding	1,2,3	5
6	Write a Program for Image Compression and De-compression Using Huffman Coding and Decoding	1,2,3	5
7	Write a Program for Binary Image Processing Using Hit or Miss Transform.	1,2,3	5
8	Write a Program for Binary Image Processing Using Connected Component Algorithm	1,2,3	5
		Total Marks	**40**

References:

[1]   Rafel C. Gonzalez and Richard E. Woods, 'Digital Image Processing', Pearson Education Asia, Third Edition, 2009,

[2]   S. Jayaraman, E.Esakkirajan and T.Veerkumar, "Digital Image Processing" TataMcGraw Hill Education Private Ltd, 2009,

[3]   Anil K. Jain, "Fundamentals and Digital Image Processing", Prentice Hall of India Private Ltd, Third Edition.

[4]   .S. Sridhar, "Digital Image Processing", Oxford University Press, Second Edition, 2012.

[5]   Robert Haralick and Linda Shapiro, "Computer and Robot Vision", Vol I, II, Addison Wesley, 1993.