

Branch Name:	Information and Communication Technology
Program Code:	ET208
Course Name:	Digital Image Processing Practical(Elective – IV)
Course Code:	2ET2080306P
Pre-requisite Course:	Knowledge of Digital Signal Processing and Engineering Mathematics.

Course Objective:

1. To study the image fundamentals and mathematical transforms necessary for image processing.
2. To study the image enhancement techniques.
3. To study image restoration procedures.
4. To study the image segmentation and representation techniques.

Teaching and Examination Scheme:

Credit	Teaching Scheme Hours per week				Evaluation Scheme (Marks)								
					Theory (Marks)				Practical (Marks)				Total (Marks)
	L	T	P	Total	SEE		CCA		SEE		CCA		
					Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
1	-	-	2	2	-	-	-	-	10	25	10	25	50

LAB/Practical

- 1 Simulation and Display of an Image, Negative of an Image (Binary & Gray Scale).
- 2 Implementation of Relationships between Pixels.
- 3 Implementation of Transformations of an Image.
- 4 Contrast stretching of a low contrast image, Histogram, and Histogram Equalization.
- 5 Display of bit planes of an Image.
- 6 Display of FFT (1-D & 2-D) of an image.
- 7 Computation of Mean, Standard Deviation, Correlation coefficient of the given Image.
- 8 Implementation of Image Smoothing Filters(Mean and Median filtering of an Image).
- 9 Implementation of image sharpening filters and Edge Detection using Gradient Filters.
- 10 Image Compression by DCT, DPCM, HUFFMAN coding.
- 11 Implementation of image restoring techniques.
- 12 Implementation of Image Intensity slicing technique for image enhancement.
- 13 Implementation of Image Segmentation.