IV B.Tech – I Semester

(17EC751) DIGITAL IMAGE AND VIDEO PROCESSING LAB USING LABVIEW/MATLAB

(Skill Course Lab-II)

Int. Marks	Ext. Marks	Total Marks	L	T	P	C
60	40	100	-	-	3	2

Pre-Requisites: Signals & Systems, Digital Signal Processing

List of Experiments:

1. Write program to read and display digital image using MATLAB.
2. Write and execute programs for image arithmetic operations & Logical operations.
3. Write and execute program for geometric transformation of image.
4. Write and execute program for wavelet transform on given image and perform inverse wavelet transform to reconstruct image.
5. Write and execute image processing programs using point processing methods: Image negative and contrast stretching.
6. Write a program for histogram calculation and equalization
7. Write and execute programs to blur and sharpen an image using spatial filters
8. Write and execute programs to obtain blurred image and sharpened image using frequency domain filters
9. To understand various image noise models and to write programs for image restoration
10. Write a program for edge detection using different edge detection masks: Gradient & Laplacian
11. To write and execute program for compression on given image Using DCT
12. To write and execute program for Compression on given image Using DWT
13. To read and play a video file read and play a video file
14. To read and store data from all frames in a video file, display one frame, and then play all frames at the video's frame rate.
15. To read all frames beginning at specified time.

Software Required:

LABVIEW/MATLAB

Course Outcomes:

After successful completion of the course, the students can be able to:

S. No	Course Outcome	BTL
1.		
2.		
3.		
4.		
5.		
6.		

Correlation of COs with POs & PSOs:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO 1														
CO 2														
CO 3														
CO 4														
CO 5														
CO 6														