# Image Processing Lab
# B.Tech (7th Semester)

## Lab Assignment

1. Write a program to read an image of size 64*64 and convert it into gray level value of matrix.
2. Write a program to draw the histogram of the gray level image.
3. Write a program to apply Low level thresholding on 64*64 image from 0 to 50 gray level value and draw the histogram.
4. Write a program to apply thresholding on 64*64 image from 50 to 200 gray level value and draw the histogram.
5. Write a program to apply High level thresholding on 64*64 image from 200 to 255 gray level value and draw the histogram
6. Write a program to determine Discrete Fourier Transform of an input image gray scale image of size 64*64.
7. Write a program to apply following smoothing frequency domain filters to gray scale image of 64*64 size.
   a. Ideal low pass filter.
   b. Gaussian low pass filter.
   c. Butter-worth low pass filter.

8. Write a program to apply following Sharpening frequency domain filters to gray scale image of 64*64 size.
   a. Ideal high pass filter.
   b. Gaussian high pass filter.
   c. Butter-worth high pass filter.

9. Write a program to apply local enhancement on 64*64 image with histogram equalisation and histogram specialization.

10. Write a program to establish a relation between Spatial domain and Frequency domain using Convolution theorem.

11. Write a program to apply Min-Max, Median and Mean filters on input gray scale image of size 64*64.