**List of Experiments**

1. Write a MATLAB program to read RGB image and then

i) convert it into grayscale image

ii) perform image negation on grayscale image obtained in part (i)

2. Write a MATLAB program for power law transformation of an image.

3. Write a MATLAB program to extract RGB components of an image and also combine the RGB components to reconstruct the original image.

4. Write a MATLAB program to extract bit planes from a grayscale image. Display all the bit planes and also the recombined image.

5. Write a MATLAB program to recover the image using approximately 25% DCT coefficients.

6. Write a MATLAB program to plot the histogram of a grayscale image.

7. Write a MATLAB program for contrast enhancement of an image using histogram equalization.

8. Write a MATLAB program for image smoothing using spatial filters.

9. Write a MATLAB program for image sharpening using spatial filters.

10. Write a MATLAB program to detect the edges in the given image using different operators such as Sobel, Prewitt and Roberts Operators.

11. Write a MATLAB program to filter out the image corrupted by salt and pepper noise using median filter. Compare the performance with averaging filter.

12. a. Write a MATLAB program for DFT-Domain low pass filtering.

b. Write a MATLAB program for DFT-Domain high pass filtering.

13. Write a MATLAB program to obtain the blurred image due to uniform linear motion in x-direction and y-direction at a rate given by x0(t)=at/T and y0(t)=bt/T, respectively. Take a=b=0.1 and T=1.

14. Write a MATLAB program to compute the Radon Transform for the square image.