

- (1) Write a program to read and display an image? //use image1.tif
- (2) Find the maximum and minimum pixel value in the image?
- (3) Write a function to convolve two sequences f and g of length N?//No builtin function
- (4) Write a program to find the Fourier Transform of a sequence of length N?//No builtin function
- (5) Implement a function to convolve two sequences f and g of lengths N and M respectively using DFT?
- (6) Read the image image2.jpg and corrupt the image with a random gaussian noise.
- (7) Apply mean, median, min and max filter on the images. Note the observations and identify the filter which best removes the noise from the image. Use both 3x3 and 5x5 masks for all the filters.
- (8) Apply sobel, prewitt and laplacian functions on the image. Sharpen the original image by subtracting the filtered image from the original image.
- (9) Implement Unsharp Masking on the image.  
The procedure for unsharp masking is given below.
  - i. Apply smoothing or blurring on the image.
  - ii. Subtract the blurred image from the original image to get an edge image.
  - iii. Add the edge image to the original to produce a sharpened image.

**\* 1 and 2 uses image1.tif**

**\* 6-9 uses image2.tif**