

# Digital Image Processing Lab

Department of Printing Engineering

Final Year Second Semester

## Lab 1:

### Warm-up in Matlab

*(Assessed number of days – 01)*

## Objectives

Understanding the basic matrix based working principle of image processing in Matlab .

## Topics under this lab

- Image loading and displaying
- Matlab function
- Understanding image as a matrix
- Calculating basic statistics from image matrix

Functions examples

Imread(), imshow(), load(), input(), arithmetic operations, imtool(), etc.

## Assignments

**Report** - Submit a report on the overview described in the lab.

Perform the following programs

- A1. Write a function/code that will load/read an image and take user input for pixel. The output will be the different neighborhood of the user input pixel.
- A2. Write a function/code that will load/read an image and take user input for a pixel coordinate and take a under defined block from the image starting at that point.
- A3. Write a function/code that will load/read an image and calculate the mean, minimum, maximum and standard deviation of the image.

