

CO543 – Image Processing Lab 2

25th October 2018

Make a report with the results to the following questions and write all the code in a single matlab script to show the results at once. Submit the report and the single matlab script in a compressed file and rename it Exx_xxx.zip and submit on or before 1st of November 2018.

a. Image thresholding

Write a function to perform image thresholding using point processing taking the image file and the threshold value from the user.

b. Image arithmetic operations

Read two images and perform addition and subtraction.

$I = I_1 + I_2$; # Addition of two

$I = I_1 - I_2$; # Subtraction of two images

And show the images.

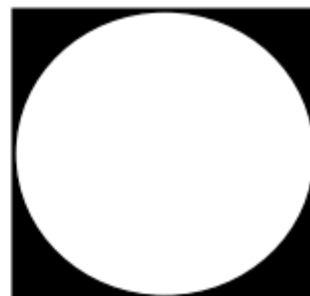
c. Write simple programs in the same script to demonstrate

- a. Log transformation
- b. Power transformation
- c. Gray level slicing
- d. Bit plane slicing

Show the original and resultant images in same figure to compare them easily.

d. Masking

Write a program to read any image, resize it to 256x256. Apply the masks shown in following figures so that only the middle part of the image is visible.



e. Brightness

Write your own Matlab function (or a code snippet) and use it to increase brightness of given image. (Hint: Use Image arithmetic operations)

f. Histogram

Use inbuilt Matlab function to display the histogram of a given image.