

Image and Video processing (IIVP)
Lab Assignment-2
Octave/MATLAB

%PROBLEM%

Time: 1Hr
Date-18/08/2020

Do not use any inbuilt function

1. Read the image I1 and do the following without using any inbuilt function:
 - a. Calculate Mirror image (I2) of the original image (I1). Show both the images simultaneously.
 - b. Concatenate I1 and I2 horizontally and show the output image.
 - c. Concatenate I1 and I2 vertically and show the output image.
2. Read Lena image and convert it into gray scale (without using rgb2gray function). Check whether the image is 4-Connected, 8-Connected or m-Connected.

Given:-

- Set intensity values:- $V = \{1:86\}$,
- Source point Coordinates:- $P = \text{Lena}(37, 6)$
- Destination point Coordinates:- $Q = \text{Lena}(33, 10)$.

Do the following **if exists**:

- Plot the path for 4-connectivity. Is the path unique?
- Plot the path for 8-connectivity. Is the path unique if not then find the shortest path
- Plot the path for m-connectivity. Is the path unique? If not then find the shortest path

3. Find out the total region formed with 4, 8 or m connectivity in Lena image.

Given:-

- Set intensity values $V = \{1:86\}$