

## **2<sup>nd</sup> Assignment: Image Enhancement in Spatial Domain**

### **Task Description:**

This is a group task. A simple useful application in image processing is to make a part of an image to be blurred or darken like the eyes and the face to hide the identity of a person or to cover some parts not intended to be seen.

Your second assignment requires you to develop a simple application that can blur or darken part of image chosen by the user.

Note: There can be different ways in achieving the task (ie. approaches and methods). You need to document your approach. If your solution approaches similar to other group, your report should be different. I will check for plagiarism and will ask you to explain during presentation.

### **The task**

- Your application should allow user to choose / load any images in the computer.
- User can choose any part of the image to blur or darken. (tips: Use roipoly function as in tutorial class).
- Make a good GUI for the application.
- You need to make report and show the following
  - o Your codes and its documentation
  - o Flow or process chart showing the process in achieving the task and its explanation.
  - o Example of the image and output.

### **Submission**

- You need to submit a report (.pdf) with the script in matlab in e-learning and video (zip the submission materials)
- Make a video presentation consist of demo and explanation of your method in implementing the system.
- Assignment is due 21<sup>th</sup> of December 2020 (section 1) 24<sup>th</sup> December 2020 (section 02)

### **Grading Scheme**

- Complete and on time submission. [ 2 M]
- Complete the task given
  - o Able to load images [ 1 M]
  - o Able to choose parts in an image multiple time [3 M]
  - o Able to blur and darken part user choice [ 3 M]
  - o Able to save output image [ 1 M]
- Process flow and documentation in solving the task is clear and correct. [ 3 M]
- GUI [2 M]