**CS 4391 Spring 2023**

**Assignment 2 – Image Segmentation**

**Due Date: April 30th, 2023 11:59 PM**

In this assignment, you will be implementing some basic image segmentation techniques and record the result image.

You are allowed to use calls to OpenCV pre-defined functions in this assignment.

Please implement each of the following image segmentation methods to segment the image and record/compare the results:

* 1. Generate the grey level histogram of the image and then threshold the image into:
     1. Black-and-white (binary) image; (one threshold value)
     2. Grayscale image with four segmented regions; (three threshold values)
  2. You can handpick 3-6 pixels from the image (or random select), then use K-means clustering method to segment the image into 3-6 regions;
  3. Segment the image use edge and contour detection result;

**Submission Instructions:**

Please submit your source code and result images to eLearning ONLY. (Do NOT submit your project or other files)