ENGR 391: Computer Vision
Homework Assignment # 1
Spring 2024

Problem

Feel free to use OpenCV or Matlab.

1. Write code to read a color image of your choice.

2. Display the image.

3. Transform the color image to gray level.

4. Display the histogram of the image.

5. Resize the image to 200 by 200 pixels.

6. Perform histogram equalization and show the new image.

7. Transform the image to a binary image. Use two different threshold values and compare.

8. How many bytes are needed to represent a color image of 200 by 200 pixels with 16 levels of gray?

9. Perform addition and subtraction of two images.

10. Discuss the advantages and applications of binary images.