CAP 4401 - IMAGE PROCESSING

Assignment 4

The purpose of this homework is to experiment with OpenCV library. See TA site for information on OpenCV

Your program should be able to do the following:

- Histogram modification [4 points]
    - Implement histogram equalization function utilizing OpenCV functionality
    - Compare performance of OpenCV modules with your previous implementation (stretching)
    - Make sure to operate with ROI (3 ROI max)
- Edge Detection [6 points]
    - Implement Sobel edge detector utilizing OpenCV functionality
    - Compare performance of OpenCV modules with your previous implementation (Prewitt)
    - Use Canny module in OpenCV and compare results to Sobel/Prewitt operator
    - Make sure to operate with ROI (3 ROI max)

Write a report for this assignment

- Include input and output images.
- Discuss performance of histogram modification on images and compare
- Discuss performance of grey level edge detectors on images and compare
- Make sure that you have extensive report with images for this assignment (not just few comments).

How to submit

- Submit paper report in class on the due date
- See TA help desk for instruction on program submission and testing.