LAB 02: HISTOGRAM EQUALIZATION

CS353 IMAGE PROCESSING

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INTRO

During this first week, you are expected to dive into the basic principles of manual image enhancement.

STEP 1:

Find a good-resolution image of Lena online (e.g., *.jpg) and import it locally (use any programming language)

STEP 2:

If not monochrome, be sure to convert it into grayscale (aka assign a single intensity value to each pixel) first.

STEP 3:

Find a way to extract the histogram (using PDF and CDF) of your imported image.

STEP 4:

Perform HE and display the new (enhanced) version of your image together with the new (equalized) histogram.

STEP 5:

Place the code chunks together with each step produced output (images and histograms) into a document as below:

Code goes here…

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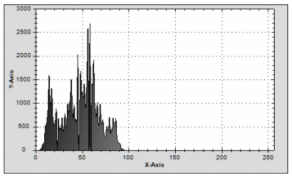
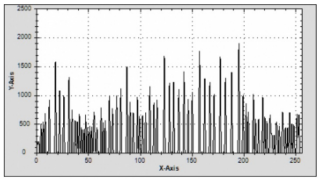
Before:



After:



STEP 6:

Save your work, and submit your document under the corresponding slot on Moodle.

THE END