Digital Image Processing Lab

Experiment No 2

Write C/C++ modular functions to perform histogram equalization and histogram matching. All functions must support 24-bit RGB and 8-bit grayscale image formats. Use of OpenCV to read and write images are allowed.

1. **Histogram Equalization:**
   a) *Input*: Input image
   b) *Output*: Perform histogram equalization on the given set of images
      a. Display the histograms of the input image and histogram equalized image.
      b. Display the input image and histogram equalized image. Write the histogram equalized image into the disk.

2. **Histogram Matching:**
   a) *Input*: Input image, Target image
   b) *Output*: Perform histogram matching of the input image with respect to target image
      a. Display the histograms of the input image, target image and histogram matched image.
      b. Display the input image, target Image and histogram matched image. Write the histogram matched image into the disk.

Write two separate codes for histogram equalization and histogram matching

Submit zip file and name it "Exp-02-<Roll No>. The file should contain C/C++ Code, Read Me File, Report in PDF Format, Input Images, Output Images.