Prog. Task-1

Histogram Analysis   Contrast stretching

Groups of 2-3 students are required to code the following two experiments and deliver them in lab time [29 March]

1. **Experiment-1 [Python-Code]:**

   -choose an image with low contrast and work with it as gray image

   -Plot its histogram

   - Plot its cumulative histogram

   -Perform histogram equalization

   > -Plot the modified image

   > -Plot the modified image histogram

   > -Plot the modified image cumulative histogram.

2. **Experiment-2[Python-Code]:**

   - choose an image with low contrast whose pixels not occupy the full dynamic range and work with it as gray image.

   - deduce the original image range from a to b [min and max of image pixels]

   -Plot its histogram

   - Apply contrast stretching on image pixels to utilize the full dynamic range [0,255]

   - Display the new image
   - Plot the modified image histogram