Digital Image Processing EECS 740

Assignment 1

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Abstract:

Problem 1: Perform a power-law transformation on the images with r=0.3 and r=3. Show the results and analyse the results.

Problem 2: Compute the histogram of the images, and then apply the histogram equalization on them. Show the histograms before and after equalization and the equalized images.

Problem 3: Add Gaussian noise to the images and use average filter and Gaussian filter to remove the noise. Show and analyse your results under two different noise levels and filter sizes.

Problem 4: Enhance the original images using the Laplacian enhancement technique.

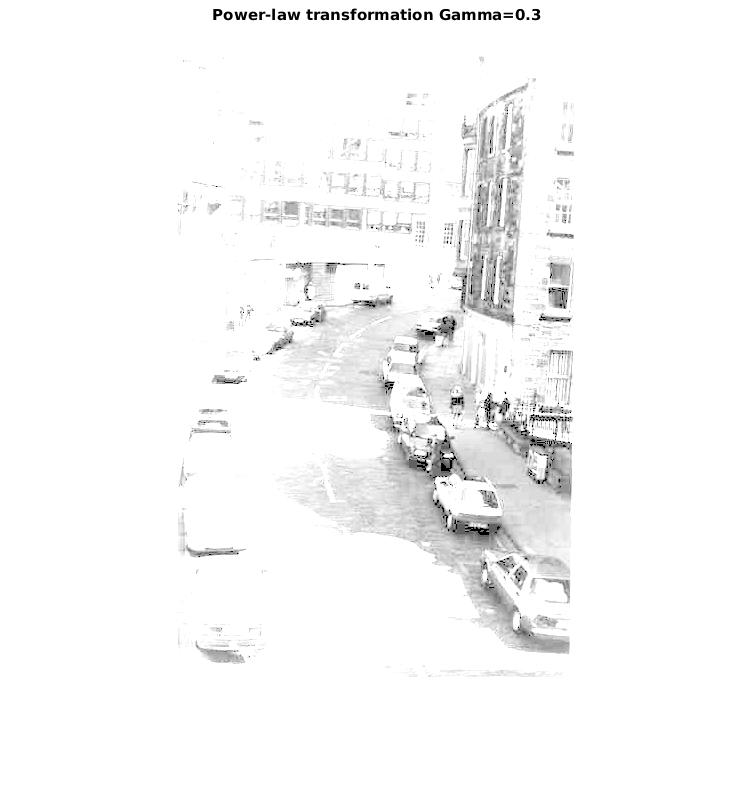
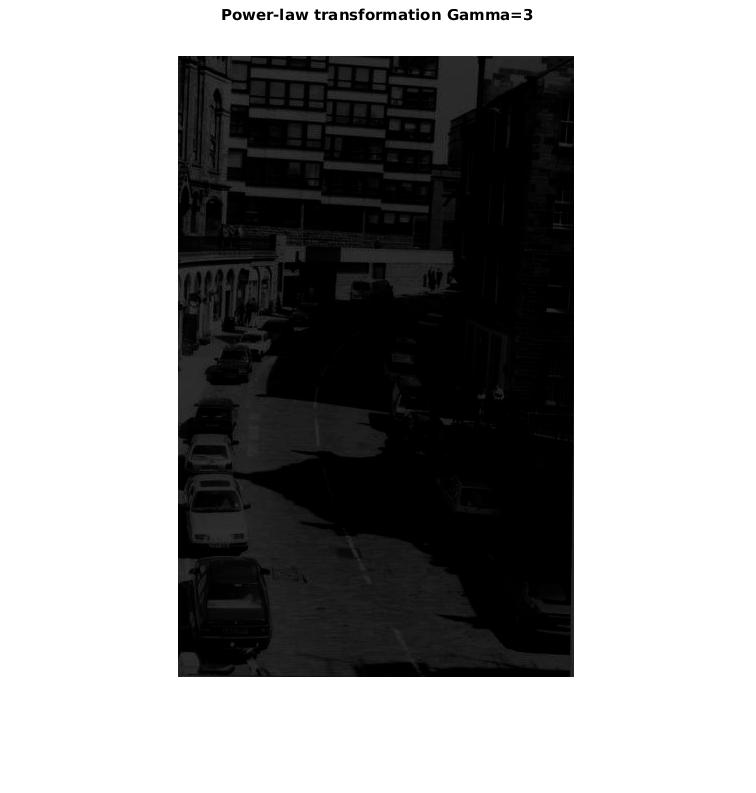
Results:

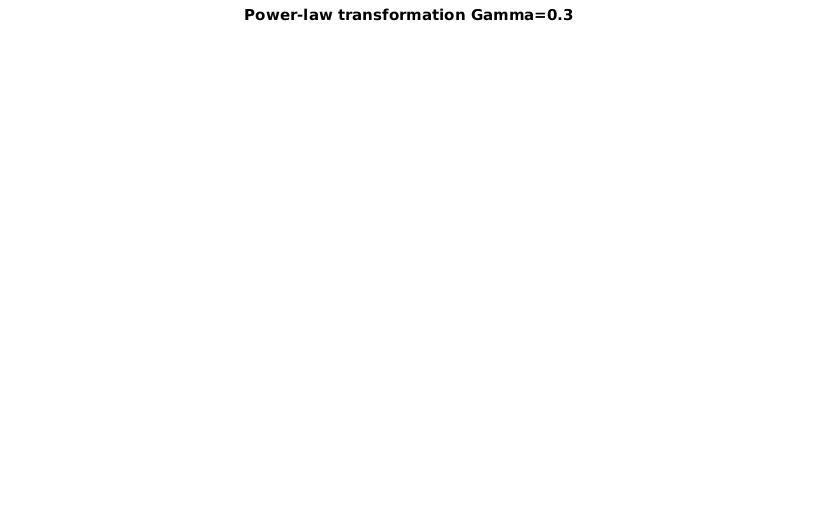
Over exposed image:

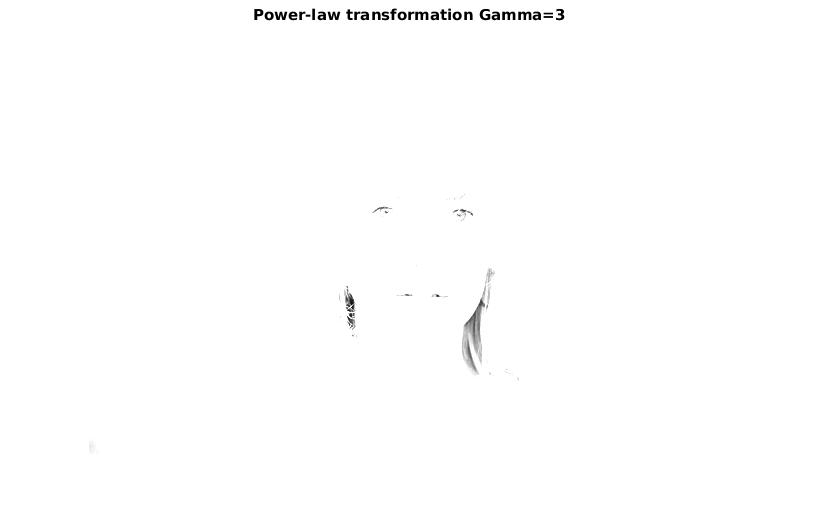


Under exposed image:

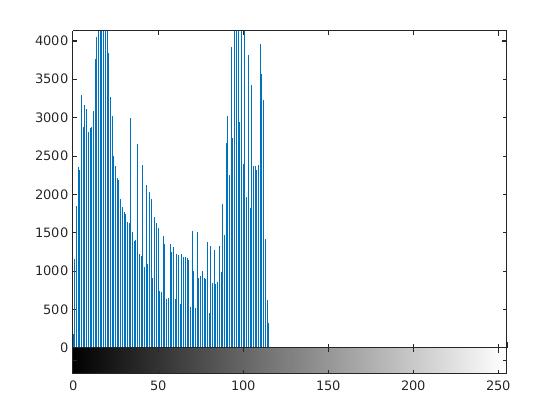








Under exposed image histogram:



Underexposed image with Histogram equalization:

