EE-608:DIGITAL IMAGE PROCESSING

Lab Assignment 6

(Warning : Don't use chatgpt)

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AIM:

1) Write a function to apply first order gradient and second order gradient filters on the given image.

2) Write a function to do histogram equalization on a given image and plot before and after histograms.

3) Take two different images of the same size and Apply histogram matching between them. And plot the image after its histogram transformation to its desired match.

Doubts: You can approach us. Use leena image or any other image of (512,512).

Libraries: Opencv to read or write image

Matplotlib to display image

Numpy wherever necessary

Basic python functions

Deliverables:

Just give a concise report of what you understand in your own words, not too heavy theory taken from the web.

1) Write a python or matlab code to implement above given tasks.
2) Analyze the tasks clearly and the mathematics behind the task.
3) Plot the results and make a report of results and observations.