

Homework #4

- 1) Calculate histogram of the 'grayImage.jpg' in the file. Plot the histogram.
- 2) Write a code to threshold the given image.
- 3) Using given ground truth segmentation ('ground_truth.png'), plot an ROC curve for your thresholding algorithm. Which threshold is better according to ROC?

Besides image reading and writing, do not use any image processing function from MATLAB. All the operations have to be coded from scratch, i.e. calculating histogram, thresholding and ROC, etc.

You should comment your code, so that it can be easily understood.

Use Matlab. Your code has to be in script file with m extension.

You must explain what you implement in the report. You must show your output images in the related parts of the report.

Cheating and plagiarism on assignments will be punished according to ITU regulation.