EE 417

Comparison of Edge Detectors

Due: 28/10/2018, 23:55

In this computational assignment, you will detect the edges in an image using the following methods and compare their relative performances in Matlab environment.

1st Derivative Edge Detectors:

- Prewitt
- Roberts
- Canny

2nd Derivative Edge Detector:

- Laplacian of Gaussian (LoG)

Explore the Matlab's **edge** function implemented in Image Processing Toolbox.

Do the followings:

- Create your own images or download them from the internet.
- Write a Matlab script/function where you can read the images into the Matlab's workspace.
- Call the **edge** function with various edge detectors such as 'prewitt', 'roberts', 'canny' and 'log'. E.g. edge(I, 'canny')
- Plot the original image and the edge detection result in different figures and comment on them.
- Compare performances of these edge detectors on various images.
- Provide a discussion about your results.

Note: Submit your reports to your TA by email.