CSCI-B456 – Image Processing
Spring 2018

SCHOOL OF INFORMATICS, COMPUTING, AND ENGINEERING
INDIANA UNIVERSITY

Project 2

Due by 3/23/2018, Friday Midnight through Canvas

Instructions:

Please complete the following projects. Submit on Canvas all functions and test programs (m files) along with a brief report showing input and output images. *Provide adequate comments along with a brief pseudocode to explain your logic.* Also include a readme file if any special instructions are needed to test them.

Part 1:

Implement Canny Edge Detector for gray scale images. This would include:

a) Convolution with partial derivatives of Gaussian in x and y.
   You may want to write separate functions to generate derivatives of Gaussian Kernels for different values of δ.
b) Finding the gradient magnitude image.
c) Non-Maximum Suppression. (The input of this module will be the output image of part (b))
d) Hysteresis Thresholding (The input of this module will be the output image of part (c) and the output will be a binary image).

Experiment with different values of δ and thresholds for input images and display your results.