EEE-6512 Image Processing and Computer Vision Fall 2017 Extra Credit #1 October 18, 2017

Due: November 2, 2017, 11:59 PM

This assignment should be completed individually by the student. Late submissions will not be accepted. Proper citation should be provided for any references used.

Part I Textbook Questions [25 points]

Answer the following questions from the textbook:

4.19, 4.26, 5.44, 5.45, 6.10 p230 p290

Part II MATLAB Programming [25 points]

Question 5.46 from the textbook. p290

You are not allowed to use built-in functions to construct the kernels or apply them to the image. Your program should accept a valid sigma value from the user and construct the kernels. You are to display the results of each kernel'sapplication to the grayscale image.

To receive full credit for this assignment, you should submit two files. 1.) A document containing answers to the textbook questions and the results obtained from Part II. An M-file containing commented MATLAB code for the solution to question 5.46. Students should ensure that their M-files execute without errors to avoid receiving point deductions.