BRAC UNIVERSITY

Department of Computer Science and Engineering

Assignment

CSE 439: Machine Vision

[Code-based]

`[Python will be the most helpful for this assignment]`

1. Find the edges of the test image using:

a. The Sobel X, Y, 45 and 135.

b. Laplacian Operator. [Look it up. Keyword: edge detection]

>> Which edge detector was <u>subjectively</u> better?

2. Make a (5×5) and a (9×9) kernel having all '1' values. These are your structuring elements. Now on the test image with each structuring element, perform:

a. Erosion and Dilation

b. Opening and Closing [Look it up. Keyword: morphological image processing]

>> Explain the outputs of <u>each</u> operation above.

Submission:

(i) Deadline: ***21 April, 2024***

(ii) Submission form will be provided

(iii) Add all your outputs and explanations in a Word file and convert to pdf to submit

(iv) Be sure to add your name and ID inside the pdf on top of the page