Digital Image processing (spring 2020)

Due to:25/3/1399

Homework #4: Morphological Operations

Part A: Morphological and Other Set Operations

- Write a function to performing binary dilation and erosion with an arbitrary structuring element of size 3 x 3.

- Use "img1.tif" and apply (a) with 2 arbitrary structuring elements.

Part B: Boundary Extraction

- Use "img2 .tif" and extract the boundaries of the characters.

Part C: Connected Components

- Use your results from Part A to write a function to extracting (and counting) the connected components from a binary image.
- Use "img3.tif" and use your program in (a) to count the number of connected components.

Prepare a report in PDF format including the figures, answer to the questions and discussions mentioned in the homework.
Submit all things in a zipped folder named as "LastName_StudentID.rar".