PROJECT II

EE409 DIGITAL IMAGE PROCESSING

PROBLEM 1

This problem deals with connected components and image segmentation. You are supposed to write C code for thresholding and region growing algorithm, along with image segmentation. For this problem, refer to the accompanying document '**CCSeg.pdf**' for detailed instructions.

1. Implement the `ConnectedNeighbors` and `ConnectedSet` functions described in the CCSeg.pdf.

2. Apply the `ConnectedSet` function to extract pixels connected to (67,45) and T = 2, as explained on page 4 of CCSeg.pdf. Please note that you only have to show results for T = 2.

3. Generate a segmentation of the image as explained in Section 2 of CCSeg.pdf. You have to show the segmentation generated by T = 2, along with number of regions.

Report must include:

1. **Image showing connected set for T = 2**

2. **Randomly colored segmentation for T = 2**

3. **Number of regions in this segmentation and your C code**

PLEASE NOTE THAT YOU HAVE TO FOLLOW INSTRUCTIONS GIVEN IN CCSEG.PDF EXCEPT YOU ONLY HAVE TO SHOW RESULTS FOR T=2 FOR BOTH CONNECTED COMPONENTS AND SEGMENTATION.