Assignment - II

Computer Vision

3 Questions, 10 Marks

Answer all the questions. There are no restrictions on the usage of library functions or online codes.

Deadline: 21/04/2021 (Strict). 1 mark/day will be deducted for late submissions.

Q1) Write a program to implement a region segmentation algorithm using the fuzzy c-means algorithm on normalized 'RGBxy' data of an image. Merge stray (isolated) pixels (or very-small-regions) to their surrounding regions. [3 marks]

Q2) Write a program to obtain the spatial and contrast cues using SLIC superpixels of an image instead of pixels. [3 marks]

Q3) Implement the separation measure discussed in Sec III.B.1 of the following paper to obtain quality scores for the two cues obtained in Q2. Use these quality scores as weights while performing the weighted sum of the two cues for getting the final saliency cue. [4 marks]

Quality-Guided Fusion-Based Co-Saliency Estimation for Image Co-Segmentation and Colocalization, TMM 2018.