Computer Vision SBE 404

Project 4: Segmentation

Due time: Thursday 26 April, 11:59 pm

For given set of images (grayscale and color)

A) Tasks to implement

1) For supplied grayscale images, threshold it using optimal thresholding, Otsu, and spectral thresholding (more than 2 modes). Do global and local thresholding.
2) For supplied images, do unsupervised segmentation using k-means, segmentation using region growing, agglomerative and mean shift method.

Hints

- Define feature vector appropriately for segmentation (you may use pixel intensity directly or window around each pixel). SIFT may be used as feature vector.
- For color images, map the RGB color space to L*u*v color space.

B) Report all of the above to TA's (One Zip file including report, codes, results, etc).