EE 146 COMPUTER VISION

Department of Electrical & Computer Engineering
University of California at Riverside
Tues., Thurs. 3:30 - 4:50pm, Online Class, Winter Quarter 2022
Labs Wed 8:00 --10:50am, Online; Thurs. 11:00 -- 1:50pm, Online

EE 146 Lab 2, January 12 & 13, 2022

Goal: Thresholding gray scale images using Otsu's Algorithm for image segmentation or binarization. Book Chapter (11)

Problem 1: Otsu Algorithm

1) Understand Otsu automatic thresholding algorithm and test it on four different gray scale images, two non-textured images and two textured images.
2) Show your results similar to those shown in Figure 11.1 (top row) and Figure 11.4, first and second rows. Your top row will show the original images (two non-textured images and two textured images). Your second row will show the results of binary images after thresholding. Your third row will show the following results for each of the original images: histogram of original image, plots of foreground variance, background variance and the variance between the foreground and background.
3) What did you learn on the suitability of the algorithm for textured and non-textured images?