

Syracuse University  
Department of Electrical Engineering and Computer Science

CSE 400/691 Image and Video Processing  
Spring 2018

Assignment II

**EDGE DETECTION**

- 1) Implement the following three steps of the Canny edge detection algorithm as we discussed in the class:
  - i) [25%] CANNY\_ENHANCER
  - ii) [25%] NONMAX\_SUPPRESSION
  - iii) [25%] HYSTERESIS\_THRESH
- 2) [15%] Test your algorithm on images “Flowers.jpg”, “Syracuse\_01.jpg” and “Syracuse\_02.jpg”. Try different values of  $\sigma$  (the standard deviation of the Gaussian),  $\tau_l$  (lower threshold) and  $\tau_h$  (higher threshold). Compare and evaluate your results.
- 3) [10%] Test your algorithm on a favorite image of yours.