Syracuse University
Department of Electrical Engineering and Computer Science

CSE 400/691 Image and Video Processing
Spring 2018

Assignment I

NOISE FILTERING

Load images "NoisyImage1.jpg" and "NoisyImage2.jpg", and to each of these images:

a) [25%] Apply average smoothing by a mean filter by using two different kernel sizes. Then, compare and evaluate your results. (**Hint:** `help conv2`)

b) [40%] Apply Gaussian smoothing by using two different σ values. Then, compare and evaluate your results. Comment on your choice of σ values.

(**Hints:** To build your kernels, use the algorithm INT_GAUSS_KER in the book. Then, implement the algorithm SEPAR_FILTER. Also, `help conv2`)

c) [25%] Apply median filtering by using two different kernel sizes. Then, evaluate your results.

[10%] Which filter is better for each image and why?