

CPEG 585 – Assignment #2

Due date: Friday, February 10, 2018

a) Derive the kernels for the following convolution filters:

1. Identity
2. Average (Low pass)
3. High Pass
4. Sharpening
5. Gaussian
6. First derivative (Gradient)
7. Second Derivative (Laplacian)

Write the code for testing the above kernels (starting code for convolution filters is provided on the web site). Try to enhance the code so that a user can enter any kernel and see the effect of it on the image. Show results of above convolution filters on some images.