Department of Computer Science and Engineering

National institute of Technology calicut

CS4093D Image Processing Lab

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1. Add gaussian noise to the grayscale image (*cameraman.tif*) with the following parameters:

   (a) Mean 0, variance 0.01

   (b) Mean 0, variance 0.02

   (c) Mean 0, variance 0.05

   (d) Mean 0, variance 0.1

   Perform Image Averaging.

2. Read cameraman image, create a dark image with it (*It will appear as a very dark version of the cameraman image).*

   (a) Compute the histogram of the original image.

   (b) Compute the histogram of the dark image.

   (c) Apply histogram equalization on the dark image.

   Compare the results.

3. Create a menu-driven program to implement 3*3 median, min, max and mean filter (*n is odd*). Apply above filters on the given image. Give a plausible explanation for the observations.