Machine Vision Assignments #4

Problem #1

In this problem you will use your image processing knowledge to repair a corrupted image. Remove the lines from the corrupted "f.png" image.

Problem #2

Apply histogram equalization to tune the low exposure image named as "badexposure.jpg".

Show the histograms before and after applying the histogram equalization algorithm.

Problem #3

1-Remove the noise from the image Q4-1.tif.

2-Seperate the two types of blobs in the Q4-4.tif.

Problem #4

The image (Q4-3.tif) includes objects of rice grains of different orientations over a dark background. In this problem, you are asked to develop a program to

 (a) Detect (extract from background) the rice grain objects (By example using theresholding)

(b) Compute the number and average size of the rice grains.

(Use the morphological operations to count the number of rice grains such as Opening, Closing connected components and …)