Global Histogram Equalization

Histogram graphically shows the distribution of pixels among grey scale values. Dynamic range of an image can be improved by equalization method. Histogram equalization is an efficient and useful technique. The intensities will be equally distributed in output image after the process of histogram equalization. There are some reasons that led to the need of enhancement:

* Bad quality of the used imaging device,
* Lack of expertise of the operator
* The adverse external conditions or environment condition at the time of capture.

**Discussion on PROS and CONS**

It stretches the resultant histogram of original image to cover a wider gray scale values. There by enhancing the low contrast of image. It uses all the intensities of original image for

evaluating transformation function. Resulting in enhancement of image globally. It increases the entropy of image up to maximized range.

1) Drawback :

It work equally good for both background and foreground section of an image. hence sometimes increase noise and dusts present in image.

GHE pushes the intensities towards right or left i.e. bright or dark. So it creates level saturation effects on some visibly important areas. GHE works globally without considering local information which sometimes have loud impacts.

CUMULATIVE HISTOGRAM EQUALIZATION

PROS: Has good performance in histogram equalization

Advantage: A key advantage of the method is that it is a fairly straight forward technique and an invertible operator. So in theory, if the histogram equalization

CONS: Requires a few more operations because it is necessary to

Disadvantage: A disadvantage of the method is that it is indiscriminate. It may increase the contrast of background noise, while decreasing the usable signal