ABSTRACT

Image enhancement is a technique used to get the better quality of an image in terms of its clarity, brightness and to give the human eye comfortable to look at. These techniques are used to emphasize and sharpen image features to obtain a visually more pleasant, more detailed or less noisy output image. There are different types of techniques to give good quality of an image. Global image contrast enhancement is one of the most commonly used technique to enhance the quality of an image, but it has some disadvantages with the fact that it does not consider the local details of an image. Local details of an image are very important while analyzing an image, which is that of scientific study of an image like the image taken from planetary bodies, satellite images an medical images. Local details of an image are very important for diagnoising a particular ailment. When either local contrast enhancement or global contrast enhancement is used alone, there is loss of brightness of the image. In order to address and reduce this discrepancy of individual enhancement methods, a new method is presented in this paper that uses both local and global enhancement methods on the same image. First, the image is locally enhanced and the output is again processed by global enhancement method for the better visual perceptions and increases the brightness to a level which gives pleasant sensation to the human eye. This method works fine in the most of the dark images. This enhancement method is simulated in MATLAB and the results are verified on the parameters of image quality.

LIST OF ABBREVIATIONS

DIP	DIGITAL IMAGE PROCESSING
RGB IMAGE	RED GREEN BLUE IMAGE
GUI	GRAPHICAL USER INTERFACE
CLAHE	CONTRAST LIMITED ADAPTIVE HISTOGRAM EQUALIZATION
AHE	ADAPTIVE HISTOGRAM EQUALIZATION
AHC	ADAPTIVE HISTOGRAM CHIP
HTML	HYPER TEXT MARK UP LANGUAGE
MATLAB	MATRIX LABORATORY

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