Abstract

Image Enhancement is one of the major research areas in digital image processing. The main intention of image enhancement is to process the image so that the result is more compatible than the original image for a specific application. Many images like satellite images, medical images, aerial images and even our photographs suffer from poor contrast and noises due to various reasons such as lighting, weather or equipment that has been used to capture the image. It is necessary to enhance the contrast and remove the noises to increase the image quality by using image parameters. Image enhancement techniques differ from one field to another according to its objective. The noises such as Gaussian noise, Salt and Pepper noise and Speckle noise affect most of the images. This paper discusses the advantages and disadvantages of various image enhancement techniques and the metrics which have been used for quantitative measures. Finally it decides which techniques are most appropriate for the real-time image enhancement.

References

Survey on Color Image Enhancement Techniques using Spatial Filtering

Images” 0978-1-4673-4836-2, IEEE.

**Index Terms**

Computer Science  
Image Processing

**Keywords**

Gaussian noise  
salt & pepper noise  
speckle noise  
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multispectral images

fuzzy logic.