Abstract

Image processing is basically carried out to enhance or restore a noisy image. The former mechanism is known as image enhancement and the later one is known as image restoration. Image gets corrupted with noise during acquisition phase or during transmission phase. Denoising can be done by numerous methods like neighbourhood operations, arithmetic operations, Transforms etc. In this paper we have combined neighbourhood processing techniques with Transform specifically wavelet Transform. The results obtained after simulation show that the combined algorithm performs better than both individually. Simulated results are for Gaussian, Speckle and Salt & Pepper noise, for denoising median filter of size 3X3, 5X5 and discrete wavelet Transform are used here. Then results obtained were evaluated on the basis of Peak signal to noise ratio which has improved remarkably.

References

Image Denoising using Combination of Median Filtering and Wavelet Transform


6. V. Gupta, R. Mahle ; R. S. Shriwas," Image denoising using wavelet transform method" Tenth International Conference on Wireless and Optical Communications Networks (WOCN), 2013


Index Terms

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Keywords

Artifacts, Decomposition, Discrete wavelet transform, Median filter