Adaptive Improved PCA with Wavelet Transform for Image Denoising

Abstract

Removing Noise from the original image is yet a gainsaying problem for research workers. There have been various algorithms proposed for noise removal and each algorithm has its advantages, assumptions and drawbacks. In this paper image denoising problem can be solved by using combine approach of Principal component analysis and wavelet transform. Wavelet transform applied on image for contrast enhancement where as Principal component analysis is used for noise removal. The database outcomes of proposed algorithm show that proposed algorithm, improves the Peak signal noise ratio by denoising the image effectively and keeping the data of original image better.

References

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Index Terms

Computer Science

Image Processing

Keywords

Discrete wavelet transform (DWT)  Peak signal to noise ratio (PSNR)  Principal component analysis (PCA)