Abstract

This paper proposes an improved image denoising algorithm based on M-Band Ridgelet Transform for speckle noise present in the medical images. NeighCoeff Thresholding algorithm is used to calculate the threshold values. The result of the improved method is tested on ultrasound and Magnetic Resonance Imaging (MRI) images affected with speckle noise. Peak Signal to Noise Ratio (PSNR), Mean Square Error (MSE) and Edge Preservation Index (EPI) has been used as parameters for evaluation of results. The performance of new method is compared with existing methods such as Wavelets, Ridgelet, and Curvelet.

References

M-Band Ridgelet Transform to Remove Speckle Noise from Medical Images

No. 2, pp. 157–165.

Index Terms

Computer Science

Signal Processing
Keywords
Speckle noise  Wavelet  Curvelet  Ridgelet.