Comparative Analysis of B-Mode Breast Ultrasound Image Enhancement Techniques

Abstract

Acquisition of ultrasound images is cheap and noninvasive as it does not require ionizing radiations as compared to other medical imaging techniques but the problem with these images lies in its inherent characteristics like speckle noise and low contrast. In this paper the performance of various image enhancement techniques are compared by applying them on B-Mode breast ultrasound images (BUS) and by using the essential quantitative metrics like signal to noise ratio (SNR), Edge Preserving Index (EPI) and Structured Similarity Index (SSIM).

References


Index Terms

Computer Science  Image Processing
Keywords

Speckle Noise, B-Mode breast ultrasound (BUS) image, SNR, EPI, and SSIM.