Abstract

Digital image acquisition and processing technique plays an important role in medical diagnosis. Images of living objects are taken using various modalities such as X-ray, Ultrasound, Computed Tomography (CT), Magnetic Resonance Imaging (MRI) etc. During the acquisition process, various distortions in the images are founded, which will negatively affect the diagnosis process on captured images. There by advanced digital image processing techniques for improving the quality of acquired image by removing noise components present in it becomes important. Among various modalities of medical image acquisition, Ultrasound imaging which is non-invasive in nature and lower acquisition cost is the most used application of high-frequency
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sound waves to produce diagnostic images. Ultrasound images are degraded by an intrinsic artifact called "speckle", which is the result of constructive and destructive coherent summation of ultrasound echoes. This paper discusses different types of filter techniques and multi-scale approach to suppress the speckle noise in ultrasound image.

References

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