

Image Denoising Using Spatial Adaptive Mask Filter for Medical Images

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Abstract : In medical image processing the quality of the image is degraded in the presence of noise. Especially in ultra sound imaging and Magnetic resonance imaging the data was corrupted by signal dependent noise known as salt and pepper noise. Removal of noise from the medical images is a critical issue for researchers. In this paper, a new type of technique Adaptive Spatial Mask Filter (ASMF) has been proposed. The proposed filter is used to increase the quality of MRI and ultra sound images. Experimental results show that the proposed filter outperforms the implementation of mean, median, adaptive median filters in terms of MSE and PSNR.

Keywords : salt and pepper noise, ASMF, PSNR, MSE

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