

Review on Linear and Non - Linear Filter

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Abstract: Image denoising is the operation of the image data to produce a visually high quality image. The existing or current denoising algorithms or approaches are filtering approach, multifractal approach and wavelet based approach. Different noise models include noise as additive and multiplicative type. They include Gaussian noise, salt and pepper noise (impulsive noise), Brownian noise and speckle noise. Noise arises due to various factors like bit error rate, speed, dead pixels. Denoising algorithm is application dependent i.e. the application of a specific filter is beneficial against a specific kind of noise. The filtering approach has been proved to be the best when the image is corrupted with salt and pepper noise. In the filtering approach Median filter provides best result against impulsive noise i.e. salt and pepper noise. The wavelet based approach finds applications in denoising images corrupted with Gaussian noise. If the noise characteristics are complex, then multifractal approach can be used.

Keywords: Image denoising, mean filter, adaptive filter, median filter, Moving Window.

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