Abstract

The image gets corrupted by Additive White Gaussian Noise during the process of acquisition, transmission, storage and retrieval. Denoising refers to suppressing the noise while retaining the edges and other important detailed structures as much as possible. This paper presents a general structure of the recovery of images using a combination of variation methods and wavelet analysis. The variation formulation of the problem allows us to build the properties of the recovered signal directly into the analytical machinery. The efficient wavelet representation allows us to capture and preserve sharp features in the signal while it evolves in accordance with the variation laws. We propose the three different variation model for removing noise as Horizontal, vertical and Cluster. Horizontal and Vertical variation model obtained the threshold at each decomposed level of Wavelet. Cluster variation model moving mask in different wavelet sub band. This proposed scheme has better PSNR as compared to other existing technique.

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**Index Terms**

Computer Science  Signal Processing

**Keywords**

Horizontal Variation  Vertical Variation  Cluster Variation  Wavelet  Noise