Abstract

Image denoising has great significance in pre-processing step of imaging applications. Although state-of-the-art denoising methods are numerically notable and approach theoretical limits, they suffer from visible artifacts. The image denoising methods are transformed in both spatial and transformed frequency domain. Each domain has its advantages and shortcomings, which can be complemented by each other. We propose the Progressive gradient Histogram Preservation Image Denoising (PGHP) that combine both domains. This is a simple physical process, which progressively reduces noise by texture enhanced image denoising method of enforcing the gradient histogram preservation. The results with approx 1.08% improved are pointed out from the simulation.

References


Index Terms

Computer Science  Image Processing

Keywords

Image denoising, bilateral filtering, wavelet shrinkage, short-time Fourier transform, Image denoising.