Abstract

In fields such as demosaicking, texture removal, dynamic range compression, and photo enhancement many imaging modalities operate with images corrupted by different noise models. Bilateral filter and non-local mean filter are often applied for deduction of noise. This paper presents a new adaptive bilateral filter model to reconstruct edges by choosing neighborhood with non-local mean concept. The method yields considerable gain reduction of noise and keep edges better than original method. Basing in visual inspection, the new method considered as effective even in case of mixed noise.


Douglas R. Lanman, functions implements 2-D bilateral filtering for the grayscale or color image, Brown University, 2006.

Index Terms

Computer Science  Image Processing

Keywords

Denoising  filtering  non-local mean  bilateral filter