Abstract

This paper introduces the concept of image fusion of filtered noisy images for impulse noise reduction. Image fusion is the process of combining two or more images into a single image while retaining the important features of each image. Multiple image fusion is an important technique used in military, remote sensing and medical applications. Five different filtering algorithms are used individually for filtering the image captured from the sensor. The filtered images are fused to obtain a high quality image compared to individually denoised images. In-order to better appraise the noise cancellation behavior of our fusion technique from the point of view of human perception, an edge detection is performed using canny filter for the fused image. Experimental results show that this method is capable of producing better results compared to individually denoised images.
Reference

- S. Indu, Chaveli Ramesh, “A noise fading technique for images highly corrupted with impulse noise”, Proceedings of the ICCTA07, IEEE.

Index Terms

Computer Science  Image Processing

Key words

Impulse Noise  Image Enhancement  Image Restoration

Image Processing  Image Fusion