Abstract

A noise removal (de-noising) is one of the important problems in image processing applications. The noise added to the original image by changes the intensity of some pixels while other remain unchanged. Salt-and-pepper noise is one of the impulse noises, to remove it a simplest way used by windowing the noisy image with a conventional median filter. Median filters are the most popular filters extensively applied to eliminate salt-and-pepper noise. This paper evaluates the performance of median filter based on the effective median per window by using different window sizes. The experimental results show that median filter has a good performance in low noise densities and also in high noise densities when using high level of window sizes, but with higher window size a degree of blurring effect will be added to filtered noise.

The approach used is a windowing operator technique to cut the pixels of an image, and apply filtering processing to them that take different window sizes 3*3 and 5*5 and 7*7. The results obtain for image size of 250*400.
References


Index Terms

Computer Science | Image Processing

Keywords

Image filtering, median filter, gray image, salt & pepper noise