An Efficient Method for Removal of High-Density Salt-and-Pepper Noise

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 180

Number 31

Year of Publication: 2018

Authors:

Xiaohui Guo

10.5120/ijca2018916813

Abstract

In this paper, a novel algorithm for removing high-density salt-and-pepper noise from corrupted images is presented. Initially, salt-and-pepper pixels are identified in the detection stage. Then, the median value of non salt-and-pepper pixels is calculated, and the non salt-and-pepper pixels revolve around the current salt-and-pepper pixel in the window. The median value is the new grayscale values of the current salt-and-pepper pixel and it is calculated using the mean value. Simulation results indicate that the proposed method can remove high-density salt-and-pepper noise well and reserve image details, edges and textures best.

References


**Index Terms**

Computer Science  
Image Processing

**Keywords**

salt-and-pepper noise, identify, median value, mean value.