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

739-746.


Index Terms

Computer Science

Image Processing

Keywords

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