Rough Neural Networks in Adapting Cellular Automata Rule for Reducing Image Noise

Authors : Yasser F. Hassan

Abstract : The reduction or removal of noise in a color image is an essential part of image processing, whether the final information is used for human perception or for an automatic inspection and analysis. This paper describes the modeling system based on the rough neural network model to adaptive cellular automata for various image processing tasks and noise remover. In this paper, we consider the problem of object processing in colored image using rough neural networks to help deriving the rules which will be used in cellular automata for noise image. The proposed method is compared with some classical and recent methods. The results demonstrate that the new model is capable of being trained to perform many different tasks, and that the quality of these results is comparable or better than established specialized algorithms.