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Abstract

Clustering is used to arrange the graphic data in the cluster unsupervised learning methods. Clustering is used in the field of image processing to identifying objects that have same features in an image. Clustering can be categorized into Hard and Fuzzy clustering scheme. This article discusses the study of hard clustering based Standard K-Means and different soft (fuzzy) clustering algorithm exits such as Fuzzy C-Means (FCM) and Possibilistic Fuzzy C-Means (PFCM). These algorithms are used to segment and analyse the standard and coloured images but this research work deals with noisy grayscale images. PSNR, MSE and SSIM are used as evaluation parameter to compare the K-Means, FCM and PFCM results. Finally, the experimental results proved that PFCM favorable over FCM and K-Means.

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1.

Computer Science

Index Terms

Algorithms

Keywords

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