Abstract

Image segmentation becomes simpler when the image is made up of smooth images. Many real world images are made up of a variety of smooth and textures regions, all of which need to be identified in the segmentation algorithm. In such cases the existing methods fail to produce meaningful segmentation, successfully segmenting only the smooth or textured regions depending on the features used. The segmentation problem can be informally described as the task of partitioning an image into homogeneous regions. But in the textured images one of the main conceptual difficulties is the definition of a homogeneity measure in mathematical terms with of much complexity. By using a clustering algorithm, we can label the pixels of an image to form homogeneous functions or regions. Different clustering algorithms were commonly used in image segmentation algorithms. There are several issues related to image segmentation that require detailed review. The segmentation doesn’t perform well if the grey levels of different objects are quite similar. This result in complex texture based image segmentation to use higher filter. But in future this technique used for dimensionality reduction to improve the speed.

References

Comparison of SOM Algorithm and K-Means Clustering Algorithm in Image Segmentation

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Index Terms

Computer Science	Image Processing
Keywords
Feature Map  Self Organizing Map  Clustering  Neural Networks  Segmentation.