Abstract

During the last few years, the Segmentation problem has been tackled from different disciplines. Many algorithms have been developed to solve this problem. AntClust algorithm is an ant-based algorithm that uses the self-organizing and autonomous brood sorting behavior observed in real ants for unsupervised partitioning. A population of artificial ants provides an image segmentation of the relevant classes without any previous knowledge about the number of classes needed. This paper proposes a hybrid solution based on AntClust algorithm and data mining (e.g., Kmeans). Experimental results demonstrate that the proposed solution is able to extract the correct number of clusters with better clustering quality and execution time compared to the results obtained from AntClust algorithm.

References


Index Terms

Computer Science Image Processing
Keywords
Image Segmentation  Image Clustering  AntClust algorithm.