Abstract

Algorithm k-means is useful for grouping operations; however, when is applied to large amounts of data, its computational cost is high. This research propose an optimization of k-means algorithm by using parallelization techniques and synchronization, which is applied to image segmentation. In the results obtained, the parallel k-means algorithm, improvement 50% to the algorithm sequential k-means.

References

- Suman Tatiraju and Avi Mehta. Image segmentation using kmeans clustering, em and normalized cuts.

**Index Terms**

Computer Science | Image Processing

**Keywords**

parallelization  k-means  segmentation  images