Abstract

The DBSCAN [1] algorithm is a popular algorithm in Data Mining field as it has the ability to mine the noiseless arbitrary shape Clusters in an elegant way. As the original DBSCAN algorithm uses the distance measures to compute the distance between objects, it consumes so much processing time and its computation complexity comes as $O(N^2)$. In this paper we have proposed a new algorithm to improve the performance of DBSCAN algorithm. The existing algorithms A Fast DBSCAN Algorithm[6] and Memory effect in DBSCAN algorithm[7] has been combined in the new solution to speed up the performance as well as improve the quality of the output. As the RegionQuery operation takes long time to process the objects, only few objects are considered for the expansion and the remaining missed border objects are handled differently during the cluster expansion. Eventually the performance analysis and the cluster output show that the proposed solution is better to the existing algorithms.
Reference


Index Terms

Computer Science Algorithms

Key words

Cluster Optimised DBSCAN Density

Optimised RegionQuery

RegionQuery