

ABSTRACT

Spatial data clustering is one of the important fundamental data mining tasks. Clustering is the ability to gather similar type of data objects in a group. Many different spatial data clustering paradigms have been developed over the years, which includes partitional, hierarchical, density-based, grid-based and model-based. In this work, we will mainly focus on the Density based clustering technique. In this report, we propose an efficient clustering method which can detect embedded and nested clusters over variable density space. The proposed method, VDSC uses a density based approach for detecting clusters of arbitrary shapes, sizes and densities. VDSC was compared with several other comparable algorithms and the experimental results show that our method could detect all clusters effectively. Also, VDSC has been slightly modified to VDSC-I to handle image datasets. VDSC-I could detect the clusters present in the image datasets effectively. The execution time performance of the algorithm has been found to be better than other comparable algorithms.