

## Hybridized Approach for Distance Estimation Using K-Means Clustering

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**Abstract :** Clustering using the K-means algorithm is a very common way to understand and analyze the obtained output data. When a similar object is grouped, this is called the basis of Clustering. There is K number of objects and C number of cluster in to single cluster in which k is always supposed to be less than C having each cluster to be its own centroid but the major problem is how is identify the cluster is correct based on the data. Formulation of the cluster is not a regular task for every tuple of row record or entity but it is done by an iterative process. Each and every record, tuple, entity is checked and examined and similarity dissimilarity is examined. So this iterative process seems to be very lengthy and unable to give optimal output for the cluster and time taken to find the cluster. To overcome the drawback challenge, we are proposing a formula to find the clusters at the run time, so this approach can give us optimal results. The proposed approach uses the Euclidian distance formula as well melanosis to find the minimum distance between slots as technically we called clusters and the same approach we have also applied to Ant Colony Optimization(ACO) algorithm, which results in the production of two and multi-dimensional matrix.

**Keywords :** ant colony optimization, data clustering, centroids, data mining, k-means

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