

## عنوان مقاله:

Select optimal k in the k-means clustering algorithm

## محل انتشار:

اولین کنفرانس ملی بهینه سازی و روش های نوین حل مسئله (سال: 1400)

تعداد صفحات اصل مقاله: 9

## نویسندگان:

Mojtaba Jahanian - Department of Computer Engineering, Faculty of Engineering, Arak Branch, Islamic Azad, University, IRAN

Abbas Karimi - Department of Computer Engineering, Faculty of Engineering, Arak Branch, Islamic Azad, University, IRAN

Faraneh Zarafshan - Department of Computer Engineering, Faculty of Engineering, Arak Branch, Islamic Azad, University, IRAN

## خلاصه مقاله:

Clustering is one of the most important machines for learning unseen algorithms. Data is not labeled in clustering. The starting point of clustering is very important. Choosing the right number of spikes for clustering is like choosing the right seed. The performance of the algorithm depends on selecting the appropriate number of clusters and selecting the optimal centers. Cluster quality and optimal number of clusters are important in cluster analysis. In this article, we have tried to differentiate our work from other existing articles by careful analysis and comparison of existing algorithms, and a clear and accurate understanding of all aspects. Research compared to other articles. Due to the importance of selecting the number of clusters, we present a smart algorithm in this paper (SONSC: Select the Optimal Number of Smart Clustering). The proposed SONSC algorithm provides an index that can perform clustering with higher accuracy by considering the three criteria of minimum internal distance between points of a cluster and (maximum external distance between clusters and considering cluster level (number of clusters).

## کلمات کلیدی:

Clustering algorithms, K-means, clustering, optimal number of clusters

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1258168>

