# K-Means Clustering-Based Infinite Feature Selection Method

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**Abstract :** Infinite Feature Selection (IFS) algorithm is an efficient feature selection algorithm that selects a subset of features of all sizes (including infinity). In this paper, we present an improved version of it, called clustering IFS (CIFS), by clustering the dataset in advance. To do so, first, we apply the K-means algorithm to cluster the dataset, then we apply IFS. In the CIFS method, the spatial and temporal complexities are reduced compared to the IFS method. Experimental results on 6 datasets show the superiority of CIFS compared to IFS in terms of accuracy, running time, and memory consumption.