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A Novel Method for Cluster Analysis in Data Mining using Improved Fuzzy C-Means Algorithm

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Abstract –**Clustering is a data mining technique of grouping set of data objects into multiple groups or clusters so that objects within the cluster have high similarity, but are very dissimilar to the objects in the other clusters. Fuzzy C-Means is the most widely used method where an element may have partial membership grades in more than one fuzzy cluster. This paper makes use of MATLAB language to produce a fuzzy clustering algorithm for classifying the batting statistics of Indian Premier League (IPL) T-20 cricket tournament into several numbers of clusters. The clusters as well as the membership function has been implemented using MATLAB. The results obtained from Indian premier league batting statistics dataset detect n-clusters to handle the imprecise and ambiguous result. Proposed research work provide an Improved Fuzzy C-Means clustering technique which provide sufficient and accurate data analysis in the field of data mining and the minimal distance between clusters is determined by using the Hermitian distance method.**

Keywords – **Clustering, Fuzzy C-Means, Hermitian distance, Indian Premier League.**