Artificial Bee Colony Algorithm is More Effective on Small Size Datasets as Compared to Large Size Datasets in Data Clustering

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Abstract

Data clustering is a widespread data compression, vector quantization, data analysis and data mining technique. The principle objective of data clustering is to make clusters (or groups) such that data having high degree of similarity is gathered in the same cluster while data having high degree of dissimilarity is gathered in the different clusters and plays a key role for users to organize, summarize, and steer the data adequately. In this work Artificial Bee Colony (ABC) algorithm is applied to different size datasets. Results clearly show that ABC when applied on small size datasets were more effective than those of large size datasets in terms of intra-cluster distance, computation cycles and time required to complete those cycles.

References

2. M. Omran, A. Salman, and A. P. Engelbrecht, "Image classification using particle swarm


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Index Terms

Computer Science \hspace{1cm} Algorithms

Keywords

Artificial bee colony algorithm; Data clustering.