Abstract

Data clustering is one of the data mining task, it is used to group the data objects according to their similarity. It is an optimization problem to find optimal results apply the proposed parallel approach called P-AISFLA. This hybrid algorithm is developed by utilizing the benefits of both social and immune mechanisms. The social algorithm Shuffled Frog Leaping Algorithm is a new parameter free population based algorithm combined with Clonal selection algorithm CSA.

This hybrid algorithm performs the parallel computation of social behavior based SFLA and Immune behavior based CSA to improve the ability to reach the global optimal solution with a faster and a rapid convergence rate.

The proposed algorithm PAISFL is applied for the data clustering applications and proved that it produces optimal results than SFLA and PSO.
A Novel Immune Optimization with Shuffled Frog Leaping Algorithm - A Parallel Approach for Unsupervised Data Clustering

References

Index Terms

Computer Science

Information Sciences

Keywords

Data clustering, Shuffled Frog Leaping Algorithm (SFLA), CLONALG and P-AISFLA.