Abstract

Cancer classification based on microarray data is an important problem. Prediction models are used for classification which helps the diagnosis procedures to improve and aid in the physician’s effort. A hybrid swarm model for microarray data is proposed for performance evaluation based on Nature-inspired metaheuristic algorithms. Firefly Algorithm (FA) is the most...
powerful algorithms for optimization used for multimodal applications. In this paper a Flexible Neural Tree (FNT) model for microarray data is constructed using Nature-inspired algorithms. The FNT structure is developed using the Ant Colony Optimization (ACO) and the parameters embedded in the neural tree are optimized by Firefly Algorithm (FA). FA is superior to the existing metaheuristic algorithm and solves multimodal optimization problems. In this research, comparisons are done with the proposed model for evaluating its performance to find the appropriate model in terms of accuracy and error rate.

Reference

- Yuehui Chen, Bo Yang and Jiwen Dong, “Evolving Flexible Neural Networks using Ant
A Comparative Performance Study on Hybrid Swarm Model for Microarray Data


Index Terms

Computer Science
Algorithms

Key words

ACO
Accuracy
Classification

FNT

FA