A Hybrid SFL-Bees Algorithm

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 128 - Number 5

Year of Publication: 2015

Authors:
Duc Hoang Nguyen

10.5120/ijca2015906541

Abstract

This paper proposes Hybrid SFL-Bees Algorithm that combines strengths of Shuffled Frog Leaping Algorithm (SFLA) and Bees Algorithms (BA). While SFLA can find optimal solutions quickly because of directive searching and exchange of information, BA has higher random that make it easily escape local optima to find global solutions. Thus Hybrid SFL-Bees Algorithm is able to find optimal solutions quickly like SFLA and escape local optima like BA. Numerical simulations are carried out on two well-known continuous benchmark functions: Griewangk's function (F8) and Schwefel's function (F7), and the comparative results have shown the effectiveness of the proposed algorithm, its ability to achieve good quality solutions and processing time, which outperforms the SFLA and BA.

References


**Index Terms**

Computer Science

Algorithms

**Keywords**

Optimization, Hybrid, SFLA, Bees Algorithm.