

Using binary fruit fly algorithm for solving the set covering problem [Utilizando el Algoritmo binario Fruit Fly para resolver el Problema del Conjunto de Cobertura]

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Many practical applications are used in set covering problems (SCP), in this research, we used to solve SCP: the binary Fruit Fly Optimization algorithms. This algorithm is divided in four phases: initiation, smell based search local vision based search and global vision based search. The metaheuristic is based by the knowledge from the foraging behavior of fruit-flies in finding food. The algorithm used a probability vector to improve the exploration. The tests were performed with eight different transfer functions and an elitist selection method. The test results show the effectiveness of the algorithm proposed. © 2015 AISTI.

fruit fly optimization algorithm

metaheuristics

set covering problem

transfer functions

Bins

Factory automation

Fruits

Information systems

Optimization

Transfer functions

Algorithm for solving

Foraging behaviors

Fruit flies

Meta heuristics

Metaheuristic

Probability vector

Selection methods

Set covering problem

Algorithms