

The set covering problem solved by the binary teaching-learning-based optimization algorithm [Problema del Conjunto de Cobertura Resuelto Mediante el Algoritmo Binario de Optimización Basado en Enseñanza- Aprendizaje]

Crawford B.

Soto R.

Leiva F.A.

Johnson F.

Paredes F.

The Set Covering Problem (SCP) is a representation of a kind of combinatorial optimization problem which has been applied in several problems in the real world. In this work is used the binary version of Teaching-Learning-Based Optimization algorithm (TLBO), which works with two phases known as teacher and learner phases in this way emulates the behaviour into a classroom, besides this problem is solved with eight different transfer functions and five discretization methods all of them altogether to solve The Set Covering Problem from the OR-Library. © 2015 AISTI.

Binary Teaching-learning-based optimization algorithm (BTLBO)

Metaheuristic

Optimization Problem

Set Covering Problem

Algorithms

Bins

Combinatorial optimization

Discrete event simulation

Information systems

Learning algorithms

Teaching

Combinatorial optimization problems

Discretization method

Metaheuristic

Optimization problems

Real-world

Set covering problem

Teaching-learning-based optimizations

Optimization