A binary firefly algorithm for the set covering problem

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The non-unicost Set Covering Problem is a well-known NP-hard problem with many practical applications. In this work, a new approach based on Binary Firefly Algorithm is proposed to solve this problem. The Firefly Algorithm has attracted much attention and has been applied to many optimization problems. Here, we demonstrate that is also able to produce very competitive results solving the portfolio of set covering problems from the OR-Library. © Springer International Publishing Switzerland 2014.

Binary firefly algorithm

Metaheuristic

Set covering problem

Algorithms

Bioluminescence

Computational complexity

Factory automation

Optimization

Social networking (online)

Firefly algorithms

Metaheuristic

New approaches

Optimization problems

Set covering problem

Problem solving