A binary invasiveweed optimization algorithm for the set covering problem

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The Set Covering Problem (SCP) is a classic problem of combinatorial analytic. This problem consists in to find solutions what cover the needs to lower cost. Those can be services to cities, load balancing in production lines or databanks selections. In this paper,we study the resolution of SCP, through InvasiveWeed Optimization (IWO), in its binary version; Binary InvasiveWeed Optimization (BIWO). IWO, it is to imitate to InvasiveWeed behavior (reproduction and selection natural), through mathematics formulations. Where the best weed has more chance of reproduction. © Springer International Publishing Switzerland 2016.

Binary invasive weed

Invasive weed optimization

Metaheuristics

Set covering problem

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Bins

Intelligent systems

Network management

Databanks

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Optimization