

A hybrid Ant algorithm for the set covering problem

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Set covering problem is the model for many important industrial applications. In this paper, we solve some benchmarks of this problem with ant colony optimization algorithms using a new transition rule. A look-ahead mechanism was incorporated to check constraint consistency in ant computing. Computational results are presented showing the advantages to use this additional mechanism to ant system and ant colony system. © 2011 Academic Journals.

Ant colony optimization

Look-ahead techniques

Set covering problem