

- PROPÓSITO: *Generación de Conocimiento*; SECTOR → DISCIPLINA: (Tecnologías de la Información y Comunicaciones → Computación)
- 2009-06-12
Performance Analysis of the Neighboring-Ant Search Algorithm through Design of Experiment.
Autor(es): Gómez-Santillán, Claudia; Cruz-Reyes, Laura; Meza-Conde, Eustorgio; Amaro-Martinez, Claudia; Aguirre-Lam, Marco Antonio; Ochoa-Ortiz Zazzatti, Carlos Alberto
This work applies techniques of Design of Experiments for the analysis of NAS algorithm. The objective is to find out significant parameters for the algorithm performance and relations among them.
REVISTA: Hybrid Artificial Intelligence Systems - Springer-Verlag (pags. 662-669), MÉXICO; ISSN: 0302-9743;
DIRECCION ELECTRÓNICA: http://link.springer.com/chapter/10.1007/978-3-642-02319-4_80
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- 2009-06-12
A New Approach to Improve the Ant Colony System Performance: Learning Levels
Autor(es): Cruz-Reyes, Laura; Gonzalez-Barbosa, Juan J.; Delgado-Orta, José Francisco; Arrañaga-C., Barbara A.; Fraire-Huacuja, Héctor J.
In this paper a hybrid ant colony system algorithm is presented. A new approach to update the pheromone trails, denominated learning levels, is incorporated. Learning levels is based on the distributed Q-learning algorithm, a variant of reinforcement learning, which is incorporated to the basic ant colony algorithm.
REVISTA: Hybrid Artificial Intelligence Systems - Springer-Verlag (pags. 670-677), MÉXICO; ISSN: 0302-9743;
DIRECCION ELECTRÓNICA: http://link.springer.com/chapter/10.1007/978-3-642-02319-4_81
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- 2009-01-01
Solving large scale instances of the distribution design problem using data Mining.
Autor(es): Freire, Héctor; Cruz-Reyes, Laura; Pérez, Joaquín; Pazos, Rodolfo; Romero, David; Fausto, Juan
We propose a new approach that includes compression methods to transform the original instance into a new one using data mining techniques. The goal of the transformation is to condense the operation access pattern of the original instance to reduce the amount of resources needed to solve the original instance, without significantly reducing the quality of its solution.
REVISTA: Computing and Informatics, Slovak University Press - Computing and Informatics (pags. 29-56), MÉXICO; ISSN: 1335-9150; INDEXADO EN: JCR
DIRECCION ELECTRÓNICA: <http://www.cai.sk/ojs/index.php/cai/article/view/23/10>
PROPÓSITO: *Generación de Conocimiento*; SECTOR → DISCIPLINA: (Tecnologías de la Información y Comunicaciones → Computación)
- 2009-01-01
NAS Algorithm for Semantic Query Routing Systems in Complex Networks
Autor(es): Cruz-Reyes, Laura; Gómez-Santillán, Claudia; Aguirre-Lam, Marco Antonio; Schaeffer, Satu Elisa; Turrubiates-López, Tania; Ortega-Izaguirre, Rogelio; Fraire-Huacuja, Héctor Joaquín
In this paper, we evaluate the performance of the NAS algorithm (Neighboring-Ant Search), which is an algorithm for distributed textual query routing based on the Ant Colony System metaheuristic and SemAnt algorithm, improved with a local topological characterization metric and a classic local exploration method called lookahead, with the aim of improving the performance of the distributed search.
REVISTA: Advances in Soft Computing - Springer-Verlag (pags. 284-292), MÉXICO; ISSN: 1615-3871;
DIRECCION ELECTRÓNICA: http://link.springer.com/chapter/10.1007/978-3-540-85863-8_34
PROPÓSITO: *Generación de Conocimiento*; SECTOR → DISCIPLINA: (Tecnologías de la Información y Comunicaciones → Computación)
- 2009-01-01
Less Expensive Formulation for a Realistic Routing-Scheduling-Loading Problem (RoSLoP)
Autor(es): González-Barbosa, Juan Javier; Cruz-Reyes, Laura; Delgado-Orta, José Francisco; Fraire-Huacuja, Héctor Joaquín; Castilla-Valdez, Guadalupe; Sosa-Sosa Víctor Jesús
In this paper the Routing-Scheduling-Loading Problem (RoSLoP) is approached. This is a rich bin packing (BPP) and vehicle routing (VRP) problem formulated to satisfy the transportation requirements of a bottling company located in Mexico.
REVISTA: Advances in Soft Computing - Springer-Verlag (pags. 481-489), MÉXICO; ISSN: 1615-3871;
DIRECCION ELECTRÓNICA: http://link.springer.com/chapter/10.1007/978-3-540-85863-8_56
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- 2009-01-01
Symbolic Summation of Polynomials in Linear Space and Quadratic Time
Autor(es): Torres-Jimenez, Jose; Cruz-Reyes, Laura; Rangel-Valdez, Nelson
This work is related to the field of symbolic computation, specifically we present an optimized algorithm that is able to compute symbolic summation of polynomials. The algorithm is based on the solution of a system of simultaneous equations that delivers the coefficients of the resulting polynomial.
REVISTA: Advances in Soft Computing - Springer-Verlag (pags. 653-657), MÉXICO; ISSN: 1615-3871;
DIRECCION ELECTRÓNICA: http://link.springer.com/chapter/10.1007/978-3-540-85863-8_77
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- 2008-06-26
An Application of Causality for Representing and Providing Formal Explanations about the Behavior of the Threshold Accepting Algorithm
Autor(es): Pérez, Joaquín; Cruz-Reyes, Laura; Pazos, Rodolfo A.; Landero-N., Vanesa; Reyes-Salgado, Gerardo; Fraire-Huacuja, Héctor J.; Frausto-Solis, Juan
This work approaches the problem of explaining through causal model the interrelations between instances characteristics and the inner workings of algorithms. For validating the results of the proposed approach, a set of experiments was carried out in a study case of the Threshold Accepting algorithm to solve the Bin Packing problem.