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Ant Colony Optimization

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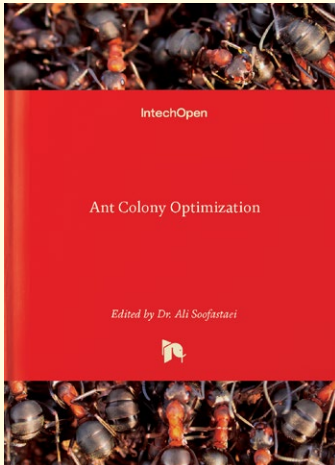
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About the book

The book aims to provide practical help for researchers, and industrial specialists who are interested in using the new science and technology to improve their knowledge and experience in the field of optimization. Optimization problems are very important in the field of both scientific and industrial. Some real-life examples of these optimization problems are timetable scheduling, nursing time distribution scheduling, train scheduling, capacity planning, vehicle routing problems, group-shop scheduling problem, portfolio optimization, etc. Many optimizations algorithms are developed for this reason. Ant Colony Optimization (ACO) is one of them. ACO is a probabilistic technique for finding optimal paths. In computer science and researches, the ACO algorithm is used for solving different computational problems. There are many optimization problems where the ACO can be applied for finding the optimal solution. Some of them are Image processing, Capacitated vehicles routing, Stochastic vehicles routing, Vehicle routing with pick-up and delivery, Connectionless network routing, Data mining, Group-shop scheduling, Distributed information retrieval, Nursing time distribution, Permutation flow shop problem, Frequency assignment problem, Redundancy allocation problem, and Electricity network design. The Objective of the book is to provide a concise overview of the state of the art of ACO for industrial researchers. They will value a book that helps them position the emerging capabilities of ACO in their businesses and provide an assessment of where and how these new capabilities can help to optimize the end to end operations of their enterprises.

Topics and Keywords

Book Topic 1: Image Processing by Ant Colony Optimization (ACO)

Book Topic 1 Keywords: *Ant Colony, Optimization, Image Processing, Edge Detection*

Book Topic 2: Vehicles Routing by Ant Colony Optimization (ACO)

Book Topic 2 Keywords: *Ant Colony, Optimization, Vehicles Routing, Multi-depot Vehicle Routing, Time dependent vehicle routing*

Book Topic 3: Connectionless network routing by Ant Colony Optimization (ACO)

Book Topic 3 Keywords: *Connectionless network, Network routing, Ant Colony, Optimization*

Book Topic 4: Data mining by Ant Colony Optimization (ACO)

Book Topic 4 Keywords: *Data mining, Ant Colony, Optimization, Big Data*

Book Topic 5: Distributed information retrieval by Ant Colony Optimization (ACO)

Book Topic 5 Keywords: *Distributed information retrieval, Ant Colony, Optimization, Artificial Intelligence*

Book Topic 6: Energy and electricity network design by Ant Colony Optimization (ACO)

Book Topic 6 Keywords: *Electricity network, Network design, Ant Colony, Optimization*

Selected Book Keywords

Image Processing, Ant Colony, Edge Detection, Vehicles Routing, Multi-Depot Routing, Connectionless Network Routing, Data Mining, Big Data, Distributed Information Retrieval, Artificial Intelligence, Electricity Network Design, Optimization

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