Record Nr. UNINA9910809900403321 Evolutionary optimization / / edited by Ruhul Sarker, Masoud **Titolo** Mohammadian, Xin Yao Pubbl/distr/stampa Boston, : Kluwer Academic Publishers, c2002 **ISBN** 1-280-46221-3 9786610462216 0-306-48041-7 Edizione [1st ed. 2002.] Descrizione fisica 1 online resource (433 p.) Collana International series in operations research & management science;; 48 Altri autori (Persone) SarkerRuhul A MohammadianMasoud YaoXin <1962-> Disciplina 519.3 Soggetti Mathematical optimization Operations research Evolutionary programming (Computer science) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Conventional Optimization Techniques -- Evolutionary Computation --Single Objective Optimization -- Evolutionary Algorithms and Constrained Optimization -- Constrained Evolutionary Optimization --Multi-Objective Optimization -- Evolutionary Multi-Objective Optimization: A Critical Review -- Multi-Objective Evolutionary Algorithms for Engineering Shape Design -- Assessment Methodologies for Multiobjective Evolutionary Algorithms -- Hybrid Algorithms -- Utilizing Hybrid Genetic Algorithms -- Using Evolutionary Algorithms to Solve Problems by Combining Choices of Heuristics -- Constrained Genetic Algorithms and Their Applications in Nonlinear Constrained Optimization -- Parameter Selection in EAs --Parameter Selection -- Application of EAs to Practical Problems --Design of Production Facilities Using Evolutionary Computing -- Virtual Population and Acceleration Techniques for Evolutionary Power Flow

Calculation in Power Systems -- Application of EAs to Theoretical Problems -- Methods for the Analysis of Evolutionary Algorithms on Pseudo-Boolean Functions -- A Genetic Algorithm Heuristic for Finite

Sommario/riassunto

Horizon Partially Observed Markov Decision Problems -- Using Genetic Algorithms to Find Good K-Tree Subgraphs.

Evolutionary computation techniques have attracted increasing atttions in recent years for solving complex optimization problems. They are more robust than traditional methods based on formal logics or mathematical programming for many real world OR/MS problems. Elutionary computation techniques can deal with complex optimization problems better than traditional optimization techniques. However, most papers on the application of evolutionary computation techniques to Operations Research / Management Science (OR/MS) problems have scattered around in different journals and conference proceedings. They also tend to focus on a very special and narrow topic. It is the right time that an archival book series publishes a special volume which - cludes critical reviews of the state-of-art of those evolutionary comtation techniques which have been found particularly useful for OR/MS problems, and a collection of papers which represent the latest develment in tackling various OR/MS problems by evolutionary computation techniques. This special volume of the book series on Evolutionary timization aims at filling in this gap in the current literature. The special volume consists of invited papers written by leading - searchers in the field. All papers were peer reviewed by at least two recognised reviewers. The book covers the foundation as well as the practical side of evolutionary optimization.