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Titolo	Evolutionary optimization [[electronic resource] /] / edited by Ruhul Sarker, Masoud Mohammadian, Xin Yao
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Collana	International series in operations research & management science ; ; 48
Altri autori (Persone)	SarkerRuhul A MohammadianMasoud YaoXin <1962->
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Soggetti	Mathematical optimization Operations research Evolutionary programming (Computer science)
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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

Evolutionary computation techniques have attracted increasing attention 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. Evolutionary 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 includes critical reviews of the state-of-art of those evolutionary computation techniques which have been found particularly useful for OR/MS problems, and a collection of papers which represent the latest development in tackling various OR/MS problems by evolutionary computation techniques. This special volume of the book series on Evolutionary Optimization aims at filling in this gap in the current literature. The special volume consists of invited papers written by leading researchers 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.

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