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| 1. Record Nr. | UNINA9910156339703321 |
| Titolo | Metaheuristics / / edited by Patrick Siarry |
| Pubbl/distr/stampa | Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016 |
| ISBN | 9783319454030 |
| Edizione | [1st ed. 2016.] |
| Descrizione fisica | 1 online resource (XVI, 489 p. 181 illus., 69 illus. in color.) |
| Disciplina | 006.3 |
| Soggetti | Artificial intelligence Computational intelligence Operations research Decision making Mathematical optimization Artificial Intelligence Computational Intelligence Operations Research/Decision Theory Optimization |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di bibliografia | Includes bibliographical references at the end of each chapters and index. |
| Nota di contenuto | Introduction -- Simulated Annealing -- Tabu Search -- Search in Variable Neighborhoods -- The GRASP Search Algorithm -- Evolutionary Algorithms -- Artificial Ants -- Particle Swarms -- Other Metaheuristics -- Other Social Insect Algorithms -- Extending Evolutionary Algorithms for Multiobjective Optimization -- Extending Evolutionary Algorithms for Optimization Under Constraints -- Modeling and Comparison Methods -- Hybrid Metaheuristics for Optimizing Logistics -- Metaheuristics for Vehicle Routing Problems -- Applications in Air Traffic Management. |
| Sommario/riassunto | Metaheuristics exhibit desirable properties like simplicity, easy parallelizability, and ready applicability to different types of optimization problems. After a comprehensive introduction to the field, the contributed chapters in this book include explanations of the main metaheuristics techniques, including simulated annealing, tabu search, |

evolutionary algorithms, artificial ants, and particle swarms, followed by chapters that demonstrate their applications to problems such as multiobjective optimization, logistics, vehicle routing, and air traffic management. The authors are leading researchers in this domain, with considerable teaching and applications experience, and the book will be of value to industrial practitioners, graduate students, and research academics.
