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	Nota di contenuto	Metaheuristics in Process Engineering: A Historical Perspective -- Applications of Genetic Algorithms in Chemical Engineering I: Methodology -- Applications of Genetic Algorithms in Chemical Engineering II: Case Studies -- Strategies for Evolutionary Data-Driven Modeling in Chemical and Metallurgical Systems -- Swarm Intelligence in Pulp and Paper Process Optimization -- Particle Swarm Optimization Technique for Optimal Design of Plate Type Distillation Column -- Reliable Optimal Control of a Fed-Batch Fermentation Process Using Ant Colony Optimisation and Bootstrap Aggregated Neural Network Models -- Biogeography-Based Optimization (BBO) for Dynamic Optimization of Chemical Reactors -- Biogeography-Based Optimization (BBO) Algorithm for Optimization of Heat Exchangers -- Optimization Heuristics Mimicking Chemical Processes -- In Silico Maturation: Processing Sequences to Improve Biopolymer Function Based on Genetic Algorithms -- Molecular Engineering of Electrically Conducting Polymers Using Artificial Intelligence Methods -- Applications of Genetic Algorithms in QSAR/QSPR Modeling -- Genetic

Algorithms in Drug Design: A Not So Old Story in a Newer Bottle -- Multi objective Genetic Algorithms for Chemical Engineering Applications -- A Multi objective Modelling and Optimization Framework for Operations Management of a Fresh Fruit Supply Chain: A Case Study on a Mexican Lime Company -- Jumping Gene Adaptations of NSGA-II with Altruism Approach: Performance Comparison and Application to Williams-Otto Process -- Hybrid Approach for Multi objective Optimization and Its Application to Process Engineering Problems.

Sommario/riassunto	Metaheuristics exhibit desirable properties like simplicity, easy parallelizability, and ready applicability to different types of optimization problems such as real parameter optimization, combinatorial optimization, and mixed integer optimization. They are thus beginning to play a key role in different industrially important process engineering applications, among them the synthesis of heat and mass exchange equipment, synthesis of distillation columns, and static and dynamic optimization of chemical and bioreactors. This book explains cutting-edge research techniques in related computational intelligence domains and their applications in real-world process engineering. It will be of interest to industrial practitioners and research academics.