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Soggetti	Computational intelligence Artificial intelligence Computational Intelligence Artificial Intelligence
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Nota di contenuto	Optimization of Fuzzy Logic Controllers with Distributed Bio-Inspired Algorithms -- Parallel-machine scheduling problem: An experimental study of instances difficulty and algorithms performance -- Comparison of Genetic Algorithm and Particle Swarm Optimization of Ensemble Neural Networks for Complex Time Series Prediction -- Path Planning by Search Algorithms in Graph-represented Workspaces -- Evaluation of Deep Learning Algorithms for Traffic Sign Detection to Implement on Embedded Systems -- Performance comparison of Parallel PSO-GA algorithm with dynamic parameter adjustment using Type-1 and Interval Type-2 Fuzzy Systems -- A novel study of the Multi-verse Optimizer and its applications on multiple areas of Computer Science -- Comparative Study of Type-1 and Interval Type-2 Fuzzy Systems in Parameter Adaptation of the Fuzzy Flower Pollination Algorithm -- A Comparative Study of the Grey Wolf Optimizer and Firefly Algorithm in Mathematical Benchmark Functions of the CEC 15 Competition -- Optimization of fuzzy controllers for autonomous mobile robots using the Stochastic Fractal Search method -- Fuzzy Dynamic Parameter Adaptation for Particle Swarm Optimization of Modular Granular Neural Networks applied to Time Series Prediction -- Review of fuzzy control for path tracking in the Robotino system --

Optimization of routes of a robot using bioinspired algorithms --
Optimal design of fuzzy logic systems through a Chicken Search
Optimization algorithm applied to a benchmark problem --
Optimization of fuzzy trajectory tracking in autonomous mobile robots
based on bio-inspired algorithms -- Swarm Intelligence: A Review of
Optimization Algorithms Based on Animal Behavior -- Optimization of
fuzzy systems through metaheuristics in control systems -- Optimal
design of interval type-2 fuzzy tracking controllers of mobile robots
using a metaheuristic algorithm.

Sommario/riassunto

This book describes recent advances on fuzzy logic, neural networks and optimization algorithms, as well as their hybrid combinations, and their application in areas such as intelligent control and robotics, pattern recognition, medical diagnosis, time series prediction and optimization of complex problems. The book contains a collection of papers focused on hybrid intelligent systems based on soft computing. There are some papers with the main theme of type-1 and type-2 fuzzy logic, which basically consists of papers that propose new concepts and algorithms based on type-1 and type-2 fuzzy logic and their applications. There are also some papers that present theory and practice of meta-heuristics in different areas of application. Another group of papers describes diverse applications of fuzzy logic, neural networks and hybrid intelligent systems in medical applications. There are also some papers that present theory and practice of neural networks in different areas of application. In addition, there are papers that present theory and practice of optimization and evolutionary algorithms in different areas of application. Finally, there are some papers describing applications of fuzzy logic, neural networks and meta-heuristics in pattern recognition problems.
