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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	A Novel Ant Colony Algorithm for Building Neural Network Topologies -- An ACO Algorithm to Solve an Extended Cutting Stock Problem for Scrap Minimization in a Bar Mill -- An Experiment in Automatic Design of Robot Swarms -- Angle Modulated Particle Swarm Variants -- Ant Colony Optimization on a Budget of 1000 -- Application of Supervisory Control Theory to Swarms of e-puck and Kilobot Robots -- Can Frogs Find Large Independent Sets in a Decentralized Way? Yes They Can! -- Diversity Rate of Change Measurement for Particle Swarm Optimizers -- Evolutionary Swarm Robotics: Genetic Diversity, Task-allocation and Task-switching -- Influencing a Flock via Ad Hoc Teamwork -- MACOC: A Medoid-based ACO Clustering Algorithm -- Particle Swarm Convergence: Standardized Analysis and Topological Influence -- Scheduling a Galvanizing Line by Ant Colony Optimization -- SRoCS: Leveraging Stigmergy on a Multi-robot Construction Platform for Unknown Environments -- Swarm in a Fly Bottle: Feedback-based Analysis of Self-organizing Temporary Lock-ins -- Temporal Task Allocation in Periodic Environments -- Towards a Cognitive Design

Pattern for Collective Decision-making -- Short Papers -- A Novel Competitive Quantum-behaviour Evolutionary Multi-swarm Optimizer Algorithm Based on CUDA Architecture Applied to Constrained Engineering Design -- Cooperative Object Recognition: Behaviours of a Artificially Evolved Swarm -- Emergent Diagnoses from a Collective of Radiologists: Algorithmic versus Social Consensus Strategies -- Foraging Agent Swarm Optimization with Applications in Data Clustering -- GPU Implementation of Food-foraging Problem for Evolutionary Swarm Robotics Systems -- Nature-inspired Swarm Robotics Algorithms for Prioritized Foraging -- Particle Swarm Optimisation with Enhanced Memory Particles -- Sorting in Swarm Robots Using Communication-based Cluster Size Estimation -- Using Fluid Neural Networks to Create Dynamic Neighborhood Topologies in Particle Swarm Optimization -- Extended Abstracts -- A Low-cost Real-time Tracking Infrastructure for Ground-based Robot Swarms -- A New Ant Colony Optimization Algorithm: Three Bound Ant System -- An Adaptive Bumble Bees Mating Optimization Algorithm for the Hierarchical Permutation Flowshop Scheduling Problem -- Gene Expression in DNA Microarrays: A classification problem using Artificial Bee Colony (ABC) algorithm -- Morphology Learning via MDL and Ants -- Parallelizing Solution Construction in ACO for GPUs -- Solving Resource-constraint Project Scheduling Problems based on ACO algorithms.

Sommario/riassunto

This book constitutes the proceedings of the 9th International Conference on Swarm Intelligence, held in Brussels, Belgium, in September 2014. This volume contains 17 full papers, 9 short papers, and 7 extended abstracts carefully selected out of 55 submissions. The papers cover empirical and theoretical research in swarm intelligence such as: behavioral models of social insects or other animal societies, ant colony optimization, particle swarm optimization, swarm robotics systems.
