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Titolo	Artificial Intelligence and Knowledge Engineering Applications: A Bioinspired Approach [[electronic resource]] : First International Work-Conference on the Interplay Between Natural and Artificial Computation, IWINAC 2005, Las Palmas, Canary Islands, Spain, June 15-18, 2005, Proceedings, Part II / / edited by José Mira, José R. Álvarez
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Evolutionary Computation -- Cultural Operators for a Quantum-Inspired Evolutionary Algorithm Applied to Numerical Optimization Problems -- New Codification Schemas for Scheduling with Genetic Algorithms -- Solving the Multidimensional Knapsack Problem Using an Evolutionary Algorithm Hybridized with Branch and Bound -- Cryptanalysis of Substitution Ciphers Using Scatter Search -- Combining Metaheuristics and Exact Algorithms in Combinatorial Optimization: A Survey and Classification -- Convergence Analysis of a

GA-ICA Algorithm -- An Evolutionary Strategy for the Multidimensional 0-1 Knapsack Problem Based on Genetic Computation of Surrogate Multipliers -- An Evolutionary Approach to Designing and Solving Fuzzy Job-Shop Problems -- Memetic Algorithms with Partial Lamarckism for the Shortest Common Supersequence Problem -- 2D and 3D Pictorial Networks of Evolutionary Processors -- Analysing Sentences with Networks of Evolutionary Processors -- Simulating Evolutionary Algorithms with Eco-grammar Systems -- Timed Accepting Hybrid Networks of Evolutionary Processors -- A New Immunotronic Approach to Hardware Fault Detection Using Symbiotic Evolution -- A Basic Approach to Reduce the Complexity of a Self-generated Fuzzy Rule-Table for Function Approximation by Use of Symbolic Regression in 1D and 2D Cases -- Parallel Evolutionary Computation: Application of an EA to Controller Design -- MEPIDS: Multi-Expression Programming for Intrusion Detection System -- A Study of Heuristic Techniques Inspired in Natural Process for the Solution of the Container Fill Problem -- Attribute Grammar Evolution -- Evolution and Evaluation in Knowledge Fusion System -- The Allele Meta-model -- Developing a Common Language for Genetic Algorithms -- Using Bees to Solve a Data-Mining Problem Expressed as a Max-Sat One -- A Comparison of GA and PSO for Excess Return Evaluation in Stock Markets -- Nonlinear Robust Identification Using Multiobjective Evolutionary Algorithms -- Genetic Algorithms for Multiobjective Controller Design -- Grammar Based Crossover Operator in Genetic Programming -- GA-Selection Revisited from an ES-Driven Point of View -- Agent WiSARD in a 3D World -- One Generalization of the Naive Bayes to Fuzzy Sets and the Design of the Fuzzy Naive Bayes Classifier -- Towards a Methodology to Search for Near-Optimal Representations in Classification Problems -- Playing a Toy-Grammar with GCS -- A Genetic Approach to Data Dimensionality Reduction Using a Special Initial Population -- Engineering Optimizations via Nature-Inspired Virtual Bee Algorithms -- Solving Partitioning Problem in Codesign with Ant Colonies -- Electronics and Robotics -- A Neuromimetic Integrated Circuit for Interactive Real-Time Simulation -- A FPGA Architecture of Blind Source Separation and Real Time Implementation -- Description and Simulation of Bio-inspired Systems Using VHDL--AMS -- Transistor-Level Circuit Experiments Using Evolvable Hardware -- An Electronic Reconfigurable Neural Architecture for Intrusion Detection -- Construction and VHDL Implementation of a Fully Local Network with Good Reconstruction Properties of the Inputs -- Reconfigurable Hardware Implementation of Neural Networks for Humanoid Locomotion -- An Associative Cortical Model of Language Understanding and Action Planning -- Neural Clustering Analysis of Macroevolutionary and Genetic Algorithms in the Evolution of Robot Controllers -- Induced Behavior in a Real Agent Using the Multilevel Darwinist Brain -- Landscaping Model for Virtual Environment -- Other Applications -- Sensitivity from Short-Term Memory vs. Stability from Long-Term Memory in Visual Attention Method -- Visual Attention, Visual Saliency, and Eye Movements During the Inspection of Natural Scenes -- Model Performance for Visual Attention in Real 3D Color Scenes -- On the Evolution of Formal Models and Artificial Neural Architectures for Visual Motion Detection -- Estimation of Fuel Moisture Content Using Neural Networks -- Adjustment of Surveillance Video Systems by a Performance Evaluation Function -- Application of Machine Learning Techniques for Simplifying the Association Problem in a Video Surveillance System -- A Neurocalibration Model for Autonomous Vehicle Navigation -- Some Remarks on the Application of Artificial Neural Networks to Optical Character Recognition -- Using

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Education Platform -- Stochastic Vs Deterministic Traffic Simulator.
Comparative Study for Its Use Within a Traffic Light Cycles Optimization
Architecture.
