1. Record Nr. UNINA9910485044703321

Titolo	Adaptive and natural computing algorithms : 9th international conference, ICANNGA 2009, Kuopio, Finland, April 23-25, 2009 : revised selected papers / / Mikko Kolehmainen, Pekka Toivanen, Bartlomiej Beliczynski (eds.)
Pubbl/distr/stampa	Berlin ; ; New York, : Springer, c2009
ISBN	3-642-04921-4
Edizione	[1st ed. 2009.]
Descrizione fisica	1 online resource (XVI, 630 p.)
Collana	Lecture notes in computer science, , 0302-9743 ; ; 5495
Classificazione	DAT 708f DAT 717f DAT 718f SS 4800
Altri autori (Persone)	BeliczynskiBartomiej KolehmainenMikko ToivanenPekka
Disciplina	004n/a
Soggetti	Adaptive computing systems Bioinformatics Computer algorithms Machine learning Neural computers Neural networks (Computer science)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Neural Networks -- Automatic Discriminative Lossy Binary Conversion of Redundant Real Training Data Inputs for Simplifying an Input Data Space and Data Representation -- On Tractability of Neural-Network Approximation -- Handling Incomplete Data Using Evolution of Imputation Methods -- Ideas about a Regularized MLP Classifier by Means of Weight Decay Stepping -- Connection Strategies in Associative Memory Models with Spiking and Non-spiking Neurons -- Some Enhancements to Orthonormal Approximation of 2D Functions -- Shortest Common Superstring Problem with Discrete Neural Networks -- A Methodology for Developing Nonlinear Models by Feedforward

Neural Networks -- A Predictive Control Economic Optimiser and Constraint Governor Based on Neural Models -- Computationally Efficient Nonlinear Predictive Control Based on RBF Neural Multi-models -- Parallel Implementations of Recurrent Neural Network Learning -- Growing Competitive Network for Tracking Objects in Video Sequences -- Emission Analysis of a Fluidized Bed Boiler by Using Self-Organizing Maps -- Network Security Using Growing Hierarchical Self-Organizing Maps -- On Document Classification with Self-Organising Maps -- Evolutionary Computation -- A Heuristic Procedure with Guided Reproduction for Constructing Cocyclic Hadamard Matrices -- Tuning of Large-Scale Linguistic Equation (LE) Models with Genetic Algorithms -- Elitistic Evolution: An Efficient Heuristic for Global Optimization -- Solving the Multiple Sequence Alignment Problem Using Prototype Optimization with Evolved Improvement Steps -- Grid-Oriented Scatter Search Algorithm -- Agent-Based Gene Expression Programming for Solving the RCPSP/max Problem -- Feature Selection from Barkhausen Noise Data Using Genetic Algorithms with Cross-Validation -- Time-Dependent Performance Comparison of Evolutionary Algorithms -- Multiobjective Genetic Programming for Nonlinear System Identification -- NEAT in HyperNEAT Substituted with Genetic Programming -- Simulation Studies on a Genetic Algorithm Based Tomographic Reconstruction Using Time-of-Flight Data from Ultrasound Transmission Tomography -- Estimation of Sensor Network Topology Using Ant Colony Optimization -- Learning -- Scalability of Learning Impact on Complex Parameters in Recurrent Neural Networks -- A Hierarchical Classifier with Growing Neural Gas Clustering -- A Generative Model for Self/Non-self Discrimination in Strings -- On the Efficiency of Swap-Based Clustering -- Sum-of-Squares Based Cluster Validity Index and Significance Analysis -- Supporting Scalable Bayesian Networks Using Configurable Discretizer Actuators -- String Distances and Uniformities -- Emergent Future Situation Awareness: A Temporal Probabilistic Reasoning in the Absence of Domain Experts -- Efficient Hold-Out for Subset of Regressors -- Improving Optimistic Exploration in Model-Free Reinforcement Learning -- Improving Visualization, Scalability and Performance of Multiclass Problems with SVM Manifold Learning -- A Cat-Like Robot Real-Time Learning to Run -- Controlling the Experimental Three-Tank System via Support Vector Machines -- Feature-Based Clustering for Electricity Use Time Series Data -- The Effect of Different Forms of Synaptic Plasticity on Pattern Recognition in the Cerebellar Cortex -- Soft Computing -- Fuzzy Inference Systems for Efficient Non-invasive On-Line Two-Phase Flow Regime Identification -- Machine Tuning of Stable Analytical Fuzzy Predictive Controllers -- Crisp Classifiers vs. Fuzzy Classifiers: A Statistical Study -- Efficient Model Predictive Control Algorithm with Fuzzy Approximations of Nonlinear Models -- Dynamic Classifier Systems and Their Applications to Random Forest Ensembles -- A Fuzzy Shape Descriptor and Inference by Fuzzy Relaxation with Application to Description of Bones Contours at Hand Radiographs -- Hough and Fuzzy Hough Transform in Music Tunes Recognition Systems -- Bioinformatics -- Multiple Order Gradient Feature for Macro-Invertebrate Identification Using Support Vector Machines -- Bayesian Dimension Reduction Models for Microarray Data -- Gene Selection for Cancer Classification through Ensemble of Methods -- Applications -- Rules versus Hierarchy: An Application of Fuzzy Set Theory to the Assessment of Spatial Grouping Techniques -- A Novel Signal-Based Approach to Anomaly Detection in IDS Systems -- Extracting Discriminative Features Using Non-negative Matrix Factorization in Financial Distress Data -- Evolutionary Regression

Modeling with Active Learning: An Application to Rainfall Runoff Modeling -- Gene Trajectory Clustering for Learning the Stock Market Sectors -- Accurate Prediction of Financial Distress of Companies with Machine Learning Algorithms -- Approximation Scheduling Algorithms for Solving Multi-objects Movement Synchronization Problem -- Automatic Segmentation of Bone Tissue in X-Ray Hand Images -- Automatic Morphing of Face Images -- A Comparison Study of Strategies for Combining Classifiers from Distributed Data Sources -- Visualizing Time Series State Changes with Prototype Based Clustering.