

1. Record Nr.	UNINA9910808220803321
Titolo	Soft computing systems : design, management and applications // edited by Ajith Abraham, Javier Ruiz-del-Solar, and Mario Koppen
Pubbl/distr/stampa	Amsterdam ; ; Washington, DC, : IOS Tokyo, : Ohmsha, c2002
ISBN	9786610505753 1-60129-461-1 1-280-50575-3 600-00-0559-8
Edizione	[1st ed.]
Descrizione fisica	xiv, 902 p. : ill
Collana	Frontiers in artificial intelligence and applications, , 0922-6389 ; ; v. 87. Knowledge-based intelligent engineering systems
Altri autori (Persone)	AbrahamAjith <1968-> Ruiz-del-SolarJavier KoppenMario <1964->
Disciplina	006.3
Soggetti	Soft computing Hybrid computers
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"HIS '02, the Second International Conference on Hybrid Intelligent Systems, took place in Santiago de Chile, December 1-4, 2002"--Pref.
Nota di bibliografia	Includes bibliographical references and author index.
Nota di contenuto	Cover -- Title page -- Preface -- HIS'02 Technical Co-Sponsors -- HIS'02 Organization -- Contents -- 1. Abstracts of the Plenary Presentations -- 2. Neural Systems -- The Use of a Back Propagation Neural Network to Determine the Load Distribution on a Component -- Performance-guided Neural Network for Rapidly Self-organising Active Network Management -- An Automated Hybrid Reasoning System for Forecasting -- Rule Extraction from Bagged Neural Networks -- Nonlinear Principal Component Analysis to Preserve the Order of Principal Components -- A Neural Network Model of Rule-guided Behavior -- Selection of Models for Time Series Prediction via Meta-Learning -- Spiking Neurons in Clustering of Diabetic Retinopathy Data -- 3. Fuzzy Sets -- A Fuzzy Relatedness Measure for Determining Interestingness of Association Rules -- Factor Analysis with Qualitative Factors as Fuzzy Numbers -- An Imperfect String Matching Experience

using Deformed Fuzzy Automata -- An XML-based Specification of Fuzzy Logic Controllers -- Comparison of Fuzzy Rule Selection Criteria for Classification Problems -- Linguistic Hedges: A Quantifier Based Approach -- 4. Evolutionary Computation -- Analyzing the Founder Effect in Simulated Evolutionary Processes using Gene Expression Programming -- Hybrid Evolutionary Multi-Objective Optimization Algorithms -- A Permutation Based Genetic Algorithm for RNA Secondary Structure Prediction -- Design of Strong Causal Fitness Functions -- Noise and Elitism in Evolutionary Computation -- 5. Machine Learning -- Anticipatory Computing with Autopoietic and (M, R) Systems -- An Efficient Algorithm in Optimal Partition Problem for Trees Induction -- Condition Monitoring, Root Cause Analysis and Decision Support on Urgency of Actions -- Towards a Unique Framework to Describe and Compare Diagnosis Approaches. Experimental Evaluation of the PLA-based Permutation-Scheduling -- A Study of K-Nearest Neighbour as an Imputation Method -- Determining the Degree of Generalization using an Incremental Learning Algorithm -- Towards Landscape Analyses to Inform the Design of Hybrid Local Search for the Multiobjective Quadratic Assignment Problem -- Active Learning using One-class Classification -- Enhancing Real-World Applicability by Providing Confidence-in-Prediction in the XCS Classifier System -- Latent Semantic Indexing Based on Factor Analysis -- Document Oriented Modeling of Cellular Automata -- 6. Support Vector Machines and Kernel Methods -- An Empirical Comparison of Kernel Selection for Support Vector Machines -- Adaptive Support Vector Classifications -- Mercer's Kernel Based Learning for Fault Detection -- Performance Based Feature Identification for Intrusion Detection using Support Vector Machines -- 7. Features and Classification -- A Trainable Classifier via k Nearest Neighbors -- Combining Classifiers with Multimethod Approach -- Feature Extraction by Distance Neural Network in Classification Tasks -- Revealing Feature Interactions in Classification Tasks -- Ensembles in Practice: Predication, Estimation, Multi-Feature and Noisy Data -- 8. Data Mining -- Protoforms of Linguistic Data Summaries: Towards More General Natural-Language-based Data Mining Tools -- Sparse Distributed Memory with Adaptive Threshold -- UniLR: An Automated Fuzzy Legal Reasoner -- Set Approximation Quality Measures in the Variable Precision Rough Set Model -- A Data Preparation Bayesian Approach for a Clustering Genetic Algorithm -- Reconstruction of Conditional Distribution Field based on Empirical Data -- Bi-directional Flow of Information in the Softboard Architecture -- Voice Codification using Self Organizing Maps as Data Mining Tool. Identifying Patterns of Corporate Tax Payment -- Self-organized Data and Image Retrieval as a Consequence of Inter-dynamic Synergistic Relationships in Artificial Ant Colonies -- 9. Agent Architectures -- Designing Not-So-Dull Virtual Dolls -- SADISCO: A Scalable Agent Discovery and Composition Mechanism -- MAYBE - Multi-Agent Yield-Based Engineering : Improve Training in the Emergency Room Chain -- 3D-CG Avatar Motion Design by Means of Interactive Evolutionary Computation -- Alliance Formation with Several Coordinators -- 10. Web Computing -- Balancing Volume, Quality and Freshness in Web Crawling -- Learnable Topic-specific Web Crawler -- A Spatial Dimension for Searching the World Wide Web -- Building Yearbooks with RDF -- A Non-Deterministic versus Deterministic Algorithm for Searching Spatial Configurations -- Parallel Text Query Processing using Composite Inverted Lists -- 11. Interactive Systems -- Human Reasoning in Soft Computing -- A Focus and Constraint-based Genetic Algorithm for Interactive Directed Graph Drawing -- Dialogue Act

Connectionist Detection in a Spoken Dialogue System -- A Trial Method to Create a Natural Interaction in Interactive Genetic Algorithm -- 12. Signal and Image Processing -- Eigenspace-based Face Recognition: A Comparative Study of Different Hybrid Approaches -- Pattern Recognition with Ultrasonic Sensor using Classification Methods -- A Color Pattern Recognition Problem based on the Multiple Classes Random Neural Network Model -- Jigsawing : A Method to Create Virtual Examples in OCR Data -- Model-based Restoration of Short-Exposure Solar Images -- Using a Helper FFN to Represent the Cost Function for Training DRNN's by Gradient Descent -- Scene-based Nonuniformity Correction Method using the Inverse Covariance Form of the Kalman Filter. Adaptive Bias Compensation for Non-Uniformity Correction on Infrared Focal Plane Array Detectors -- Combining Genetic Algorithms and Neural Networks to Build a Signal Pattern Classifier -- Accurate Human Face Extraction using Genetic Algorithm and Subspace Method -- The Evolutionary Learning Rule for System Identification in Adaptive Finite Impulse Filters -- 2D-Histogram Lookup for Low-Contrast Fault Processing -- 13. Industrial Applications -- A Railway Interlocking Safety Verification System based on Abductive Paraconsistent Logic Programming -- Complete Algorithm to Realize CI Model-based Control and Monitoring Strategies on Microcontroller Systems -- Using Genetic Algorithms for Minimizing the Production Costs of Hollow Core Slabs -- Recognizing Malicious Intention in an Intrusion Detection Process -- A Self-Growing Probabilistic Decision-based Neural Network with Applications to Anchor/Speaker Identification -- HyCAR - A Robust Hybrid Control Architecture for Autonomous Robots -- 14. Web and Multimedia Applications -- Clustering Web User Interests using Self Organising Maps -- Web Traffic Mining using a Concurrent Neuro-Fuzzy Approach -- Panoramic View System for Extracting Key Sentences based on Viewpoints and an Application to a Search Engine -- Frequent Flyer Points Calculator: More than just a Table Lookup -- A Large Benchmark Dataset for Web Document Clustering -- Simulating an Information Ecosystem within the WWW -- Author Index -- A -- B -- C -- D -- E -- F -- G -- H -- I -- J -- K -- L -- M -- N -- O -- P -- R -- S -- T -- V -- W -- X -- Y -- Z.

Sommario/riassunto

This volume focuses on research developments on intelligent systems in a hybrid environment and its applications in image processing, Internet modelling and data mining. The contributions presented were accepted for the Second International Conference on Hybrid Intelligent Systems (HIS '02).
