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Altri autori (Persone)	Hernandez AguirreArturo BorjaRaul Monroy ReyesCarlos A (Carlos Alberto)
Disciplina	004n/a
Soggetti	Computer vision Data mining Computer simulation Image processing - Digital techniques Artificial intelligence Pattern recognition systems Computer Vision Data Mining and Knowledge Discovery Computer Modelling Computer Imaging, Vision, Pattern Recognition and Graphics Artificial Intelligence Automated Pattern Recognition
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Talks -- Semantic Management of Heterogeneous Documents -- Logic and Reasoning -- Possibilistic Well-Founded Semantics -- Ontologies, Knowledge Management and Knowledge-Based Systems -- ACO for Solving the Distributed Allocation of a Corporate Semantic Web

-- Implementing PS-Merge Operator -- Uncertainty and Probabilistic Reasoning -- Generating Explanations Based on Markov Decision Processes -- Compiling Multiply Sectioned Bayesian Networks: A Comparative Study -- Cosine Policy Iteration for Solving Infinite-Horizon Markov Decision Processes -- Transformer Diagnosis Using Probabilistic Vibration Models -- Intelligent Aircraft Damage Assessment, Trajectory Planning, and Decision-Making under Uncertainty -- A Scrabble Heuristic Based on Probability That Performs at Championship Level -- Natural Language Processing -- From Semantic Roles to Temporal Information Representation -- Dependency Language Modeling Using KNN and PLSI -- Supervised Recognition of Age-Related Spanish Temporal Phrases -- Using Nearest Neighbor Information to Improve Cross-Language Text Classification -- Ranking Refinement via Relevance Feedback in Geographic Information Retrieval -- Data Mining -- A Complex Networks Approach to Demographic Zonification -- Multiscale Functional Autoregressive Model for Monthly Sardines Catches Forecasting -- Discretization of Time Series Dataset with a Genetic Search -- Mining Social Networks on the Mexican Computer Science Community -- Machine Learning -- Probabilistic Graphical Markov Model Learning: An Adaptive Strategy -- Support Vector Optimization through Hybrids: Heuristics and Math Approach -- Pattern Recognition -- On-Line Signature Verification Based on Genetic Optimization and Neural-Network-Driven Fuzzy Reasoning -- Diagnosis of Cervical Cancer Using the Median M-Type Radial Basis Function (MMRBF) Neural Network -- Quasi-invariant Illumination Recognition for Appearance-Based Models, Taking Advantage of Manifold Information and Non-uniform Sampling -- Computer Vision and Image Processing -- Automatic Camera Localization, Reconstruction and Segmentation of Multi-planar Scenes Using Two Views -- The Nonsampled Contourlet Transform for Enhancement of Microcalcifications in Digital Mammograms -- Denoising Intra-voxel Axon Fiber Orientations by Means of ECQMMF Method -- A Profilometric Approach for 3D Reconstruction Using Fourier and Wavelet Transforms -- Vector Quantization Algorithm Based on Associative Memories -- Robotics -- A Two-Stage Relational Reinforcement Learning with Continuous Actions for Real Service Robots -- People Detection by a Mobile Robot Using Stereo Vision in Dynamic Indoor Environments -- Planning and Scheduling -- SAT Encoding and CSP Reduction for Interconnected Alldiff Constraints -- Phase Transition in the Bandwidth Minimization Problem -- Planning for Conditional Learning Routes -- A New Backtracking Algorithm for Constructing Binary Covering Arrays of Variable Strength -- Pipelining Memetic Algorithms, Constraint Satisfaction, and Local Search for Course Timetabling -- Fuzzy Logic -- Fuzzy Relational Compression Applied on Feature Vectors for Infant Cry Recognition -- Parametric Operations for Digital Hardware Implementation of Fuzzy Systems -- Fuzzy Logic for Combining Particle Swarm Optimization and Genetic Algorithms: Preliminary Results -- Optimization of Type-2 Fuzzy Integration in Modular Neural Networks Using an Evolutionary Method with Applications in Multimodal Biometry -- Neural Networks -- st-Alphabets: On the Feasibility in the Explicit Use of Extended Relational Alphabets in Classifier Systems -- Comparison of Neural Networks and Support Vector Machine Dynamic Models for State Estimation in Semiautogenous Mills -- Using Wolfe's Method in Support Vector Machines Learning Stage -- Direct Adaptive Soft Computing Neural Control of a Continuous Bioprocess via Second Order Learning -- Intelligent Tutoring Systems -- A Kohonen Network for Modeling Students' Learning Styles in Web 2.0 Collaborative Learning Systems --

Teaching-Learning by Means of a Fuzzy-Causal User Model -- Inferring Knowledge from Active Learning Simulators for Physics -- Bioinformatics and Medical Applications -- Leukocyte Recognition Using EM-Algorithm -- An Automaton for Motifs Recognition in DNA Sequences -- Hybrid Intelligent Systems -- A New Method for Optimal Cropping Pattern -- MultiQuenching Annealing Algorithm for Protein Folding Problem -- Outlier Detection with a Hybrid Artificial Intelligence Method -- Wind Speed Forecasting Using a Hybrid Neural-Evolutionary Approach -- Hybridization of Evolutionary Mechanisms for Feature Subset Selection in Unsupervised Learning -- Evolutionary Algorithms -- A Particle Swarm Optimization Method for Multimodal Optimization Based on Electrostatic Interaction -- Ranking Methods for Many-Objective Optimization -- Why Unary Quality Indicators Are Not Inferior to Binary Quality Indicators -- Using Copulas in Estimation of Distribution Algorithms -- Redistricting by Square Cells -- Finding Minimal Addition Chains with a Particle Swarm Optimization Algorithm -- Linear Wind Farm Layout Optimization through Computational Intelligence -- Building Blocks and Search -- An Analysis of Recombination in Some Simple Landscapes -- An Empirical Investigation of How Degree Neutrality Affects GP Search.

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### Sommario/riassunto

The Mexican International Conference on Artificial Intelligence (MICAI), a yearly international conference organized by the Mexican Society for Artificial Intelligence (SMIA), is a major international AI forum and the main event in the academic life of the country's growing AI community. The proceedings of the previous MICAI events were published by Springer in its Lecture Notes in Artificial Intelligence (LNAI) series, vol. 1793, 2313, 2972, 3787, 4293, 4827, and 5317. Since its foundation the conference has been growing in popularity and improving quality. This volume contains the papers presented at the oral sessions of the 8th Mexican International Conference on Artificial Intelligence, MICAI 2009, held November 9-13, 2009, in Guanajuato, Mexico. The conference received for evaluation 215 submissions by 646 authors from 21 countries. This volume contains revised versions of 63 articles, which after thorough and careful revision were selected by the international Program Committee. Thus the acceptance rate was 29.3%. This book is structured into 18 sections, 17 of which correspond to a conference track and are representative of the main current areas of interest for the AI community; the remaining section comprises invited papers. The conference featured excellent keynote lectures by leading AI experts: Patricia Melin, Instituto Tecnológico de Tijuana, Mexico Dieter Hutter, DFKI GmbH, Germany Josef Kittler, Surrey University, UK Ramon Lopez de Mantaras, IIIA-CSIC, Spain Jose Luis Marroquin, CIMAT, Mexico In addition to the oral technical sessions and keynote lectures, the conference program included tutorials, workshops, and a poster session, which were published in separate proceedings volumes.

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