

1. Record Nr.	UNINA9910484509303321
Titolo	Fuzzy Logic and Applications : 5th International Workshop, WILF 2003, Naples, Italy, October 9-11, 2003, Revised Selected Papers // edited by Vito Di Gesù, Francesco Masulli, Alfredo Petrosino
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2006
ISBN	3-540-32683-9
Edizione	[1st ed. 2006.]
Descrizione fisica	1 online resource (X, 342 p.)
Collana	Lecture Notes in Artificial Intelligence, , 2945-9141 ; ; 2955
Altri autori (Persone)	Di GesùV MasulliF (Francesco) PetrosinoAlfredo
Disciplina	511.313
Soggetti	Artificial intelligence Machine theory Computer science Information storage and retrieval systems Database management Computer vision Artificial Intelligence Formal Languages and Automata Theory Theory of Computation Information Storage and Retrieval Database Management Computer Vision
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	Fuzzy Sets and Systems -- Rough-Fuzzy Granular Computing, Case Based Reasoning and Data Mining -- VHDL High Level Modelling and Implementation of Fuzzy Systems -- Some Complexity Results on Fuzzy Description Logics -- An Evolutionary Approach to Ontology-Based User Model Acquisition -- Mathematical Modeling of Passage Dynamic Function -- Bi-monotonic Fuzzy Sets Lead to Optimal Fuzzy Interfaces -- Conversational Agent Model in Intelligent User Interface

-- A Fuzzy Frame-Based Knowledge Representation Formalism --
 Statistical Analysis of the Different Operator Involved in the Fuzzy
 Inference Process -- Fuzzy Control -- Concepts and Fuzzy Models for
 Behavior-Based Robotics -- Mathematical Aspects of Fuzzy Control --
 Piecewise Linear Fuzzy Sliding Mode Control -- Application of Fuzzy
 Logic Controllers for Laser Tracking with Autonomous Robot System --
 Neuro-fuzzy Systems -- Fuzzy Relational Neural Network for Data
 Analysis -- A Neuro-fuzzy System for the Prediction of the Vehicle
 Traffic Flow -- On the Use of Neuro-fuzzy Techniques for Analyzing
 Experimental Surface Electromyographic Data -- Linear Regression
 Model-Guided Clustering for Training RBF Networks for Regression
 Problems -- Fuzzy Decision Theory and Application -- An Iterative
 Algorithm for Fuzzy Quadratic Programming Problems -- A General
 Defuzzification Method for Fuzzy Total Cost in an Inventory Without
 Backorder Case -- Fuzzy Rough Sets and Multiple-Premise Gradual
 Decision Rules -- Soft Computing in Image Processing -- Fuzzy Spatial
 Relationships for Model-Based Pattern Recognition in Images and
 Spatial Reasoning Under Imprecision -- Classification of Digital Terrain
 Models Through Fuzzy Clustering: An Application -- Evolutionary
 Approach to Inverse Planning in Coplanar Radiotherapy -- Soft Pyramid
 Symmetry Transforms -- Image File Compression Using Approximation
 and Fuzzy Logic -- Fuzzy Information Fusion Scheme Used to Segment
 Brain Tumor from MR Images -- Out-of-Core Segmentation by
 Deformable Models -- Rough Set Approach for Classification of Breast
 Cancer Mammogram Images -- Genetic Fourier Descriptor for the
 Detection of Rotational Symmetry -- Fourier Transform Based Column-
 Block and Row-Block Matching Procedure for Document Image
 Mosaicing -- Object Recognition by Recursive Learning of Multiscale
 Trees -- An Integrated Fuzzy Cells-Classifier -- A Neural Network for
 Classification of Chambers Arrangement in Foraminifera -- Fuzzy
 Concepts in Vector Quantization Training -- Some Component Analysis
 Based on Fuzzy Relational Structure -- Fuzzy Technique Based
 Recognition of Handwritten Characters -- Optical Flow Estimation
 Using Genetic Algorithms -- Neural Network Ensemble and Support
 Vector Machine Classifiers: An Application to Remote Sensed Data --
 Combining Neighbourhood-Based and Histogram Similarity Measures
 for the Design of Image Quality Measures -- An Automated Image
 Thresholding Scheme for Highly Contrast-Degraded Images Based on
 α -Order Fuzzy Entropy.

Sommario/riassunto

The present volume contains the contributions delivered at the 5th International Workshop on Fuzzy Logic and Applications (WILF 2003), hosted by the Istituto Italiano Studi Filosofici, Palazzo Serra di Cassano, Naples (Italy) and held on October 9-11, 2003. The volume includes the more recent achievements in the domain of theoretical, experimental and applied fuzzy logic and related techniques. To emphasize the particular connotation of the modern applications of fuzzy logic, special attention has been devoted to the recent trend of integrating and complementing fuzzy logic with rough set theory, neural networks, genetic algorithms and other formal theories and methodologies in order to design flexible and "intelligent" systems, based on the so-called paradigm of soft computing. The capability of these techniques to incorporate imprecision and incomplete information, and to model complex systems, makes them useful tools in many scientific areas. Among these areas, WILF 2003 dedicated a Special Session on "Soft Computing in Image Processing." Image processing has been a major topic in many areas of research and development, particularly in computer vision and pattern recognition. The majority of the methods were based on probabilistic paradigms, such as the well-known

Bayesian paradigm and evidence-based decision-making systems, and just recently soft-computing techniques have gained a relevant role in the leading techniques to tackle image-processing problems. The special session was organized in cooperation with the SCIP group (<http://fuzzy.rug.ac.be/SCIP>).
