1. Record Nr. UNISA996465924303316

Titolo	Progress in Pattern Recognition, Speech and Image Analysis [[electronic resource]] : 8th Iberoamerican Congress on Pattern Recognition, CIARP 2003, Havana, Cuba, November 26-29, 2003, Proceedings / / edited by Alberto Sanfeliu, José Ruiz-Shulcloper
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2003
ISBN	1-280-30796-X 9786610307968 3-540-24586-3
Edizione	[1st ed. 2003.]
Descrizione fisica	1 online resource (XVII, 696 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 2905
Disciplina	006.4
Soggetti	Pattern recognition Artificial intelligence Optical data processing Pattern Recognition Artificial Intelligence Image Processing and 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 at the end of each chapters and index.
Nota di contenuto	Neurons, Dendrites, and Pattern Classification -- Robot Vision for Autonomous Object Learning and Tracking -- Graduated Scale Inspection Using Computer Vision -- Vision System for Subpixel Laser Stripe Profile Extraction with Real Time Operation -- Multi-channel Reconstruction of Video Sequences from Low-Resolution and Compressed Observations -- 3D Rigid Facial Motion Estimation from Disparity Maps -- Robust Techniques in Least Squares-Based Motion Estimation Problems -- Inexact Graph Matching for Facial Feature Segmentation and Recognition in Video Sequences: Results on Face Tracking -- Crater Marking and Classification Using Computer Vision -- Using Optical Flow for Tracking -- Another Paradigm for the Solution of the Correspondence Problem in Motion Analysis --

Improvement of the Fail-Safe Characteristics in Motion Analysis Using Adaptive Technique -- Spatially Adaptive Algorithm for Impulse Noise Removal from Color Images -- Improving Phase-Congruency Based Feature Detection through Automatic Scale-Selection -- Robust Estimation of Roughness Parameter in SAR Amplitude Images -- Two New Scale-Adapted Texture Descriptors for Image Segmentation -- Topological Query in Image Databases -- Reconstructing 3D Objects from Silhouettes with Unknown Viewpoints: The Case of Planar Orthographic Views -- Enforcing a Shape Correspondence between Two Views of a 3D Non-rigid Object -- A Colour Constancy Algorithm Based on the Histogram of Feasible Colour Mappings -- Reconstruction of Surfaces from Cross Sections Using Skeleton Information -- Extension of a New Method for Surface Reconstruction from Cross Sections -- Imposing Integrability in Geometric Shape-from-Shading -- Correcting Radial Lens Distortion Using Image and Point Correspondences -- Characterization of Surfaces with Sonars Using Time of Flight and Triangulation -- Non-speech Sound Feature Extraction Based on Model Identification for Robot Navigation -- Enhancement of Noisy Speech Using Sliding Discrete Cosine Transform -- Integrating High and Low Smoothed LMs in a CSR System -- Selection of Lexical Units for Continuous Speech Recognition of Basque -- Creating a Mexican Spanish Version of the CMU Sphinx-III Speech Recognition System -- Decision Tree-Based Context Dependent Sublexical Units for Continuous Speech Recognition of Basque -- Uniclass and Multiclass Connectionist Classification of Dialogue Acts -- A Technique for Extraction of Diagnostic Data from Cytological Specimens -- Segmentation and Morphometry of Histological Sections Using Deformable Models: A New Tool for Evaluating Testicular Histopathology -- Robust Markers for Blood Vessels Segmentation: A New Algorithm -- Discriminative Power of Lymphoid Cell Features: Factor Analysis Approach -- Retinal Angiography Based Authentication -- Suboptimal Classifier for Dysarthria Assessment -- Approximate Nearest Neighbour Search with the Fukunaga and Narendra Algorithm and Its Application to Chromosome Classification -- Characterization of Viability of Seeds by Using Dynamic Speckles and Difference Histograms -- An Adaptive Enhancer with Modified Signal Averaging Scheme to Detect Ventricular Late Potentials -- A Study on the Recognition of Patterns of Infant Cry for the Identification of Deafness in Just Born Babies with Neural Networks -- Patients Classification by Risk Using Cluster Analysis and Genetic Algorithms -- Mathematical Morphology on MRI for the Determination of Iberian Ham Fat Content -- Automatic Dark Fibres Detection in Wool Tops -- Musical Style Identification Using Grammatical Inference: The Encoding Problem -- New Distance Measures Applied to Marble Classification -- Online Handwritten Signature Verification Using Hidden Markov Models -- Fast Handwritten Recognition Using Continuous Distance Transformation -- Stroke Boundary Analysis for Identification of Drawing Tools -- Solving the Global Localization Problem for Indoor Mobile Robots -- Restricted Decontamination for the Imbalanced Training Sample Problem -- An Entropy Maximization Approach to Optimal Model Selection in Gaussian Mixtures -- Gaussian Mixture Models for Supervised Classification of Remote Sensing Multispectral Images -- Fast Multistage Algorithm for K-NN Classifiers -- Some Improvements in Tree Based Nearest Neighbour Search Algorithms -- Impact of Mixed Metrics on Clustering -- A Comparison between Two Fuzzy Clustering Algorithms for Mixed Features -- Extended Star Clustering Algorithm -- Two New Metrics for Feature Selection in Pattern Recognition -- Conditions of Generating Descriptive Image Algebras by a Set of Image Processing Operations --

Completeness Conditions of a Class of Pattern Recognition Algorithms Based on Image Equivalence -- Typical Segment Descriptors: A New Method for Shape Description and Identification -- A New Approach That Selects a Single Hyperplane from the Optimal Pairwise Linear Classifier -- A Characterization of Discretized Polygonal Convex Regions by Discrete Moments -- Learning probabilistic context-free grammars from treebanks -- Simulated Annealing for Automated Definition of Fuzzy Sets in Human Central Nervous System Modeling -- Automatic Tuning of Fuzzy Partitions in Inductive Reasoning -- Kernel Computation in Morphological Bidirectional Associative Memories -- Improving Still Image Coding by an SOM-Controlled Associative Memory -- A Morphological Methodology for Features Identification in Satellite Images for Semi-automatic Cartographic Updating -- Morphological Neural Networks with Dendrite Computation: A Geometrical Approach -- A Method for the Automatic Summarization of Topic-Based Clusters of Documents -- Improving Prepositional Phrase Attachment Disambiguation Using the Web as Corpus -- Determination of Similarity Threshold in Clustering Problems for Large Data Sets -- Content-Based Retrieval Using Color, Texture, and Shape Information -- Off the Shelf Methods for Robust Portuguese Cadastral Map Analysis -- Simultaneous Segmentation-Recognition-Vectorization of Meaningful Geographical Objects in Geo-Images -- Geomorphometric Analysis of Raster Image Data to detect Terrain Ruggedness and Drainage Density -- Morphological Applications for Maps Construction in Path Planning Tasks -- Compact Mapping in Plane-Parallel Environments Using Stereo Vision -- An Oscillatory Neural Network for Image Segmentation -- Generating Three-Dimensional Neural Cells Based on Bayes Rules and Interpolation with Thin Plate Splines -- A Maximum Entropy Approach to Sampling in EDA – The Single Connected Case.

Sommario/riassunto

CIARP 2003 (8th Iberoamerican Congress on Pattern Recognition) was the eighth event in a series of pioneering congresses on pattern recognition in the Latin American c- munity of countries. This year, however, the forum was extended to include worldwide participation. The event has been held in the past in Mexico, Cuba, Brazil and Por-gal; it took place this year in Havana (Cuba). The aim of the congress was to promote and disseminate ongoing research into mathematical methods for pattern recognition, computer vision, image analysis, and speech recognition, as well as the application of these techniques in such diverse areas as robotics, industry, health, entertainment, space exploration, telecommunications, data mining, document analysis, and natural language processing and recognition to name a few. Moreover it was a forum for scienti?c re- arch, experience exchange, the sharing of new knowledge, and establishing contacts to improve cooperation between research groups in pattern recognition, computer vision and related areas. The congress was organized by the Institute of Cybernetics, Mathematics and P- sics of Cuba (ICIMAF) and the Center for Computing Research (CIC) of the National Polytechnic Institute of Mexico, and was sponsored by the University of La Salle, - xico, the University of Oriente, Cuba, the Polytechnic Institute “Jose ´ A.