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Collana	Image Processing, Computer Vision, Pattern Recognition, and Graphics ; ; 3691
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Contour Tracking Using Modified Canny Edge Maps with Level-of-Detail -- Moment Invariants for Recognizing Symmetric Objects -- A Linear Algorithm for Polygonal Approximations of Thick Curves -- NMF with LogGabor Wavelets for Visualization -- A Study on Fast Iris Image Acquisition Method -- Automatic Human Model Generation -- An Illumination Invariant Face Recognition Approach Using Exemplar-Based Synthesis Technique -- A Phase Correlation Approach to Active Vision -- A Novel Verification Criterion for Distortion-Free Fingerprints -- Nonparametric Fingerprint Deformation Modelling -- Outdoor Image Classification Using Artificial Immune Recognition System (AIRS) with Performance Evaluation by Fuzzy Resource Allocation Mechanism --

Statistical Approach to Boar Semen Head Classification Based on Intracellular Intensity Distribution -- 3D Triangular Mesh Parametrization Using Locally Linear Embedding -- Variational Analysis of Spherical Images -- Iterative Stereo Reconstruction from CCD-Line Scanner Images -- Content-Based Image Retrieval Using Color and Pattern Histogram Adaptive to Block Classification Characteristics -- Commute Times for Graph Spectral Clustering -- A New Approach to Camera Image Indexing -- Discrete Average of Two-Dimensional Shapes -- Coupled Statistical Face Reconstruction -- Recovery of Surface Height Using Polarization from Two Views -- FSVC: A New Fully Scalable Video Codec -- Eigenspaces from Seriated Graphs -- A Predictive Direction Guided Fast Motion Estimation Algorithm -- Toward Polygonalisation of Thick Discrete Arcs -- A Segmentation Algorithm for Noisy Images -- Finding the Number of Clusters for Nonparametric Segmentation -- Optical Flow Diffusion with Robustified Kernels -- Stereo Vision Based Localization of Free Parking Site -- Data Fusion for Photorealistic 3D Models -- Virtualized Real Object Integration and Manipulation in an Augmented Scene -- Automatic Detection of Spiculated Masses Using Fractal Analysis in Digital Mammography -- Hybrid Framework for Medical Image Segmentation -- Evolving Spanning Trees Using the Heat Equation -- Design of Statistical Measures for the Assessment of Image Segmentation Schemes -- Re-lighting and Compensation for Face Images -- Shape from Silhouettes in Discrete Space -- Multiple Feature Domains Information Fusion for Computer-Aided Clinical Electromyography -- Color Transfer Using Motion Estimations and Its Application to Video Compression -- Minimum-Length Polygons of First-Class Simple Cube-Curves -- Combining Character Level Classifier and Probabilistic Lexicons in Handwritten Word Recognition – Comparative Analysis of Methods -- Preprocessing Convex Polygons Using Range Trees for Recognition with Few Finger Probes -- Separable Linear Classifiers for Online Learning in Appearance Based Object Detection -- The Randomized Hough Transform for Spherical Images -- Computerized Extraction of Craniofacial Anatomical Structures for Orthodontic Analysis -- Stability of the Eigenvalues of Graphs -- 3D Modeling of Humans with Skeletons from Uncalibrated Wide Baseline Views -- Magnitude and Phase Spectra of Foot Motion for Gait Recognition -- Advances in Background Updating and Shadow Removing for Motion Detection Algorithms -- Sequential Coordinate-Wise Algorithm for the Non-negative Least Squares Problem -- Recognition of Partially Occluded and Deformed Binary Objects -- InfoBoost for Selecting Discriminative Gabor Features -- Computer Vision Based System for Interactive Cooperation of Multiple Users -- Supervised Texture Detection in Images -- Filter Selection and Identification Similarity Using Clustering Under Varying Illumination -- Method for Automatically Segmenting the Spinal Cord and Canal from 3D CT Images -- Vehicle Area Segmentation Using Grid-Based Feature Values -- Improvement of a Temporal Video Index Produced by an Object Detector -- Multi-camera Person Tracking in a Cluttered Interaction Environment -- Improvement of a Person Labelling Method Using Extracted Knowledge on Costume -- Face Modeling and Adaptive Texture Mapping for Model Based Video Coding -- Multispectral Integration for Segmentation of Chromosome Images -- Bit-Rate Control Algorithm for ROI Enabled Video Coding -- Classification of Moving Humans Using Eigen-Features and Support Vector Machines -- A Queue Based Algorithm for Order Independent Anchored Skeletonisation -- Morphological Refinement of an Image Segmentation -- Pattern Analysis of Movement Behavior of Medaka (*Oryzias latipes*):

A Decision Tree Approach -- Linear Algorithm and Hexagonal Search Based Two-Pass Algorithm for Motion Estimation -- Designing Mathematical Morphology Algorithms on FPGAs: An Application to Image Processing -- Object Detection in Multi-channel and Multi-scale Images Based on the Structural Tensor -- Evaluating Minimum Spanning Tree Based Segmentation Algorithms -- Feature Space Reduction for Face Recognition with Dual Linear Discriminant Analysis -- On the Design of Reliable Graph Matching Techniques for Change Detection -- Extraction of 3D Vascular Tree Skeletons Based on the Analysis of Connected Components Evolution -- Color-Contrast Landmark Detection and Encoding in Outdoor Images -- Global Color Image Features for Discrete Self-localization of an Indoor Vehicle -- Application of Automatic Image Registration in a Segmentation Framework of Pelvic CT Images -- A New Snake Model Robust on Overlap and Bias Problems in Tracking a Moving Target -- Neighborhood Decomposition of 3D Convex Structuring Elements for Morphological Operations -- Domain Knowledge Extension with Pictorially Enriched Ontologies -- Segmentation via Graph-Spectral Methods and Riemannian Geometry -- A Practical Guide to Marker Based and Hybrid Visual Registration for AR Industrial Applications -- Pattern Selective Image Fusion for Multi-focus Image Reconstruction -- Fast Pixel Classification by SVM Using Vector Quantization, Tabu Search and Hybrid Color Space -- CamShift-Based Tracking in Joint Color-Spatial Spaces -- A Robust Detector for Distorted Music Staves -- Illusory Surface Perception Using a Hierarchical Neural Network Model of the Visual Pathways -- A Robust Digital Watermarking Adopting 2D Barcode -- 4D Reconstruction of Coronary Arteries from Monoplane Angiograms -- Temporal Video Indexing Based on Early Vision Using Laguerre Filters -- Comparative Study of 3D Face Acquisition Techniques -- A Fuzzy Hierarchical Attributed Graph Approach for Handwritten Hieroglyphs Description -- Adaptive Fuzzy Text Segmentation in Images with Complex Backgrounds Using Color and Texture -- Neighborhood Sequences and Their Applications in the Digital Image Processing -- Viseme Classification for Talking Head Application -- New Algorithms for Example-Based Super-Resolution -- Determination of Fabric Viscosity Parameters Using Iterative Minimization -- Efficient Off-Line Verification and Identification of Signatures by Multiclass Support Vector Machines -- Motion-Based Hierarchical Active Contour Model for Deformable Object Tracking -- Multi-modal Face Tracking in Multi-camera Environments -- Facial Features Detection by Coefficient Distribution Map -- Region Based Detection of Occluded People for the Tracking in Video Image Sequences -- Virtual Garment Pre-positioning -- Real-Time Topology Modification for Finite Element Models with Haptic Feedback -- A Hierarchical Face Behavior Model for a 3D Face Tracking Without Markers.

Sommario/riassunto

This volume presents the proceedings of the 11th International Conference on Computer Analysis of Images and Patterns (CAIP 2005). This conference - ries started about 20 years ago in Berlin. Initially, the conference served as a forum for meetings between scientists from Western and Eastern-block co- tries. Nowadays, the conference attracts participants from all over the world. The conference gives equal weight to posters and oral presentations, and the selected presentation mode is based on the most appropriate communication medium. The program follows a single-track format, rather than parallel s- sions. Non-overlapping oral and poster sessions ensure that all attendees have the opportunity to interact personally with presenters. As for the numbers, we received a total of 185 submissions. All papers were

reviewed by two to four members of the Program Committee. The ?nal selection was carried out by the Conference Chairs. Out of the 185 papers, 65 were - lected for oral presentation and 43 as posters. CAIP is becoming well recognized internationally, and this year's presentations came from 26 di?erent countries. South Korea proved to be the most active scienti?cally with a total of 16 - cepted papers. At this point, we wish to thank the Program Committee and additional referees for their timely and high-quality reviews. The paper s- mission and review procedure was carried out electronically. We also thank the invited speakers Reinhardt Koch and Thomas Vetter for kindly accepting to present invited papers.
