Record Nr. UNINA9910483715003321 Image Analysis and Recognition: Third International Conference, ICIAR **Titolo** 2006, Póvoa de Varzim, Portugal, September 18-20, 2006. Proceedings, Part I / / edited by Aurélio Campilho, Mohamed Kamel Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa . 2006 **ISBN** 3-540-44893-4 Edizione [1st ed. 2006.] Descrizione fisica 1 online resource (XXVIII, 939 p.) Collana Image Processing, Computer Vision, Pattern Recognition, and Graphics; : 4141 006.4 Disciplina Pattern recognition Soggetti Optical data processing Artificial intelligence Computer graphics **Algorithms** Pattern Recognition Image Processing and Computer Vision Computer Imaging, Vision, Pattern Recognition and Graphics Artificial Intelligence **Computer Graphics** Algorithm Analysis and Problem Complexity 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. Invited Session -- Self-Organizing Trees and Forests: A Powerful Tool Nota di contenuto in Pattern Clustering and Recognition -- On Optimizing Dissimilarity-Based Classification Using Prototype Reduction Schemes -- Image Restoration and Enhancement -- General Adaptive Neighborhood Image Restoration, Enhancement and Segmentation -- Frozen-State Hierarchical Annealing -- Fast and Robust Filtering-Based Image Magnification -- An Efficient Post-processing Using DCT Domain Projections Onto Convex Sets -- Rank-Ordered Differences Statistic Based Switching Vector Filter -- Mathematical Analysis of "Phase

Ramping" for Super-Resolution Magnetic Resonance Imaging -- Blind

Blur Estimation Using Low Rank Approximation of Cepstrum -- An Image Interpolation Scheme for Repetitive Structures -- A Discontinuous Finite Element Method for Image Denoising -- An Edge-Preserving Multigrid-Like Technique for Image Denoising -- Fuzzy Bilateral Filtering for Color Images -- MPEG Postprocessing System Using Edge Signal Variable Filter -- Computational Framework for Family of Order Statistic Filters for Tensor Valued Data -- Gaussian Noise Removal by Color Morphology and Polar Color Models -- Image Segmentation -- A Shape-Based Approach to Robust Image Segmentation -- Novel Statistical Approaches to the Quantitative Combination of Multiple Edge Detectors -- Bio-inspired Motion-Based Object Segmentation -- An Effective and Fast Scene Change Detection Algorithm for MPEG Compressed Videos -- Automatic Segmentation Based on AdaBoost Learning and Graph-Cuts -- Accurate Contour Detection Based on Snakes for Objects with Boundary Concavities --Graph-Based Spatio-temporal Region Extraction -- Performance Evaluation of Image Segmentation -- Improvement of Image Transform Calculation Based on a Weighted Primitive -- Topological Active Nets Optimization Using Genetic Algorithms -- An Evaluation Measure of Image Segmentation Based on Object Centres -- Active Shape Model Based Segmentation and Tracking of Facial Regions in Color Images --Image and Video Processing and Analysis -- On the Adaptive Impulsive Noise Attenuation in Color Images -- A Simple Method for Designing 2D |M|-Channel Near-PR Filter Banks with Linear Phase Property --Fast Hermite Projection Method -- Posterior Sampling of Scientific Images -- Image Denoising Using the Lyapunov Equation from Nonuniform Samples -- New Method for Fast Detection and Removal of Impulsive Noise Using Fuzzy Metrics -- Background Subtraction Framework Based on Local Spatial Distributions -- Morphological Image Interpolation to Magnify Images with Sharp Edges -- Adaptive Kernel Based Tracking Using Mean-Shift -- Real Time Sobel Square Edge Detector for Night Vision Analysis -- A New Video Images Text Localization Approach Based on a Fast Hough Transform -- Video Sequence Matching Using Singular Value Decomposition -- The Papoulis-Gerchberg Algorithm with Unknown Signal Bandwidth --Image and Video Coding and Encryption -- Continuous Evolution of Fractal Transforms and Nonlocal PDE Imaging -- A Fast Algorithm for Macroblock Mode Selection in H.264 Video Coding -- Visual Secret Sharing Scheme: Improving the Contrast of a Recovered Image Via Different Pixel Expansions -- Fast and Efficient Basis Selection Methods for Embedded Wavelet Packet Image Coding -- Fractal Image Coding as Proiections Onto Convex Sets -- DCT-Domain Predictive Coding Method for Video Compression -- Simple Detection Method and Compensation Filter to Remove Corner Outlier Artifacts -- Rate Control Algorithm for High Quality Compression of Static Test Image in Digital TV System -- JPEG2000-Based Resolution- and Rate-Constrained Layered Image Coding -- A Permutation-Based Correlation-Preserving Encryption Method for Digital Videos -- A Fast Scheme for Converting DCT Coefficients to H.264/AVC Integer Transform Coefficients -- A Fast Full Search Algorithm for Motion Estimation Using Priority of Matching Scan -- Using Space-Time Coding for Watermarking Color Images -- Blind PSNR Estimation of Video Sequences, Through Nonuniform Quantization Watermarking -- Pattern Recognition Using Neighborhood Coding -- Image Retrieval and Indexing -- Naming of Image Regions for User-Friendly Image Retrieval -- Shape Retrieval Using Shape Contexts and Cyclic Dynamic Time Warping -- Topological Active Nets for Object-Based Image Retrieval -- Iterative 3-D Pose Correction and Content-Based Image Retrieval for Dorsal Fin

Recognition -- Feature Selection for Retrieval Purposes -- DCT-Domain Image Retrieval Via Block-Edge-Patterns -- Visual Aspect: A Unified Content-Based Collaborative Filtering Model for Visual Document Recommendation -- IntelliSearch: Intelligent Search for Images and Text on the Web -- Automatic Shot-Change Detection Algorithm Based on Visual Rhythm Extraction -- Motion Analysis -- Global Motion Estimation: Feature-Based, Featureless, or Both ?! -- Background Updating with the Use of Intrinsic Curves -- Towards a New Paradigm for Motion Extraction -- Fast Motion Estimation Using Spatio Temporal Filtering -- Optic Flow from Multi-scale Dynamic Anchor Point Attributes -- The Effect of Presmoothing Image Sequences on the Computation of Optical Flow -- Optical Flow Based Frame Interpolation of Ultrasound Images -- An Iterative Multiresolution Scheme for SFM --Occlusion-Based Accurate Silhouettes from Video Streams -- Tracking -- Towards Constrained Optimal 3D Tracking -- A Generic Approach to Object Matching and Tracking -- Image Based Visual Servoing: A New Method for the Estimation of the Image Jacobian in Dynamic Environments -- QP_TR Trust Region Blob Tracking Through Scale-Space with Automatic Selection of Features -- Human Posture Analysis Under Partial Self-occlusion -- Particle Filtering with Dynamic Shape Priors -- The OBSERVER: An Intelligent and Automated Video Surveillance System -- A Novel Spatio-temporal Approach to Handle Occlusions in Vehicle Tracking -- A Robust Particle Filter-Based Face Tracker Using Combination of Color and Geometric Information.

Sommario/riassunto

ICIAR 2006, the International Conference on Image Analysis and Recognition, was the third ICIAR conference, and was held in P´ ovoa de Varzim, Portugal. ICIARisorganizedannually, andalternatesbetweenEuropeandNorthAmerica. ICIAR 2004 was held in Porto, Portugal and ICIAR 2005 in Toronto, Canada. The idea of o?ering these conferences came as a result of discussion between researchers in Portugal and Canada to encourage collaboration and exchange, mainlybetweenthesetwocountries, butalsowiththeopenparticipationofother countries, addressing recent

butalsowiththeopenparticipationofother countries, addressing recent advances in theory, methodology and applications. The response to the call for papers for ICIAR 2006 was higher than the two previous editions. From 389 full papers submitted, 163 were ?nally accepted (71 oral presentations, and 92 posters). The review process was carried out by the Program Committee members and other reviewers; all are experts in various image analysis and recognition areas. Each paper was reviewed by at least two reviewers, and also checked by the conference Co-chairs. The high quality of the papers in these proceedings is attributed ?rst to the authors, and second to the quality of the reviews provided by the experts. We would like to thank the authors for responding to our call, and we wholeheartedly thank the reviewers for their excellent work and for their timely response. It is this collective e?ort that resulted in the strong conference program and high-quality proceedings in your hands.