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Aurélio Campilho · Mohamed Kamel (Eds.)

# Image Analysis and Recognition

11th International Conference, ICIAR 2014  
Vilamoura, Portugal, October 22–24, 2014  
Proceedings, Part I

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## Preface

This is the 11th edition of the ICIAR series of annual conferences offering an opportunity for the participants to interact and present their latest research in theory, methodology, and applications of image analysis and recognition. ICIAR 2014, the International Conference on Image Analysis and Recognition, was held in Vila Moura, Portugal, October 22–24, 2014. ICIAR is organized by AIMI – Association for Image and Machine Intelligence, a not-for-profit organization registered in Ontario, Canada.

For ICIAR 2014, we received a total of 177 full papers from 39 countries. Before the review process all the papers were checked for similarity using a comparison database of scholarly work. The review process was carried out by members of the Program Committee and other reviewers. Each paper was reviewed by at least two reviewers, and checked by the conference chairs. A total of 107 papers were finally accepted and appear in the two volumes of this proceedings. We would like to sincerely thank the authors for responding to our call, and we thank the reviewers for the careful evaluation and feedback provided to the authors. It is this collective effort that resulted in the strong conference program and high-quality proceedings.

Each year we attempt to focus on a specific topic for the keynote speeches and conduct a panel discussion on the topic.

This year, the conference theme was focused on the topic “Sparse Representations for Image Analysis and Recognition.” We were very pleased to include three outstanding keynote talks on this topic: “Optimization Algorithms for Sparse Representations: Some History and Recent Developments” by Mário Figueiredo, Instituto Superior Técnico Portugal; “Morphological Diversities in Astrophysics” by Jean-Luc Starck, CosmoStat Laboratory, France; and “Sparse Stochastic Processes with Application to Biomedical Imaging” by Michael Unser, Ecole Polytechnique Fédérale de Lausanne, Switzerland. The keynote speakers also participated in the panel “Sparse Representation for Image Analysis and Recognition: Trends and Applications.” We would like to express our gratitude to the keynote speakers for accepting our invitation to share their vision and recent advances in their areas of expertise, which are at the core of the topics of the conference.

We would like to thank Khaled Hammouda, the webmaster of the conference, for maintaining the Web pages, interacting with the authors, and preparing the proceedings.

As all conferences, the success of ICIAR 2014 is attributed to the effort and work of many people, including members of the Organizing Committee, staff, and volunteers. We gratefully acknowledge their support and efforts.

We are also grateful to Springer’s editorial staff for supporting this publication in the LNCS series. We also would like to acknowledge the professional service of Viagens Abreu in taking care of the registration process and the special events of the conference.

Finally, we are very pleased to welcome all the participants to ICIAR 2014. For those who were not able to attend, we hope this publication provides a good view into the research presented at the conference, and we look forward to meeting you at the next ICIAR conference.

October 2014

Aurélio Campilho  
Mohamed Kamel

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# Contents – Part I

## Image Representation and Models

|   |    |
|---|----|
| Path Descriptors for Geometric Graph Matching and Registration . . . . .  | 3  |
| <i>Miguel Amável Pinheiro and Jan Kybic</i>   |    |
| A Method to Detect Repeated Unknown Patterns in an Image . . . . .  | 12 |
| <i>Paulo J.S.G. Ferreira and Armando J. Pinho</i>   |    |
| Some “Weberized” $L^2$ -Based Methods of Signal/Image Approximation . . . . .   | 20 |
| <i>Ilona A. Kowalik-Urbaniak, Davide La Torre, Edward R. Vrscay, and Zhou Wang</i>  |    |
| A New Compressor for Measuring Distances among Images . . . . .   | 30 |
| <i>Armando J. Pinho, Diogo Pratas, and Paulo J.S.G. Ferreira</i>  |    |
| Perceptual Evaluation of Demosaicing Artefacts. . . . .   | 38 |
| <i>Tomasz Sergej and Radosław Mantiuk</i>   |    |
| Multiscale Shape Description with Laplacian Profile and Fourier Transform. . . . .  | 46 |
| <i>Evanthia Mavridou, James L. Crowley, and Augustin Lux</i>  |    |
| Structural Similarity-Based Approximation over Orthogonal Bases:<br>Investigating the Use of Individual Component Functions $S_k(\mathbf{x}, \mathbf{y})$ . . . . . | 55 |
| <i>Paul Bendevis and Edward R. Vrscay</i>   |    |
| 2D Thinning Algorithms with Revised Endpixel Preservation . . . . .   | 65 |
| <i>Gábor Németh, Péter Kardos, and Kálmán Palágyi</i>   |    |

## Sparse Representation

|  |    |
|--|----|
| A New Landmark-Independent Tool for Quantifying and Characterizing<br>Morphologic Variation . . . . .              | 75 |
| <i>S.M. Rolfé, L.L. Cox, L.G. Shapiro, and T.C. Cox</i>  |    |
| Low Light Image Enhancement via Sparse Representations. . . . .  | 84 |
| <i>Konstantina Fotiadou, Grigorios Tsagkatakis, and Panagiotis Tsakalides</i>                                      |    |
| Incremental and Multi-feature Tensor Subspace Learning Applied<br>for Background Modeling and Subtraction. . . . . | 94 |
| <i>Andrews Sobral, Christopher G. Baker, Thierry Bouwmans, and El-hadi Zahzah</i>                                  |    |

|   |     |
|---|-----|
| Face Image Super-Resolution Based on Topology ICA and Sparse Representation . . . . .   | 104 |
| <i>Yongtao Liu, Hua Yan, Xiushan Nie, and Zhen Liu</i>  |     |
| Iterative Sparse Coding for Colorization Based Compression . . . . .  | 112 |
| <i>Suk-Ho Lee, Paul Oh, and Moon Gi Kang</i>  |     |
| Noise Modelling in Parallel Magnetic Resonance Imaging:<br>A Variational Approach. . . . .  | 121 |
| <i>Adrián Martín and Emanuele Schiavi</i>   |     |
| <b>Image Restoration and Enhancement</b>  |     |
| An Examination of Several Methods of Hyperspectral Image Denoising:<br>Over Channels, Spectral Functions and Both Domains . . . . . | 131 |
| <i>Daniel Otero, Oleg V. Michailovich, and Edward R. Vrscay</i>   |     |
| Towards a Comprehensive Evaluation of Ultrasound Speckle Reduction . . . .  | 141 |
| <i>Fernando C. Monteiro, José Rufino, and Vasco Cadavez</i>   |     |
| An Evaluation of Potential Functions for Regularized Image Deblurring . . . .   | 150 |
| <i>Buda Bajić, Joakim Lindblad, and Nataša Sladoje</i>  |     |
| Drawing Parrots with Charcoal. . . . .  | 159 |
| <i>A. Alsam and H.J. Rivertz</i>  |     |
| Unconstrained Structural Similarity-Based Optimization . . . . .  | 167 |
| <i>Daniel Otero and Edward R. Vrscay</i>  |     |
| <b>Feature Detection and Image Segmentation</b>   |     |
| Reflectance-Based Segmentation Using Photometric and Illumination<br>Invariants. . . . .  | 179 |
| <i>Jose-Antonio Pérez-Carrasco, Begoña Acha-Piñero,<br/>Carmen Serrano-Gotarredona, and Theo Gevers</i>                             |     |
| Meta-learning for Adaptive Image Segmentation . . . . .   | 187 |
| <i>Aymen Sellaouti, Yasmina Jaâfra, and Atef Hamouda</i>  |     |
| Dynamic Multiple View Geometry with Affine Cameras. . . . .   | 198 |
| <i>Cheng Wan, Yiquan Wu, and Jun Sato</i>   |     |
| Energy Minimization by $\alpha$ -Erosion for Supervised Texture Segmentation . . .  | 207 |
| <i>Karl Skretting and Kjersti Engan</i>   |     |
| ALOE: Augmented Local Operator for Edge Detection. . . . .  | 215 |
| <i>Maria De Marsico, Michele Nappi, and Daniel Riccio</i>   |     |

Multiple Object Detection with Occlusion Using Active Contour Model  
and Fuzzy C-Mean . . . . . 224  
*Sara Memar, Riadh Ksantini, and Boubakeur Boufama*

**Classification and Learning Methods**

Conversational Interaction Recognition Based on Bodily  
and Facial Movement . . . . . 237  
*Jingjing Deng, Xianghua Xie, and Shangming Zhou*

Handwritten Digit Recognition Using SVM Binary Classifiers  
and Unbalanced Decision Trees . . . . . 246  
*Adriano Mendes Gil, Cícero Ferreira Fernandes Costa Filho,  
and Marly Guimarães Fernandes Costa*

A Visual-Based Driver Distraction Recognition and Detection  
Using Random Forest . . . . . 256  
*Amira Ragab, Celine Craye, Mohamed S. Kamel, and Fakhri Karray*

Improving Representation of the Positive Class in Imbalanced  
Multiple-Instance Learning . . . . . 266  
*Carlos Mera, Mauricio Orozco-Alzate, and John Branch*

Restricted Boltzmann Machines for Gender Classification . . . . . 274  
*Jordi Mansanet, Alberto Albiol, Roberto Paredes, Mauricio Villegas,  
and Antonio Albiol*

DropAll: Generalization of Two Convolutional Neural Network  
Regularization Methods . . . . . 282  
*Xavier Frazão and Luís A. Alexandre*

Transfer Learning Using Rotated Image Data to Improve Deep Neural  
Network Performance . . . . . 290  
*Telmo Amaral, Luís M. Silva, Luís A. Alexandre, Chetak Kandaswamy,  
Joaquim Marques de Sá, and Jorge M. Santos*

Catalogue-Based Traffic Sign Asset Management: Towards User’s  
Effort Minimisation. . . . . 301  
*Kelwin Fernandes, Pedro F.B. Silva, Lucian Ciobanu, and Paulo Fonseca*

Scalable Prototype Learning Using GPUs . . . . . 309  
*Tonghua Su, Songze Li, Peijun Ma, Shengchun Deng, and Guangsheng Liang*

Fuzzy Integral Combination of One-Class Classifiers Designed  
for Multi-class Classification . . . . . 320  
*Bilal Hadjadj, Youcef Chibani, and Hassiba Nemmour*

Automatic Classification of Human Body Postures Based on Curvelet Transform . . . . . 329  
*N. Zerrouki and A. Houacine*

QR Code Localization Using Boosted Cascade of Weak Classifiers . . . . . 338  
*Péter Bodnár and László G. Nyúl*

**Document Image Analysis**

Using Scale-Space Anisotropic Smoothing for Text Line Extraction in Historical Documents . . . . . 349  
*Rafi Cohen, Itshak Dinstein, Jihad El-Sana, and Klara Kedem*

Multi-script Identification from Printed Words . . . . . 359  
*Saumya Jetley, Kapil Mehrotra, Atish Vaze, and Swapnil Belhe*

Segmentation-Free Keyword Retrieval in Historical Document Images . . . . . 369  
*Irina Rabaev, Itshak Dinstein, Jihad El-Sana, and Klara Kedem*

Character-Level Alignment Using WFST and LSTM for Post-processing in Multi-script Recognition Systems - A Comparative Study . . . . . 379  
*Mayce Al Azawi, Adnan Ul Hasan, Marcus Liwicki, and Thomas M. Breuel*

Handwritten and Printed Text Separation: Linearity and Regularity Assessment . . . . . 387  
*Sameh Hamrouni, Florence Cloppet, and Nicole Vincent*

Parallel Layer Scanning Based Fast Dot/Dash Line Detection Algorithm for Large Scale Binary Document Images . . . . . 395  
*Chinthaka Premachandra, H. Waruna H. Premachandra, Chandana D. Parape, and Hiroharu Kawanaka*

A Hybrid CRF/HMM Approach for Handwriting Recognition . . . . . 403  
*Gautier Bideault, Luc Mioulet, Clément Chatelain, and Thierry Paquet*

**Image and Video Retrieval**

Exploring the Impact of Inter-query Variability on the Performance of Retrieval Systems . . . . . 413  
*Francesco Brughi, Debora Gil, Llorenç Badiella, Eva Jove Casabella, and Oriol Ramos Terrades*

Relevance Assessment for Visual Video Re-ranking . . . . . 421  
*Javier Aldana-Iuit, Ondřej Chum, and Jiří Matas*



**Remote Sensing**

Delineation of Martian Craters Based on Edge Maps and Dynamic Programming . . . . . 433  
*Jorge S. Marques and Pedro Pina*

Automatic Interpretation of Remotely Sensed Images for Urban Form Assessment . . . . . 441  
*John Mashford, Felix Lipkin, Charlelie Olie, Mailys Cuchennec, and Yong Song*

Image Mosaicing by Camera Pose Estimation Based on Extended Kalman Filter . . . . . 450  
*Alper Yildirim and Mustafa Unel*

**Applications**

A Fast Plain Copy-Move Detection Algorithm Based on Structural Pattern and 2D Rabin-Karp Rolling Hash . . . . . 461  
*Kuznetsov Andrey Vladimirovich and Myasnikov Vladislav Valerievich*

Automatic Annotation of an Ultrasound Corpus for Studying Tongue Movement . . . . . 469  
*Samuel Silva and António Teixeira*

Improving Fire Detection Reliability by a Combination of Videoanalytics. . . . . 477  
*Rosario Di Lascio, Antonio Greco, Alessia Saggese, and Mario Vento*

Automatic Method for Visual Grading of Seed Food Products . . . . . 485  
*Pierre Dubosclard, Stanislas Larnier, Hubert Konik, Ariane Herbulot, and Michel Devy*

Weight Estimation of Pigs Using Top-View Image Processing. . . . . 496  
*Mohammadamin Kashiha, Claudia Bahr, Sanne Ott, Christel P.H. Moons, Theo A. Niewold, Frank O. Ödberg, and Daniel Berckmans*

An Efficient Image Self-recovery and Tamper Detection Using Fragile Watermarking . . . . . 504  
*Sajjad Dadkhah, Azizah Abd Manaf, and Somayeh Sadeghi*

**Author Index** . . . . . 515

## Contents – Part II

### Action, Gestures and Audio-Visual Recognition

|  |    |
|--|----|
| Audio-Visual Emotion Analysis Using Semi-Supervised Temporal Clustering with Constraint Propagation . . . . .    | 3  |
| <i>Rodrigo Araujo and Mohamed S. Kamel</i>   |    |
| Exemplar-Based Human Action Recognition with Template Matching from a Stream of Motion Capture . . . . .         | 12 |
| <i>Daniel Leightley, Baihua Li, Jamie S. McPhee, Moi Hoon Yap, and John Darby</i>                                |    |
| A New Visual Speech Recognition Approach for RGB-D Cameras . . . . .   | 21 |
| <i>Ahmed Rezik, Achraf Ben-Hamadou, and Walid Mahdi</i>  |    |
| 2D Appearance Based Techniques for Tracking the Signer Configuration in Sign Language Video Recordings . . . . . | 29 |
| <i>Ville Viitaniemi, Matti Karppa, and Jorma Laaksonen</i>   |    |
| Computer Aided Hearing Assessment: Detection of Eye Gesture Reactions as a Response to the Sound . . . . .       | 39 |
| <i>A. Fernández, Marcos Ortega, and Manuel G. Penedo</i>   |    |
| Multi-sensor Acceleration-Based Action Recognition . . . . .   | 48 |
| <i>Florian Baumann, Irina Schulz, and Bodo Rosenhahn</i>   |    |
| Incremental Learning of Hand Gestures Based on Submovement Sharing . . . . .                                     | 58 |
| <i>Ryo Kawahata, Yanrui Wang, Atsushi Shimada, Takayoshi Yamashita, and Rin-ichiro Taniguchi</i>                 |    |
| Gait Analysis from Video: Camcorders vs. Kinect . . . . .  | 66 |
| <i>Hoang Anh Nguyen and Jean Meunier</i>   |    |

### Biometrics

|  |    |
|--|----|
| Person Re-identification Using Region Covariance in a Multi-feature Approach . . . . .           | 77 |
| <i>Volker Eiselein, Gleb Sternharz, Tobias Senst, Ivo Keller, and Thomas Sikora</i>              |    |
| Multi-biometric Score-Level Fusion and the Integration of the Neighbors Distance Ratio . . . . . | 85 |
| <i>Naser Damer and Alexander Opel</i>  |    |

Adaptive Haar-Like Features for Head Pose Estimation. . . . . 94  
*Nam-Jun Pyun, Halima Sayah, and Nicole Vincent*

Face and Palmprint Recognition Using Hierarchical Multiscale Adaptive  
 LBP with Directional Statistical Features. . . . . 102  
*Ghada Shams, Mohamed Ismail, Sohier Bassiouny, and Nagia Ghanem*

Multispectral Iris Recognition Using Patch Based Game Theory . . . . . 112  
*Foyzal Ahmad, Kaushik Roy, and Khary Popplewell*

**Medical Image Processing and Analysis**

Periodic Background Pattern Detection and Removal for Cell Tracking . . . . 123  
*Tiago Esteves, Ângela Carvalho, Fernando Jorge Monteiro,  
 and Pedro Quelhas*

Nerve Detection in Ultrasound Images Using Median Gabor Binary Pattern. . . 132  
*Oussama Hadjerci, Adel Hafiane, Pascal Makris, Donatello Conte,  
 Pierre Vieyres, and Alain Delbos*

Automatic Localization of Skin Layers in Reflectance Confocal Microscopy . . . 141  
*Eduardo Somoza, Gabriela Oana Cula, Catherine Correa,  
 and Julie B. Hirsch*

Thermal Signature Using Non-redundant Temporal Local  
 Binary-Based Features. . . . . 151  
*Adnan Al Alwani, Youssef Chahir, and Francois Jouen*

Image Warping in Dermatological Image Hair Removal . . . . . 159  
*Alexandra Nasonova, Andrey Nasonov, Andrey Krylov, Ivan Pechenko,  
 Alexey Umnov, and Natalia Makhneva*

3D Multimodal Visualization of Subdural Electrodes with Cerebellum  
 Removal to Guide Epilepsy Resective Surgery Procedures. . . . . 167  
*Nádia Moreira da Silva, Ricardo Rego, and João Paulo Silva Cunha*

**Medical Image Segmentation**

On the Automatic Normalization of Plaque Regions in Ultrasound Images  
 of the Carotid. . . . . 177  
*José Rouco, Jorge Novo, and Aurélio Campilho*

Automatic Tear Film Segmentation Based on Texture Analysis  
 and Region Growing. . . . . 185  
*Beatriz Remeseiro, Katherine M. Oliver, Eilidh Martin, Alan Tomlinson,  
 Daniel G. Villaverde, and Manuel G. Penedo*

An Improved Segmentation Method for Non-melanoma Skin Lesions  
Using Active Contour Model . . . . . 193  
*Qaisar Abbas, Irene Fondón, Auxiliadora Sarmiento, and M. Emre Celebi*

Statistical-Based Segmentation of Bone Structures via Continuous  
Max-Flow Optimization. . . . . 201  
*Jose-Antonio Pérez-Carrasco, Carmen Serrano-Gotarredona,  
Cristina Suárez-Mejías, and Begoña Acha-Piñero*

A Portable Multi-CPU/Multi-GPU Based Vertebra Localization  
in Sagittal MR Images. . . . . 209  
*Mohamed Amine Larhmam, Sidi Ahmed Mahmoudi, Mohammed Benjelloun,  
Saïd Mahmoudi, and Pierre Manneback*

An Automated Level-Set Approach for Identification of Aortic Valve Borders  
in Short Axis Windows of Transesophageal Echo Sequences (TEE) . . . . . 219  
*César Veiga, Francisco Calvo, Emilio Paredes-Galán, Pablo Pazos,  
Carlos Peña, and Andrés Íñiguez*

Reliable Lung Segmentation Methodology by Including Juxtapleural Nodules . . . 227  
*J. Novo, J. Rouco, A. Mendonça, and Aurélio Campilho*

**Computer-Aided Diagnosis**

Fully Automatic 3D Glioma Extraction in Multi-contrast MRI. . . . . 239  
*Pavel Dvorak and Karel Bartusek*

Grading Cancer from Liver Histology Images Using Inter and Intra Region  
Spatial Relations. . . . . 247  
*Mickaël Garnier, Maya Alsheh Ali, Johanne Seguin, Nathalie Mignet,  
Thomas Hurtut, and Laurent Wendling*

eFis: A Fuzzy Inference Method for Predicting Malignancy of Small  
Pulmonary Nodules. . . . . 255  
*Aydn Kaya and Ahmet Burak Can*

Degradation Adaptive Texture Classification: A Case Study in Celiac  
Disease Diagnosis Brings New Insight . . . . . 263  
*Michael Gadermayr, Andreas Uhl, and Andreas Vécsei*

**Retinal Image Analysis**

Optic Disk Localization for Gray-Scale Retinal Images  
Based on Patch Filtering . . . . . 277  
*F. Sattar, Aurélio Campilho, and M. Kamel*

|  |     |
|--|-----|
| Automatic Optic Disc Detection in Retinal Fundus Images<br>Based on Geometric Features . . . . .                       | 285 |
| <i>Isabel N. Figueiredo and Sunil Kumar</i>  |     |
| Optic Nerve Head Detection via Group Correlations in Multi-Orientation<br>Transforms. . . . .                          | 293 |
| <i>Erik Bekkers, Remco Duits, and Bart ter Haar Romeny</i>   |     |
| A Robust Algorithm for Optic Disc Segmentation from Colored<br>Fundus Images . . . . .                                 | 303 |
| <i>Anam Usman, Sarmad Abbas Khitran, M. Usman Akram,<br/>and Yasser Nadeem</i>   |     |
| Coupled Parallel Snakes for Segmenting Healthy and Pathological Retinal<br>Arteries in Adaptive Optics Images. . . . . | 311 |
| <i>Nicolas Lermé, Florence Rossant, Isabelle Bloch, Michel Paques,<br/>and Edouard Koch</i>                            |     |
| Automatic Arteriovenous Nicking Identification by Color Fundus Images<br>Analysis . . . . .                            | 321 |
| <i>Carla Pereira, Diana Veiga, Luís Gonçalves, and Manuel Ferreira</i>   |     |
| Detection of Hemorrhages in Colored Fundus Images<br>Using Non Uniform Illumination Estimation . . . . .               | 329 |
| <i>M. Usman Akram, Sarmad Abbas Khitran, Anam Usman,<br/>and Ubaid ullah Yasin</i>                                     |     |
| Automatic Robust Segmentation of Retinal Layers in OCT Images<br>with Refinement Stages. . . . .                       | 337 |
| <i>Ana González-López, Marcos Ortega, Manuel G. Penedo,<br/>and Pablo Charlón</i>                                      |     |
| <b>3D Imaging</b>  |     |
| Accurate Multi-View Stereo 3D Reconstruction for Cost-Effective<br>Plant Phenotyping. . . . .                          | 349 |
| <i>Lu Lou, Yonghuai Liu, Jiwan Han, and John H. Doonan</i>   |     |
| Truncated Signed Distance Function: Experiments on Voxel Size. . . . .   | 357 |
| <i>Diana Werner, Ayoub Al-Hamadi, and Philipp Werner</i>   |     |
| Human Activity Analysis in a 3D Bird’s-eye View. . . . .   | 365 |
| <i>Gang Hu, Derek Reilly, Ben Swinden, and Qigang Gao</i>  |     |
| 3D Spatial Layout Propagation in a Video Sequence. . . . .   | 374 |
| <i>Alejandro Rituerto, Roberto Manduchi, Ana C. Murillo, and J.J. Guerrero</i>   |     |

SASCr3: A Real Time Hardware Coprocessor for Stereo Correspondence . . . 383  
*Luca Puglia, Mario Vigliar, and Giancarlo Raiconi*

**Motion Analysis and Tracking**

Adaptive Feature Selection for Object Tracking with Particle Filter . . . . . 395  
*Darshan Venkatrayappa, Désiré Sidibé, Fabrice Meriaudeau,  
and Philippe Montesinos*

Exploiting Color Constancy for Robust Tracking Under Non-uniform  
Illumination . . . . . 403  
*Sinan Mutlu, Samuel Rota Bulò, and Oswald Lanz*

Wavelet Subspace Analysis of Intraoperative Thermal Imaging  
for Motion Filtering . . . . . 411  
*Nico Hoffmann, Julia Hollmach, Christian Schnabel, Yordan Radev,  
Matthias Kirsch, Uwe Petersohn, Edmund Koch, and Gerald Steiner*

A Spatio-temporal Approach for Multiple Object Detection in Videos  
Using Graphs and Probability Maps . . . . . 421  
*Henrique Morimitsu, Roberto M. Cesar, and Isabelle Bloch*

**Robot Vision**

Adopting Feature-Based Visual Odometry for Resource-Constrained  
Mobile Devices . . . . . 431  
*Michał Fularz, Michał Nowicki, and Piotr Skrzypczyński*

Strategy for Folding Clothing on the Basis of Deformable Models . . . . . 442  
*Yasuyo Kita, Fumio Kanehiro, Toshio Ueshiba, and Nobuyuki Kita*

Multiple Camera Approach for SLAM Based Ultrasonic Tank Roof Inspection . . . 453  
*Christian Freye, Christian Bendicks, Erik Lilienblum,  
and Ayoub Al-Hamadi*

On Tracking and Matching in Vision Based Navigation . . . . . 461  
*Adam Schmidt, Marek Kraft, and Michał Fularz*

Biologically Inspired Vision for Indoor Robot Navigation . . . . . 469  
*M. Saleiro, K. Terzić, D. Lobato, J.M.F. Rodrigues, and J.M.H. du Buf*

**Author Index** . . . . . 479