

Contents

Part I Theory and Methods

A Two-Part Approach to Face Recognition: Generalized Hough Transform and Image Descriptors	3
Marian Moise, Xue Dong Yang and Richard Dosselmann	
Improved Boosting Performance by Explicit Handling of Ambiguous Positive Examples	17
Miroslav Kobetski and Josephine Sullivan	
Discriminative Dimensionality Reduction for the Visualization of Classifiers	39
Andrej Gisbrecht, Alexander Schulz and Barbara Hammer	
Online Unsupervised Neural-Gas Learning Method for Infinite Data Streams	57
Mohamed-Rafik Bouguelia, Yolande Belaïd and Abdel Belaïd	
The Path Kernel: A Novel Kernel for Sequential Data	71
Andrea Baisero, Florian T. Pokorny, Danica Kragic and Carl Henrik Ek	
A MAP Approach to Evidence Accumulation Clustering	85
André Lourenço, Samuel Rota Bulò, Nicola Rebagliati, Ana Fred, Mário Figueiredo and Marcello Pelillo	
Feature Discretization with Relevance and Mutual Information Criteria	101
Artur J. Ferreira and Mário A.T. Figueiredo	

Multiclass Semi-supervised Learning on Graphs Using Ginzburg-Landau Functional Minimization	119
Cristina Garcia-Cardona, Arjuna Flenner and Allon G. Percus	
Probabilistic Discriminative Dimensionality Reduction for Pose-Based Action Recognition	137
Valsamis Ntouskos, Panagiotis Papadakis and Fiora Pirri	
Graph Cut Based Segmentation of Predefined Shapes: Applications to Biological Imaging.	153
Emmanuel Soubies, Pierre Weiss and Xavier Descombes	
Artificial Neural Network Modeling of Relative Humidity and Air Temperature Spatial and Temporal Distributions Over Complex Terrains	171
Kostas Philippopoulos, Despina Deligiorgi and Georgios Kouroupetroglou	
 Part II Applications	
Beyond SIFT for Image Categorization by Bag-of-Scenes Analysis.	191
Sébastien Paris, Xanadu Halkias and Hervé Glotin	
Unsupervised Learning of Semantics of Object Detections for Scene Categorization	209
Grégoire Mesnil, Salah Rifai, Antoine Bordes, Xavier Glorot, Yoshua Bengio and Pascal Vincent	
Supervised Learning of Anatomical Structures Using Demographic and Anthropometric Information	225
Yoshito Otake, Catherine M. Carneal, Blake C. Lucas, Gaurav Thawait, John A. Carrino, Brian D. Corner, Marina G. Carboni, Barry S. DeCristofano, Michael A. Maffeo, Andrew C. Merkle and Mehran Armand	
Wikifying Novel Words to Mixtures of Wikipedia Senses by Structured Sparse Coding	241
Balázs Pintér, Gyula Vörös, Zoltán Szabó and András Lőrincz	
Measuring Linearity of Planar Curves	257
Joviša Žunić, Jovanka Pantović and Paul L. Rosin	

**Video Segmentation Framework Based on Multi-kernel Representations
and Feature Relevance Analysis for Object Classification 273**
S. Molina-Giraldo, J. Carvajal-González, A.M. Álvarez-Meza
and G. Castellanos-Domínguez

Quality-Based Super Resolution for Degraded Iris Recognition 285
Nadia Othman, Nesma Houmani and Bernadette Dorizzi

**Generic Biometry Algorithm Based on Signal Morphology
Information: Application in the Electrocardiogram Signal 301**
Tiago Araújo, Neuza Nunes, Hugo Gamboa and Ana Fred

Author Index 311

Pattern Recognition Applications and Methods
International Conference, ICPRAM 2013 Barcelona,
Spain, February 15-18, 2013 Revised Selected Papers
Fred, A.; De Marsico, M. (Eds.)
2015, XV, 312 p. 124 illus., 70 illus. in color., Softcover
ISBN: 978-3-319-12609-8