

Contents

Actions and Behaviours

Action Recognition by Pairwise Proximity Function Support Vector Machines with Dynamic Time Warping Kernels	3
<i>Mohammad Ali Bagheri, Qigang Gao, and Sergio Escalera</i>	
An Agent-Based Architecture for Sensor Data Collection and Reasoning in Smart Home Environments for Independent Living	15
<i>Thomas Reichherzer, Steven Satterfield, Joseph Belitsos, Janusz Chudzynski, and Lamar Watson</i>	
Biometric Authentication by Keystroke Dynamics for Remote Evaluation with One-Class Classification	21
<i>Chuan Chang, Thierry Eude, and Luis Eduardo Obando Carbajal</i>	
Fishing Activity Detection from AIS Data Using Autoencoders	33
<i>Xiang Jiang, Daniel L. Silver, Baifan Hu, Erico N. de Souza, and Stan Matwin</i>	
Simulating the Bubble Net Hunting Behaviour of Humpback Whales: The BNH-Whale Algorithm	40
<i>Stacey Hala, Howard J. Hamilton, and Paolo Domenici</i>	
Gaussian Neuron in Deep Belief Network for Sentiment Prediction	46
<i>Yong Jin, Donglei Du, and Harry Zhang</i>	
Grounding Social Interaction with Affective Intelligence	52
<i>Joshua D.A. Jung, Jesse Hoey, Jonathan H. Morgan, Tobias Schröder, and Ingo Wolf</i>	
The Mismeasure of Machines	58
<i>Eric Neufeld and Sonje Finnestad</i>	
Uncovering Hidden Sentiment in Meetings	64
<i>Gabriel Murray</i>	
Fuzzy Computational Model for Emotions Originated in Workplace Events . . .	73
<i>Ahmad Soleimani and Ziad Kobti</i>	

Audio and Visual Recognition

Tolerance-Based Approach to Audio Signal Classification	83
<i>Sheela Ramanna and Ashmeet Singh</i>	
A Novel Dataset for Real-Life Evaluation of Facial Expression Recognition Methodologies	89
<i>Muhammad Hameed Siddiqi, Maqbool Ali, Muhammad Idris, Oresti Banos, Sungyoung Lee, and Hyunseung Choo</i>	
Visual Perception Similarities to Improve the Quality of User Cold Start Recommendations	96
<i>Cricia Z. Felício, Claudianne M.M. de Almeida, Guilherme Alves, Fabíola S.F. Pereira, Klérisson V.R. Paixão, and Sandra de Amo</i>	
Object-Based Representation for Scene Classification	102
<i>Xuhui Luo and Jinhua Xu</i>	
Salient Object Detection in Noisy Images.	109
<i>Nitin Kumar, Maheep Singh, M.C. Govil, E.S. Pilli, and Ajay Jaiswal</i>	
An Approach to Improving Single Sample Face Recognition Using High Confident Tracking Trajectories	115
<i>M. Ali Akber Dewan, Dan Qiao, Fuhua Lin, Dunwei Wen, and Kinshuk</i>	
Neural Network-POMDP-Based Traffic Sign Classification Under Weather Conditions	122
<i>Shervin Shahryari and Cameron Hamilton</i>	

Natural Language Processing

Poetry Chronological Classification: Hafez	131
<i>Arya Rahgozar and Diana Inkpen</i>	
<i>f</i> : Phrase Relatedness Function Using Overlapping Bi-gram Context	137
<i>Md. Rashadul Hasan Rakib, Aminul Islam, and Evangelos Milios</i>	
Harnessing Open Information Extraction for Entity Classification in a French Corpus	150
<i>Fabrizio Gotti and Philippe Langlais</i>	
A Novel Genetic Algorithm for the Word Sense Disambiguation Problem . . .	162
<i>Wojdan Alsaedan and Mohamed El Bachir Menai</i>	
Mining Biomedical Literature: An Open Source and Modular Approach	168
<i>Hayda Almeida, Ludovic Jean-Louis, and Marie-Jean Meurs</i>	

Word Normalization Using Phonetic Signatures 180
Vincent Jahjah, Richard Khoury, and Luc Lamontagne

Forecasting Canadian Elections Using Twitter. 186
Kenton White

Time-Sensitive Topic-Based Communities on Twitter 192
*Hossein Fani, Fattane Zarrinkalam, Ebrahim Bagheri,
and Weichang Du*

Reasoning and Learning

On Tree Structures Used by Simple Propagation 207
*Anders L. Madsen, Cory J. Butz, Jhonatan S. Oliveira,
and André E. dos Santos*

A Simple Method for Testing Independencies in Bayesian Networks. 213
*Cory J. Butz, André E. dos Santos, Jhonatan S. Oliveira,
and Christophe Gonzales*

Flexible Approximators for Approximating Fixpoint Theory. 224
*Fangfang Liu, Yi Bi, Md. Solimul Chowdhury, Jia-Huai You,
and Zhiyong Feng*

Learning Statistically Significant Contrast Sets 237
Mohomed Shazan Mohamed Jabbar and Osmar R. Zaïane

A Connection Calculus for the Description Logic *ALC* 243
Fred Freitas and Jens Otten

Representation, Reasoning, and Learning for a Relational Influence
Diagram Applied to a Real-Time Geological Domain 257
Matthew Dirks, Andrew Csinger, Andrew Bamber, and David Poole

Nearly Counterfactual Revision. 263
Aaron Hunter

Improving Conversation Engagement Through Data-Driven Agent
Behavior Modification 270
Michael Procter, Fuhua Lin, and Robert Heller

Active Recruitment Mechanisms for Heterogeneous Robot Teams
in Dangerous Environments 276
Geoff Nagy and John Anderson

Streams and Distributed Computing

Compression of General Bayesian Net CPTs 285
Yang Xiang and Qian Jiang

Sampling Graphical Networks via Conditional Independence Coupling
of Markov Chains 298
Guichong Li

Threaded Ensembles of Supervised and Unsupervised Neural Networks
for Stream Learning 304
Yue Dong and Nathalie Japkowicz

A Density-Grid Based Clustering Algorithm on Data Stream Using
Resilient Distributed Datasets 316
Yuan Zhang and Jiongmin Zhang

Distributed Gaussian Mixture Model Summarization Using the MapReduce
Framework 323
*Arina Esmailpour, Elnaz Bigdeli, Fatemeh Cheraghchi, Bijan Raahemi,
and Behrouz H. Far*

Erratum to: Advances in Artificial Intelligence E1
Richard Khoury and Christopher Drummond

Author Index 337



<http://www.springer.com/978-3-319-34110-1>

Advances in Artificial Intelligence
29th Canadian Conference on Artificial Intelligence,
Canadian AI 2016, Victoria, BC, Canada, May 31 - June
3, 2016. Proceedings
Khoury, R.; Drummond, C. (Eds.)
2016, XXIV, 338 p. 85 illus., Softcover
ISBN: 978-3-319-34110-1