

Table of Contents

Regular Contributions

Active Media and Ubiquitous Learning Foundations

A Semi-supervised Learning Algorithm for Web Information Extraction with Tolerance Rough Sets	1
<i>Cenker Sengoz and Sheela Ramanna</i>	
Identifying Influential Nodes in Complex Networks: A Multiple Attributes Fusion Method	11
<i>Lu Zhong, Chao Gao, Zili Zhang, Ning Shi, and Jiajin Huang</i>	
Local Regression Transfer Learning for Users' Personality Prediction . . .	23
<i>Zengda Guan, Dong Nie, Bibo Hao, Shuotian Bai, and Tingshao Zhu</i>	
Graph Clustering Using Mutual K-Nearest Neighbors	35
<i>Divya Sardana and Raj Bhatnagar</i>	
How Variability in Individual Patterns of Behavior Changes the Structural Properties of Networks	49
<i>Somayeh Koohborfardhaghighi and Jörn Altmann</i>	

Big Data Management and Mining for Active Media

A Scalable Boosting Learner for Multi-class Classification Using Adaptive Sampling	61
<i>Jianhua Chen</i>	
Scaling of Complex Calculations over Big Data-Sets	73
<i>Marek Grzegorowski</i>	
Music Data Processing and Mining in Large Databases for Active Media	85
<i>Piotr Hoffmann and Bożena Kostek</i>	
Mining False Information on Twitter for a Major Disaster Situation	96
<i>Keita Nabeshima, Junta Mizuno, Naoaki Okazaki, and Kentaro Inui</i>	
Finding Cyclic Patterns on Sequential Data	110
<i>António Barreto and Cláudia Antunes</i>	
Exploring Temporal Dependencies to Perform Automatic Prognosis	122
<i>Daniel Cardoso and Cláudia Antunes</i>	

Active Media Engineering

Ryry: A Real-Time Score-Following Automatic Accompaniment Playback System Capable of Real Performances with Errors, Repeats and Jumps	134
<i>Shinji Sako, Ryuichi Yamamoto, and Tadashi Kitamura</i>	
Towards Modular, Notification-Centric and Ambient Mobile Communication: User Study Supporting a New Interaction Model for Mobile Computing	146
<i>Jonas Elslander and Katsumi Tanaka</i>	
Body Posture Recognition as a Discovery Problem: A Semantic-Based Framework	160
<i>Michele Ruta, Floriano Scioscia, Maria di Summa, Saverio Ieva, Eugenio Di Sciascio, and Marco Sacco</i>	
Literal Node Matching Based on Image Features toward Linked Data Integration	174
<i>Takahiro Kawamura, Shinichi Nagano, and Akihiko Ohsuga</i>	
Audio Features in Music Information Retrieval	187
<i>Daniel Grzywczak and Grzegorz Gwardys</i>	
Model of Auditory Filters and MPEG-7 Descriptors in Sound Recognition	200
<i>Aneta Świercz and Jan Żera</i>	

Security and Privacy in Ubiquitous Environment

A Scheme for Robust Biometric Watermarking in Web Databases for Ownership Proof with Identification	212
<i>Vidhi Khanduja, Shampa Chakraverty, Om Prakash Verma, and Neha Singh</i>	
An Intelligent Multi-Agent Based Detection Framework for Classification of Android Malware	226
<i>Mohammed Alam and Son Thanh Vuong</i>	
Outlier Analysis Using Lattice of Contiguous Subspaces	238
<i>Vineet Joshi and Raj Bhatnagar</i>	
eSelect: Effective Subspace Selection for Detection of Anomalies	251
<i>Vineet Joshi and Raj Bhatnagar</i>	

Social Networks and Social Media

Active Recommendation of Tourist Attractions Based on Visitors Interests and Semantic Relatedness	263
<i>Yi Zeng, Tielin Zhang, and Hongwei Hao</i>	
Twitter Sentiment Polarity Analysis: A Novel Approach for Improving the Automated Labeling in a Text Corpora	274
<i>Pablo A. Tapia and Juan D. Velásquez</i>	
Empirical Study of Conversational Community Using Linguistic Expression and Profile Information	286
<i>Junki Marui, Nozomi Nori, Takeshi Sakaki, and Junichiro Mori</i>	
Multi Agent System Based Interface for Natural Disaster	299
<i>Zahra Sharmeen, Ana Maria Martinez-Enriquez, Muhammad Aslam, Afraz Zahra Syed, and Talha Waheed</i>	
An Unsupervised Approach to Identify Location Based on the Content of User's Tweet History	311
<i>Satya Katragadda, Miao Jin, and Vijay Raghavan</i>	
Sensing <i>Subjective Well-Being</i> from Social Media	324
<i>Bibo Hao, Lin Li, Rui Gao, Ang Li, and Tingshao Zhu</i>	

Special Sessions

Human Aspects in Cyber-Physical Systems

Detecting Stay Areas from a User's Mobile Phone Data for Urban Computing	336
<i>Hui Wang, Ning Zhong, Zhisheng Huang, Jiajin Huang, Erzhong Zhou, and Runqiang Du</i>	
Towards Robust Framework for On-line Human Activity Reporting Using Accelerometer Readings	347
<i>Michał Meina, Bartosz Celmer, and Krzysztof Rykaczewski</i>	
Privacy-Preserving Emotion Detection for Crowd Management	359
<i>Zeki Erkin, Jie Li, Arnold P.O.S. Vermeeren, and Huib de Ridder</i>	
Cellular Automaton Evacuation Model Coupled with a Spatial Game . . .	371
<i>Anton von Schantz and Harri Ehtamo</i>	

Facial Image Analysis with Applications

Shape from Motion Revisited	383
<i>Władysław Skarbek</i>	

Using Kinect for Facial Expression Recognition under Varying Poses and Illumination	395
<i>Filip Malawski, Bogdan Kwolek, and Shinji Sako</i>	
High Accuracy Head Pose Tracking Survey	407
<i>Błażej Czupryński and Adam Strupczewski</i>	
Facial Expression Data Constructed with Kinect and Their Clustering Stability	421
<i>Angdy Erna, Linli Yu, Kaikai Zhao, Wei Chen, and Einoshin Suzuki</i>	
Eye-Gaze Tracking-Based Telepresence System for Videoconferencing ...	432
<i>Bartosz Kunka, Adam Korzeniewski, Bożena Kostek, and Andrzej Czyżewski</i>	

Workshops

Human Aspects in Ambient Intelligence

Using Process-Oriented Interfaces for Solving the Automation Paradox in Highly Automated Navy Vessels	442
<i>Jurriaan van Diggelen, Wilfried Post, Marleen Rakhorst, Rinus Plasmeijer, and Wessel van Staal</i>	
Multi-agent Solution for Adaptive Data Analysis in Sensor Networks at the Intelligent Hospital Ward	453
<i>Anton Ivaschenko and Anton Minaev</i>	
The Challenges behind Independent Living Support Systems	464
<i>Giampaolo Bella, Pekka Jäppinen, and Jussi Laakkonen</i>	
Exploring Patterns as a Framework for Embedding Consent Mechanisms in Human-Agent Collectives	475
<i>Stuart Moran, Ewa Luger, and Tom Rodden</i>	
Increasing Physical and Social Activity through Virtual Coaching in an Ambient Environment	487
<i>Arjen Brandenburgh, Ward van Breda, Wim van der Ham, Michel Klein, Lisette Moeskops, and Peter Roelofsma</i>	
Enhancing Communication through Distributed Mixed Reality.....	501
<i>Divesh Lala, Christian Nitschke, and Toyooki Nishida</i>	
A New Graphical Representation of the Chatterbots' Knowledge Base	513
<i>Maria das Graças Bruno Marietto, Rafael Varago de Aguiar, Wagner Tanaka Botelho, and Robson dos Santos França</i>	

Sensing, Understanding, and Modeling for Smart City

Adaptive System for Intelligent Traffic Management in Smart Cities	525
<i>Pawel Gora and Piotr Wasilewski</i>	
Implementing a Holistic Approach for the Smart City	537
<i>Roberto Requena, Antonio Agudo, Alba Baron, Maria Campos, Carlos Guijarro, Jose Puche, David Villa, Felix Villanueva, and Juan Carlos Lopez</i>	
Elimination of Moving Shadow Based on Vibe and Chromaticity from Surveillance Videos	549
<i>Huaxiang Zhao, Min Wook Kang, Kyoung Yeon Kim, and Yoo-Sung Kim</i>	
A Resemblance Based Approach for Recognition of Risks at a Fire Ground	559
<i>Lukasz Sosnowski, Andrzej Pietruszka, Adam Krasuski, and Andrzej Janusz</i>	
Author Index	571