Contents

Part I Images and Videos Virtual and Augmented Reality

Building Knowledge for the Purpose of Lip Speech Identification .......................... 3
Andrzej Czyżewski, Bożena Kostek, Marcin Szykulski
and Tomasz E. Ciszewski

PNG as Fast Transmission Format for 3D Computer Graphics
in the Web .......................................................... 15
Daniel Dworak and Maria Pietruszka

An Asymmetric Approach to Signature Matching ................................. 27
Tatiana Jaworska

Automatic Playing Field Detection and Dominant Color
Extraction in Sports Video Shots of Different View Types ................. 39
Kazimierz Choroś

Multi-label Classification with Label Correlations of Multimedia
Datasets ............................................................... 49
Kinga Glinka and Danuta Zakrzewska

Implementing Statistical Machine Translation into Mobile
Augmented Reality Systems ........................................... 61
Krzysztof Wołk, Agnieszka Wołk and Krzysztof Marasek

The Use of the Universal Quality Index for User Recognition
Based on Fingerprint Analysis ..................................... 75
Jakub Peksinski, Grzegorz Mikolajczak and Janusz Kowalski

A Compound Moving Average Bidirectional Texture Function
Model ................................................................. 89
Michal Haindl and Michal Havlíček
Part II Voice Interactions in Multimedia Systems

Multiple Information Communication in Voice-Based Interaction ........ 101
Muhammad Abu ul Fazal and M. Shuaib Karim

Separability Assessment of Selected Types of Vehicle-Associated
Noise .......................................................... 113
Adam Kurowski, Karolina Marciniuk and Bożena Kostek

Popular Brain Computer Interfaces for Game Mechanics Control ...... 123
Dominik Szajerman, Michał Warycha, Arkadiusz Antonik
and Adam Wojciechowski

Pervasive System for Determining the Safe Region Among
Obstacles: Mobile Doctor on the Road Case Study ...................... 135
Hanen Faiez and Jalel Akaichi

Part III Tools and Applications

An Effective Collaborative Filtering Based Method for Movie
Recommendation ............................................... 149
Rafał Palak and Ngoc Thanh Nguyen

A Linux Kernel Implementation of the Traffic Flow Description
Option .......................................................... 161
Robert R. Chodorek and Agnieszka Chodorek

The Quality of Internet LTE Connections in Wroclaw .................... 171
Jerzy Kisilewicz

SelfAid Network—a P2P Matchmaking Service ......................... 183
Michał Boron, Jerzy Brzeziński and Anna Kobusińska

Ant Colony Optimization in Hadoop Ecosystem ......................... 193
Marek Kopel

Measuring Efficiency of Ant Colony Communities ...................... 203
Andrzej Siemiński

Detection of Security Incidents in a Context of Unwelcome
or Dangerous Activity of Web Robots ................................ 215
Marcin Jerzy Orzel and Grzegorz Kołaczek

Stereoscopic 3D Graph Visualization for Assisted Data
Exploration and Discovery .................................... 227
Michał Turek, Dariusz Pałka and Marek Zachara
Part IV Natural Language in Information Systems

Semi-automatic and Human-Aided Translation Evaluation Metric (HMEANT) for Polish Language in Re-speaking and MT Assessment ........................................ 241
Krzysztof Wolk, Danijel Korzinek and Krzysztof Marasek

Analysis of Complexity Between Spoken and Written Language for Statistical Machine Translation in West-Slavic Group ........... 251
Agnieszka Wolk, Krzysztof Wolk and Krzysztof Marasek

Interactive Gradually Generating Relevance Query Refinement Under the Human-Mediated Scenario in Multilingual Settings .......... 261
Jolanta Mizera-Pietraszko and Aleksander Zgrzywa

Definition of Requirements for Accessing Multilingual Information and Opinions ..................................... 273
Jan Derkacz, Mikołaj Leszczuk, Michał Grega, Arian Koźbial and Kamel Smalii

Query Answering to IQ Test Questions Using Word Embedding ...... 283
Michał Frąckowiak, Jakub Dutkiewicz, Czesław Jędrzejek, Marek Retinger and Paweł Werda

Identification of a Multi-criteria Assessment Model of Relation Between Editorial and Commercial Content in Web Systems .......... 295
Jarosław Jankowski, Wojciech Sałabun and Jarosław Wątróbski

Unsupervised Construction of Quasi-comparable Corpora and Probing for Parallel Textual Data ........................... 307
Krzysztof Wolk and Krzysztof Marasek

Active Learning-Based Approach for Named Entity Recognition on Short Text Streams ........................................ 321
Cuong Van Tran, Tuong Tri Nguyen, Dinh Tuyen Hoang, Dosam Hwang and Ngoc Thanh Nguyen

Part V Internet and Network Technologies

Prediction of Topics Popularity on On-Line Social Networks ........ 333
František Babič and Anna Drábiková

canaliza.pl—A New Online Service for Financial Analysis .......... 343
Tomasz Jastrząb, Monika Wieczorek-Kosmala, Joanna Blach and Grzegorz Kwiatkowski

Hierarchical Topic Modeling Based on the Combination of Formal Concept Analysis and Singular Value Decomposition ....... 357
Miroslav Smatana and Peter Butka
RDF Event Stream Processing Based on the Publish-Subscribe Pattern ..................................................... 369
Dominik Tomaszuk

Influence of Message-Oriented Middleware on Performance of Network Management System: A Modelling Study .................. 379
Krzysztof Grochla, Mateusz Nowak, Piotr Pecka and Sławomir Nowak

Communication Approach in Distributed Systems on .NET Platform .................................................. 395
Aneta Poniszewska-Maranda and Piotr Wasilewski

Piotr Chynał, Adrianna Kozierekiewicz-Hetmańska and Marcin Pietranik

Two-Step Reduction of GOSCL Based on Subsets Quality Measure and Stability Index ............................. 419
Peter Butka, Jozef Pócs and Jana Pócsová

Author Index ................................................ 431
Multimedia and Network Information Systems
Proceedings of the 10th International Conference MISSI
2016
Zgrzywa, A.; Choroś, K.; Sieminski, A. (Eds.)
2017, XIV, 432 p. 137 illus., 91 illus. in color., Softcover
ISBN: 978-3-319-43981-5