Contents – Part I

Knowledge Engineering and Semantic Web

A Novel Approach to Multimedia Ontology Engineering for Automated Reasoning over Audiovisual LOD Datasets .................................. 3
  Leslie F. Sikos

Finding Similar Clothes Based on Semantic Description for the Purpose of Fashion Recommender System .................................................. 13
  Dariusz Frejlichowski, Piotr Czapiecki, and Radosław Hofman

An Influence Analysis of the Inconsistency Degree on the Quality of Collective Knowledge for Objective Case. ................................. 23
  Van Du Nguyen and Ngoc Thanh Nguyen

Knowledge Base Refinement with Gamified Crowdsourcing ........................ 33
  Daiki Kurita, Boonsita Roengsamut, Kazuhiro Kuwabara, and Hung-Hsuan Huang

Argumentation Framework for Merging Stratified Belief Bases ..................... 43
  Trong Hieu Tran, Thi Hong Khanh Nguyen, Quang Thuy Ha, and Ngoc Trinh Vu

An Ontology-Based Knowledge Representation of MCDA Methods ................. 54
  Jarosław Wątróbski and Jarosław Jankowski

Preliminary Evaluation of Multilevel Ontology Integration on the Concept Level ................................................................. 65
  Adrianna Kozierkiewicz-Hetmainńska and Marcin Pietranik

Temporal Ontology Representation and Reasoning Using Ordinals and Sets for Historical Events ......................................................... 75
  Myung-Duk Hong, Kyeong-Jin Oh, Seung-Hyun Go, and Geun-Sik Jo

Measuring Propagation Phenomena in Social Networks: Promising Directions and Open Issues .......................................................... 86
  Dariusz Król

Social Networks and Recommender Systems

Visualizing Learning Activities in Social Network ........................................ 97
  Thi Hoang Yen Ho, Thanh Tam Nguyen, and Insu Song
### Text Processing and Information Retrieval

- **A Mobility Prediction Model for Location-based Social Networks.**
  - Nguyen Thanh Hai, Huu-Hoa Nguyen, and Nguyen Thai-Nghe
  - Page 106

- **Empirical Analysis of the Relationship Between Trust and Ratings in Recommender Systems.**
  - Kulwadee Somboonviwat and Hisayuki Aoyama
  - Page 116

- **Integrated Feature Selection Methods Using Metaheuristic Algorithms for Sentiment Analysis.**
  - Alireza Yousefpour, Roliana Ibrahim, Haiza Nuzly Abdul Hamed, and Takeru Yokoi
  - Page 129

- **Big Data in Contemporary Linguistic Research. In Search of Optimum Methods for Language Chronologization.**
  - Piotr Wierczoni
  - Page 141

- **Improving Twitter Aspect-Based Sentiment Analysis Using Hybrid Approach.**
  - Nurulhuda Zainuddin, Ali Selamat, and Roliana Ibrahim
  - Page 151

- **Design of a Yoruba Language Speech Corpus for the Purposes of Text-to-Speech (TTS) Synthesis.**
  - Théophile K. Dagba, John O.R. Aoga, and Codjo C. Fanou
  - Page 161

- **Named Entity Recognition for Vietnamese Spoken Texts and Its Application in Smart Mobile Voice Interaction.**
  - Phuong-Nam Tran, Van-Duc Ta, Quoc-Tuan Truong, Quang-Vu Duong, Thac-Thong Nguyen, and Xuan-Hieu Phan
  - Page 170

- **Explorations of Prosody in Vietnamese Language.**
  - Tang Ho Lê and Anh-Việt Nguyễn
  - Page 181

- **Identifying User Intents in Vietnamese Spoken Language Commands and Its Application in Smart Mobile Voice Interaction.**
  - Thi-Lan Ngo, Van-Hop Nguyen, Thi-Hai-Yen Vuong, Thac-Thong Nguyen, Thi-Thua Nguyen, Bao-Son Pham, and Xuan-Hieu Phan
  - Page 190

- **A Method for Determining Representative of Ontology-based User Profile in Personalized Document Retrieval Systems.**
  - Bernadetta Maleszka
  - Page 202
Database Systems and Software Engineering

Data Quality Scores for Pricing on Data Marketplaces .......................... 215
   Florian Stahl and Gottfried Vossen

Extraction of Structural Business Rules from C# ............................. 225
   Bogumila Hnatkowska and Marcin Ważeliński

Higher Order Mutation Testing to Drive Development of New Test Cases:
An Empirical Comparison of Three Strategies .................................. 235
   Quang Vu Nguyen and Lech Madeyski

On the Relationship Between the Order of Mutation Testing and the
Properties of Generated Higher Order Mutants .................................. 245
   Quang Vu Nguyen and Lech Madeyski

Intelligent Information Systems

Responsive Web Design: Testing Usability of Mobile Web Applications .... 257
   Jarosław Bernacki, Ida Blażejczyk, Agnieszka Indyka-Piasecka,
   Marek Kopel, Elżbieta Kukla, and Bogdan Trawiński

Person Name Disambiguation for Building University Knowledge Base .... 270
   Piotr Andruszkiewicz and Szymon Szepietowski

Improving Behavior Prediction Accuracy by Using Machine Learning
for Agent-Based Simulation ............................................................ 280
   Shinji Hayashi, Niken Prasasti, Katsutoshi Kanamori,
   and Hayato Ohwada

A Model for Analysis and Design of Information Systems Based on a
Document Centric Approach ............................................................ 290
   Bálint Molnár, András Benczúr, and András Béleczi

MobiCough: Real-Time Cough Detection and Monitoring Using Low-Cost
Mobile Devices .............................................................................. 300
   Cuong Pham

Database of Peptides Susceptible to Aggregation as a Tool for Studying
Mechanisms of Diseases of Civilization ............................................ 310
   Paweł P. Wozniak, Jean-Christophe Nebel, and Małgorzata Kotulska

Using a Cloud Computing Telemetry Service to Assess PaaS Setups ...... 320
   Francisco Anderson Freire Pereira, Jackson Soares,
   Adriamme Paula Vieira Andrade, Gilson Gomes Silva,
   and João Paulo Souza Medeiros
Towards the Tradeoff Between Online Marketing Resources Exploitation and the User Experience with the Use of Eye Tracking  
*Jarosław Jankowski, Paweł Ziemba, Jarosław Wątróbski, and Przemysław Kazienko*

Using Cognitive Agents for Unstructured Knowledge Management in a Business Organization’s Integrated Information System  
*Marcin Hernes*

A Norm Assimilation Approach for Multi-agent Systems in Heterogeneous Communities  
*Moamin A. Mahmoud, Mohd Sharifuddin Ahmad, and Mohd Zaliman M. Yusoff*

Knowledge in Asynchronous Social Group Communication  
*Marcin Maleszka*

**Decision Support and Control Systems**

Interpreted Petri Nets in DES Control Synthesis  
*František Čapkovič*

Enhanced Guided Ejection Search for the Pickup and Delivery Problem with Time Windows  
*Jakub Nalepa and Miroslaw Blocho*

How to Generate Benchmarks for Rich Routing Problems?  
*Marcin Cwiek, Jakub Nalepa, and Marcin Dublanski*

Formal a Priori Power Analysis of Elements of a Communication Graph  
*Jacek Mercik*

Angiogenic Switch - Mixed Spatial Evolutionary Game Approach  
*Michal Krzeslak, Damian Borys, and Andrzej Swierniak*

Model Kidney Function in Stabilizing of Blood Pressure  
*Martin Augustynek, Jan Kubicek, Martin Cerny, and Marie Bachrata*

Dynamic Diversity Population Based Flower Pollination Algorithm for Multimodal Optimization  
*Jeng-Shyang Pan, Thi-Kien Dao, Trong-The Nguyen, Shu-Chuan Chu, and Tien-Szu Pan*

Hardware Implementation of Fuzzy Petri Nets with Lukasiewicz Norms for Modelling of Control Systems  
*Zbigniew Hajduk and Jolanta Wojtowicz*
ALMM Solver for Combinatorial and Discrete Optimization
Problems – Idea of Problem Model Library
Ewa Dudek-Dyduch and Slawomir Korzonek
Integration of Collective Knowledge in Financial Decision Support System
Marcin Hernes and Andrzej Bytniewski
Framework for Product Innovation Using SOEKS and Decisional DNA
Mohammad Maqbool Waris, Cesar Sanin, and Edward Szczerbicki
Common-Knowledge and KP-Model
Takashi Matsuhisa
Controllability of Semilinear Fractional Discrete Systems
Jerzy Klamka

Machine Learning and Data Mining
On Fast Randomly Generation of Population of Minimal Phase and Stable
Biquad Sections for Evolutionary Digital Filters Design Methods
Adam Slowik
Recursive Ensemble Land Cover Classification with Little Training Data
and Many Classes
Yu Oya, Katsutoshi Kanamori, and Hayato Ohwada
Treap Mining – A Comparison with Traditional Algorithm
H.S. Anand and S.S. Vinodchandra
SVM Based Lung Cancer Prediction Using microRNA Expression
Profiling from NGS Data
Salim A., Amjesh R., and Vinod Chandra S.S.
Forecasting the Magnitude of Dengue in Southern Vietnam
Tuan Q. Dinh, Hiep V. Le, Tru H. Cao, Quang C. Luong, and Hai T. Diep
Self-paced Learning for Imbalanced Data
Maciej Zięba, Jakub M. Tomczak, and Jerzy Świątek
A New Similarity Measure for Intuitionistic Fuzzy Sets
Hoang Nguyen
Multiple Kernel Based Collaborative Fuzzy Clustering Algorithm
Trong Hop Dang, Long Thanh Ngo, and Wiltold Pedrycz
Credit Risk Evaluation Using Cycle Reservoir Neural Networks with Support Vector Machines Readout ........................................ 595
Ali Rodan and Hossam Faris

Fuzzy-Based Feature and Instance Recovery .................................... 605
Shigang Liu, Jun Zhang, Yu Wang, and Yang Xiang

An Enhanced Support Vector Machine for Faster Time Series Classification . . . 616
Thapanan Janyalikit, Phongsakorn Sathianwiriyakhun, Haemwaan Sivaraks, and Chotirat Ann Ratanamahatana

Parallel Implementations of the Ant Colony Optimization Metaheuristic . . . . 626
Andrzej Siemiński

A Segmented Artificial Bee Colony Algorithm Based on Synchronous Learning Factors ..................................................... 636
Yu Li, Jianxia Zhang, Dongsheng Zhou, and Qiang Zhang

A Method for Query Top-K Rules from Class Association Rule Set ............... 644
Loan T.T. Nguyen, Hai T. Nguyen, Bay Vo, and Ngoc-Thanh Nguyen

Hierarchy of Groups Evaluation Using Different F-Score Variants ................. 654
Michał Spytkowski, Łukasz P. Olech, and Halina Kwasnicka

Hierarchical Evolutionary Multi-biclustering: Hierarchical Structures of Biclusters Generation .................................................... 665
Anna Maria Filipiak and Halina Kwasnicka

Computer Vision Techniques

Feature Selection Based on Synchronization Analysis for Multiple fMRI Data ................................................................. 679
Ngoc Dung Bui, Hieu Cuong Nguyen, Sellappan Palaniappan, and Siew Ann Cheong

Exploiting GPU for Large Scale Fingerprint Identification ....................... 688
Hong Hai Le, Ngoc Hoa Nguyen, and Tri Thanh Nguyen

Extraction of Myocardial Fibrosis Using Iterative Active Shape Method ....... 698
Jan Kubíček, Iveta Bryjova, Marek Penhaker, Michal Kodaj, and Martin Augustyniak

Increasing the Efficiency of GPU-Based HOG Algorithms Through Tile-Images .......................................................... 708
Dariusz Malysiak and Markus Markard
Gradient Depth Map Based Ground Plane Detection for Mobile Robot Applications

Dang Khanh Hoa, Pham The Cuong, and Nguyen Tien Dzung

Multiscale Car Detection Using Oriented Gradient Feature and Boosting Machine.

Wahyono, Van-Dung Hoang, and Kang-Hyun Jo

Probabilistic Approach to Content-Based Indexing and Categorization of Temporally Aggregated Shots in News Videos.

Kazimierz Choroś

A Method of Data Registration for 3D Point Clouds Combining with Motion Capture Technologies.

Shicheng Zhang, Dongsheng Zhou, and Qiang Zhang

Detection and Recognition of Speed Limit Sign from Video.

Lei Zhu, Chun-Sheng Yang, and Jeng-Shyang Pan

FARTHEST: FormAl distRibuTed scHema to dEtect Suspicious arTefacts.

Pablo C. Cañizares, Mercedes G. Merayo, and Alberto Núñez

A Fast and Robust Image Watermarking Scheme Using Improved Singular Value Decomposition.

Cao Thi Luyen, Nguyen Hieu Cuong, and Pham Van At


Van-Dung Hoang and Kang-Hyun Jo

Selections of Suitable UAV Imagery’s Configurations for Regions Classification.

Hai Vu, Thi Lan Le, Van Giap Nguyen, and Tan Hung Dinh

Author Index
## Contents – Part II

### Intelligent Big Data Exploitation

Redhyte: Towards a Self-diagnosing, Self-correcting, and Helpful Analytic Platform ................................. 3  
*Wei Zhong Toh, Kwok Pui Choi, and Limsoon Wong*

Learning to Filter User Explicit Intents in Online Vietnamese Social Media Texts ................................................. 13  
*Thai-Le Luong, Thi-Hanh Tran, Quoc-Tuan Truong, Thi-Minh-Ngoc Truong, Thi-Thu Phi, and Xuan-Hieu Phan*

Retrieving Rising Stars in Focused Community Question-Answering ................................. 25  
*Long T. Le and Chirag Shah*

### Cloud and Network Computing

Fuzzy Inference System for Mobility Prediction to Control HELLO Broadcasting in MANET ................................. 39  
*Tran The Son, Hoang Bao Hung, Vo Duy Thanh, Nguyen Vu, and Hoa Le-Minh*

Resource Allocation for Virtual Service Based on Heterogeneous Shared Hosting Platforms ........................................... 51  
*Nguyen Minh Nhut Pham, Thu Huong Nguyen, and Van Son Le*

Design and Implementation of Data Synchronization and Offline Capabilities in Native Mobile Apps ................................. 61  
*Kamoliddin Mavlonov, Tsutomu Inamoto, Yoshinobu Higami, and Shin-Ya Kobayashi*

### Multiple Model Approach to Machine Learning

A Machine Learning Based Technique for Detecting Digital Image Resampling ................................. 75  
*Hieu Cuong Nguyen*

Empirical Study of Social Collaborative Filtering Algorithm ................................. 85  
*Firas Ben Kharrat, Aymen Elkhlifi, and Rim Faiz*
Cooperation Prediction in GitHub Developers Network with Restricted Boltzmann Machine

Roman Bartusiak, Tomasz Kajdanowicz, Adam Wierzbicki, Leszek Bukowski, Oskar Jarczyk, and Kamil Pawlak

Fast and Accurate - Improving Lexicon-Based Sentiment Classification with an Ensemble Methods

Łukasz Augustyniak, Piotr Szymański, Tomasz Kajdanowicz, and Przemysław Kazienko

Adaptive Ant Clustering Algorithm with Pheromone

Urszula Boryczka and Jan Kozak

Link Prediction in a Semi-bipartite Network for Recommendation

Aastha Nigam and Nitesh V. Chawla

Hybrid One-Class Ensemble for High-Dimensional Data Classification

Bartosz Krawczyk

Advanced Data Mining Techniques and Applications

A Lossless Representation for Association Rules Satisfying Multiple Evaluation Criteria

Marzena Kryszkiewicz

Learning Algorithms Aimed at Collinear Patterns

Leon Bobrowski and Paweł Zabielski

Fast Human Activity Recognition Based on a Massively Parallel Implementation of Random Forest

Jan Janoušek, Petr Gajdoš, Pavel Dohnálek, and Michal Radeczyk

An Item-Based Music Recommender System Using Music Content Similarity

Ja-Hwung Su and Ting-Wei Chiu

Efficient Mining of Fuzzy Frequent Itemsets with Type-2 Membership Functions

Jerry Chun-Wei Lin, Xianbiao Lv, Philippe Fournier-Viger, Tsu-Yang Wu, and Tzung-Pei Hong

Improving the Performance of Collaborative Filtering with Category-Specific Neighborhood

Karnam Dileep Kumar, Polepalli Krishna Reddy, Pailla Balakrishna Reddy, and Longbing Cao

Mining Drift of Fuzzy Membership Functions

Tzung-Pei Hong, Min-Thai Wu, Yan-Kang Li, and Chun-Hao Chen
Mining Discriminative High Utility Patterns

Jerry Chun-Wei Lin, Wensheng Gan, Philippe Fournier-Viger, and Tzung-Pei Hong

An Experimental Study on Cholera Modeling in Hanoi

Ngoc-Anh Thi Le, Thi-Oanh Ngo, Huyen-Trang Thi Lai, Hoang-Quynh Le, Hai-Chau Nguyen, and Quang-Thuy Ha

On Velocity-Preserving Trajectory Simplification

Josh Jia-Ching Ying and Ja-Hwung Su

Computational Intelligence in Data Mining for Complex Problems

Sink Toward Source Algorithm Finding Maximal Flows on Extended Mixed Networks

Viet Tran Ngoc, Hung Hoang Bao, Chien Tran Quoc, Thanh Le Manh, and Van Hoang Thi Khanh

An Efficient Algorithm for a New Constrained LCS Problem

Daxin Zhu, Yingjie Wu, and Xiaodong Wang

A New Betweenness Centrality Algorithm with Local Search for Community Detection in Complex Network

Yousef Belkhiri, Nadjet Kamel, and Habiba Drias

Meta-Apriori: A New Algorithm for Frequent Pattern Detection

Neyla Cherifa Benhamouda, Habiba Drias, and Célia Hirèche

Solving a Malleable Jobs Scheduling Problem to Minimize Total Weighted Completion Times by Mixed Integer Linear Programming Models

Nhan-Quy Nguyen, Farouk Yalaoui, Lionel Amodeo, Hicham Chehade, and Pascal Toggenburger

Theoretical Analysis of Workload Imbalance Minimization Problem on Identical Parallel Machines

Yassine Ouazene, Farouk Yalaoui, Alice Yalaoui, and Hicham Chehade

Collective Intelligence for Service Innovation, Technology Opportunity, E-Learning and Fuzzy Intelligent Systems

A New Cosine Similarity Matching Model for Interior Design Drawing Case Reasoning

Kuo-Sui Lin and Ming-Chang Ke

The Framework of Discovery Early Adopters’ Incipient Innovative Ideas

Chao-Fu Hong, Mu-Hua Lin, and Woo-Tsong Lin
Collaborative Learning in Teacher Education Community for Pre-service Teacher Practice Learning

Chia-Ling Hsu, Yi-Fang Chang, Chien-Han Chen, and Huey-Fang Ju

328

Mobile-Assisted Model of Teaching and Learning English for IT Students

Ivana Simonova and Petra Poulouva

336

IPO and Financial News

Jia-Lang Seng, Pi-Hua Yang, and Hsiao-Fang Yang

346

An Evaluation of the Conversation Agent System

Ong Sing Goh, Yogan Jaya Kumar, Ngo Hea Choon, Pui Huang Leong, and Mohammad Safar

354

Simulation of Each Type of Defibrillation Impulses by Using LabVIEW

Lukas Peter and Radek Osmancik

366

Analysis of Image, Video and Motion Data in Life Sciences

Building the Facial Expressions Recognition System Based on RGB-D Images in High Performance

Trung Truong and Ngoc Ly

377

Zero-Velocity Detectors for Orientation Estimation Problem

Agnieszka Szczesna, Przemyslaw Pruszowski, Andrzej Polanski, Damian Peszor, and Konrad Wojciechowski

388

Analysis of Human Motion Data Using Recurrence Plots and Recurrence Quantification Measures

Henryk Josiński, Agnieszka Michalczuk, Romualda Mucha, Adam Świtoński, Agnieszka Szczęsna, and Konrad Wojciechowski

397

Cellular Nuclei Differentiation Evaluated by Automated Analysis of CLSM Images

Julita Kulbacka, Marek Kulbacki, Jakub Segen, Grzegorz Chodaczek, Magda Dubinska-Magiera, and Jolanta Saczko

407

Selected Space-Time Based Methods for Action Recognition

Sławomir Wojciechowski, Marek Kulbacki, Jakub Segen, Rafał Wyciślok, Artur Bąk, Kamil Wereszczyński, and Konrad Wojciechowski

417

Recent Developments in Tracking Objects in a Video Sequence

Michał Stanisławski, Mateusz Kłoszczyk, Jakub Segen, Kamil Wereszczyński, Aldona Drabik, and Marek Kulbacki

427
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent Developments on 2D Pose Estimation From Monocular Images</td>
<td>437</td>
</tr>
<tr>
<td>Artur Bąk, Marek Kulbacki, Jakub Segen, Dawid Świętkowski, and Kamil Wereszczyński</td>
<td></td>
</tr>
<tr>
<td>Video Editor for Annotating Human Actions and Object Trajectories</td>
<td>447</td>
</tr>
<tr>
<td>Marek Kulbacki, Kamil Wereszczyński, Jakub Segen, Michał Sachajko, and Artur Bąk</td>
<td></td>
</tr>
<tr>
<td>Learning Articulated Models of Joint Anatomy from Ultrasound Images</td>
<td>458</td>
</tr>
<tr>
<td>Jakub Segen, Kamil Wereszczyński, Marek Kulbacki, Artur Bąk, and Marzena Wojciechowska</td>
<td></td>
</tr>
<tr>
<td>Facial Reconstruction on the Basis of Video Surveillance System for the Purpose of Suspect Identification</td>
<td>467</td>
</tr>
<tr>
<td>Damian Pęszor, Michał Staniszewski, and Marzena Wojciechowska</td>
<td></td>
</tr>
<tr>
<td>Efficient Motion Magnification</td>
<td>477</td>
</tr>
<tr>
<td>Mariusz Domżał, Dawid Sobel, Jan Kwiatkowski, Karol Jędrasiak, and Aleksander Nawrat</td>
<td></td>
</tr>
<tr>
<td>Real Time Thermogram Enhancement by FPGA-Based Contrast Stretching</td>
<td>487</td>
</tr>
<tr>
<td>Jan Kwiatkowski, Krzysztof Daniec, Karol Jędrasiak, Dawid Sobel, Mariusz Domżał, and Aleksander Nawrat</td>
<td></td>
</tr>
<tr>
<td><strong>Real World Applications in Engineering and Technology</strong></td>
<td></td>
</tr>
<tr>
<td>Dijkstra-Based Selection for Parallel Multi-lanes Map-Matching and an Actual Path Tagging System</td>
<td>499</td>
</tr>
<tr>
<td>Mick Chang-Heng Lin, Fu-Ming Huang, Po-Ching Liu, Yu-Hsiang Huang, and You-shan Chung</td>
<td></td>
</tr>
<tr>
<td>PBX Autoresponder System for Information Lookup of Pupil Records</td>
<td>509</td>
</tr>
<tr>
<td>Nguyen Hong Quang, Trinh Van Loan, and Bui Duy Chien</td>
<td></td>
</tr>
<tr>
<td>Possibilities for Development and Use of 3D Applications on the Android Platform</td>
<td>519</td>
</tr>
<tr>
<td>Tomas Marek, Ondrej Krejcar, and Ali Selamat</td>
<td></td>
</tr>
<tr>
<td><strong>Ontology-Based Software Development</strong></td>
<td></td>
</tr>
<tr>
<td>Ensuring the Correctness of Business Workflows at the Syntactic Level: An Ontological Approach</td>
<td>533</td>
</tr>
<tr>
<td>Thi-Hoa-Hue Nguyen and Nhan Le-Thanh</td>
<td></td>
</tr>
</tbody>
</table>
Semantic Integration via Enterprise Service Bus in Virtual Organization
Breeding Environments ................................................................. 544
Wilcilene Maria Kowal Schratzenstaller, Fabiano Baldo,
and Ricardo José Rabelo

Conceptual Modeling Using Knowledge of Domain Ontology .......... 554
Hnatkowska Bogumił, Huzar Zbigniew, Tuzinkiewicz Lech,
and Dubielewicz Iwona

Intelligent and Context Systems

Using Context-Aware Environment for Elderly Abuse Prevention ......... 567
Maciej Huk

Post-search Ambiguous Query Classification Method Based on Contextual
and Temporal Information ............................................................. 575
Shahid Kamal, Roliana Ibrahim, and Imran Ghani

A Context-Aware Implicit Feedback Approach for Online Shopping
Recommender Systems ................................................................. 584
Luu Nguyen Anh-Thu, Huu-Hoa Nguyen, and Nguyen Thai-Nghe

Improving Efficiency of Sentence Boundary Detection by Feature Selection ... 594
Thi-Nga Ho, Tze Yuang Chong, Van Hai Do, Van Tung Pham,
and Eng Siong Chng

Modelling and Optimization Techniques in Information Systems,
Database Systems and Industrial Systems

Pointing Error Effects on Performance of Amplify-and-Forward Relaying
MIMO/FSO Systems Using SC-QAM Signals Over Log-Normal
Atmospheric Turbulence Channels .................................................. 607
Duong Huu Ai, Ha Duyen Trung, and Do Trong Tuan

Portfolio Optimization by Means of a $\chi$- Armed Bandit Algorithm ....... 620
Mahdi Moeini, Oliver Wendt, and Linus Krumrey

MSDN-TE: Multipath Based Traffic Engineering for SDN ................. 630
Khoa Truong Dinh, Slawomir Kukliński, Wiktor Kujawa,
and Michał Ulaski

DC Programming and DCA for Enhancing Physical Layer Security via
Relay Beamforming Strategies ...................................................... 640
Tran Thi Thuy, Nguyen Nhu Tuan, Le Thi Hoai An, and Alain Gély
Bees and Pollens with Communication Strategy for Optimization ............ 651
   Tien-Szu Pan, Thi-Kien Dao, Trong-The Nguyen, Shu-Chuan Chu,
   and Jeng-Shyang Pan

Online DC Optimization for Online Binary Linear Classification ............ 661
   Ho Vinh Thanh, Le Thi Hoai An, and Bui Dinh Chien

Robust Optimization for Clustering ........................................... 671
   Xuan Thanh Vo, Hoai An Le Thi, and Tao Pham Dinh

Using Valid Inequalities and Different Grids in LP-Based Heuristic for Packing Circular Objects .............................................. 681
   Igor Litvinchev, Luis Infante, and Edith Lucero Ozuna Espinosa

Optimisation of Query Processing with Multilevel Storage ................. 691
   Nan N. Noon and Janusz R. Getta

Smart Pattern Processing for Sports

A Real-Time Intelligent Biofeedback Gait Patterns Analysis System for Knee Injured Subjects ...................................................... 703
   Putri Wulandari, S.M.N. Arosha Senanayake, and Owais Ahmed Malik

Pattern Recognition of Brunei Soldier’s Based on 3-Dimensional Kinematics and Spatio-Temporal Parameters ............................... 713
   D.N. Filzah P. Damit, S.M.N. Arosha Senanayake, Owais Ahmed Malik,
   and P.H.N. Jaidi P. Tuah

An Integrated Pattern Recognition System for Knee Flexion Analysis ...... 723
   Joko Triloka, S.M.N. Arosha Senanayake, and Daphne Lai

An EMG Knowledge-Based System for Leg Strength Classification and Vertical Jump Height Estimation of Female Netball Players ............ 733
   Umar Yahya, S.M.N. Arosha Senanayake, and Daphne Lai

Intelligent Services for Smart Cities

Approach to Priority-Based Controlling Traffic Lights ........................ 745
   Phuoc Vinh Tran, Tha Thi Bui, Diem Tran, Phuong Quoc Pham,
   and Anh Van Thi Tran

ALPR - Extension to Traditional Plate Recognition Methods ................ 755
   Konrad Kluwak, Jakub Segen, Marek Kulbacki, Aldona Drabik,
   and Konrad Wojciechowski
Intelligent Information and Database Systems
8th Asian Conference, ACIIDS 2016, Da Nang, Vietnam,
March 14-16, 2016, Proceedings, Part I
Nguyen, N.T.; Trawiński, B.; Fujita, H.; Hong, T.-P. (Eds.)
2016, XL, 815 p. 251 illus. in color., Softcover
ISBN: 978-3-662-49380-9