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Intelligent Information and Database Systems

11th Asian Conference, ACIIDS 2019
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Preface

ACIIDS 2019 was the 11th event in a series of international scientific conferences on research and applications in the field of intelligent information and database systems. The aim of ACIIDS 2019 was to provide an international forum of research workers with scientific background on the technology of intelligent information and database systems and its various applications. The ACIIDS 2019 conference was co-organized by BINUS University (Indonesia) and Wrocław University of Science and Technology (Poland) in co-operation with the IEEE SMC Technical Committee on Computational Collective Intelligence, European Research Center for Information Systems (ERCIS), University of Newcastle (Australia), Yeungnam University (South Korea), Leiden University (The Netherlands), Universiti Teknologi Malaysia (Malaysia), Quang Binh University (Vietnam), Ton Duc Thang University (Vietnam), and Vietnam National University, Hanoi (Vietnam). It took place in Yogyakarta in Indonesia during April 8–11, 2019.

The ACIIDS conference series is already well established. The first two events, ACIIDS 2009 and ACIIDS 2010, took place in Dong Hoi City and Hue City in Vietnam, respectively. The third event, ACIIDS 2011, took place in Daegu (South Korea), followed by the fourth event, ACIIDS 2012, in Kaohsiung (Taiwan). The fifth event, ACIIDS 2013, was held in Kuala Lumpur in Malaysia while the sixth event, ACIIDS 2014, was held in Bangkok in Thailand. The seventh event, ACIIDS 2015, took place in Bali (Indonesia), followed by the eighth event, ACIIDS 2016, in Da Nang (Vietnam). The ninth event, ACIIDS 2017, was organized in Kanazawa (Japan). The 10th jubilee conference, ACIIDS 2018, was held in Dong Hoi City (Vietnam).

For this edition of the conference, we received more than 300 papers from 38 countries all over the world. Each paper was peer-reviewed by at least two members of the international Program Committee and the international reviewer board. Only 124 papers with the highest quality were selected for an oral presentation and publication in these two volumes of the ACIIDS 2019 proceedings.

Papers included in the proceedings cover the following topics: knowledge engineering and Semantic Web; text processing and information retrieval; machine learning and data mining; decision support and control systems; computer vision techniques; databases and intelligent information systems, collective intelligence for service innovation, technology management, e-learning and fuzzy intelligent systems, data structures modelling for knowledge representation, advanced data mining techniques and applications; intelligent information systems; intelligent methods and artificial intelligence for biomedical decision support systems, intelligent and contextual systems, intelligent systems and algorithms in information sciences, intelligent supply chains and e-commerce, sensor networks and internet of things, analysis of image, video, movements and brain intelligence in life sciences, computer vision and intelligent systems.

The accepted and presented papers focus on new trends and challenges facing the intelligent information and database systems community. The presenters showed in what way research work could stimulate novel and innovative applications. We hope you will find these results useful and inspiring for your future research work.

We would like to extend our heartfelt thanks to Jarosław Gowin, Deputy Prime Minister of the Republic of Poland and Minister of Science and Higher Education, for his support and honorary patronage of the conference.

We would like to express our sincere thanks to the CEO of Bina Nusantara Group, Ir Bernard Gunawan, honorary chairs, Prof. Harjanto Prabowo (Rector of BINUS University, Indonesia), and Prof. Cezary Madryas (Rector of Wrocław University of Science and Technology, Poland), for their support.

Our special thanks go to the program chairs, special session chairs, organizing chairs, publicity chairs, liaison chairs, and local Organizing Committee for their work for the conference. We sincerely thank all the members of the international Program Committee for their valuable efforts in the review process, which helped us to guarantee the highest quality of the selected papers for the conference. We cordially thank the organizers and chairs of special sessions, who contributed to the success of the conference.

We would like to express our thanks to the keynote speakers: Prof. Stephan Chalup from the University of Newcastle, Australia, Prof. Hamido Fujita from Iwate Prefectural University, Japan, Prof. Tokuro Matsuo from Advanced Institute of Industrial Technology, Japan, Prof. Michał Woźniak from Wrocław University of Science and Technology, Poland, and Dr. Alfred Budiman, CEO of Samsung R&D Indonesia (SRIN), for their world-class plenary speeches.

We cordially thank our main sponsors, BINUS University (Indonesia), Wrocław University of Science and Technology (Poland), IEEE SMC Technical Committee on Computational Collective Intelligence, European Research Center for Information Systems (ERCIS), University of Newcastle (Australia), Yeungnam University (South Korea), Leiden University (The Netherlands), Universiti Teknologi Malaysia (Malaysia), Quang Binh University (Vietnam), Ton Duc Thang University (Vietnam), and Vietnam National University, Hanoi (Vietnam). Our special thanks are due also to Springer for publishing the proceedings and sponsoring awards, and to all the other sponsors for their kind support.

We wish to thank the members of the Organizing Committee for their excellent work and the members of the local Organizing Committee for their considerable effort. We cordially thank all the authors, for their valuable contributions, and the other participants of this conference. The conference would not have been possible without their support. Thanks are also due to many experts who contributed to making the event a success.

April 2019

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Contents – Part II

Collective Intelligence for Service Innovation, Technology Management, E-learning, and Fuzzy Intelligent

Increasing the Quality of Multi-step Consensus 3
Dai Tho Dang, Ngoc Thanh Nguyen, and Dosam Hwang

An Independence Measure for Expert Collections Based on Social Media Profiles 15
Rafał Palak and Ngoc Thanh Nguyen

A Pattern Recognition Based FMEA for Safety-Critical SCADA Systems . . . 26
Kuo-Sui Lin

Interactive Genetic Algorithm Joining Recommender System 40
Po-Kai Wang, Chao-Fu Hong, and Min-Huei Lin

Maturity Level Evaluation of Information Technology Governance in Payment Gateway Service Company Using COBIT 49
Nilo Legowo and Azda Firmansyah

Data Structures Modelling for Knowledge Representation

A Framework for Merging Possibilistic Knowledge Bases 65
Thi Thanh Luu Le

Conceptual Modeling of Team Development 77
Marcin Jodłowiec and Julia Piecuch

Ontological Information as Part of Continuous Monitoring Software for Production Fault Detection 89
Marek Krótkiewicz, Krystian Wojtkiewicz, Marcin Jodłowiec, Jan Skowroński, and Maciej Zaręba

Social Media Influence as an Enabler of a Sustainable Knowledge Management System Inside PT. ABC Organization 103
Benhard Hutajulu and Harisno

Advanced Data Mining Techniques and Applications

Content-Based Music Classification by Advanced Features and Progressive Learning 117
Ja-Hwung Su, Chu-Yu Chin, Tzung-Pei Hong, and Jung-Jui Su

Appliance of Social Network Analysis and Data Visualization Techniques in Analysis of Information Propagation 131
Leo Mrsic, Srecko Zajec, and Robert Kopal

A Temporal Approach for Air Quality Forecast 144
Eric Hsueh-Chan Lu and Chia-Yu Liu

Quad-Partitioning-Based Robotic Arm Guidance Based on Image Data Processing with Single Inexpensive Camera For Precisely Picking Bean Defects in Coffee Industry 152
Chen-Ju Kuo, Ding-Chau Wang, Pin-Xin Lee, Tzu-Ting Chen, Gwo-Jiun Horng, Tz-Heng Hsu, Zhi-Jing Tsai, Mao-Yuan Pai, Gen-Ming Guo, Yu-Chuan Lin, Min-Hsiung Hung, and Chao-Chun Chen

On the Analysis of Kelly Criterion and Its Application 165
Mu-En Wu, Wei-Ho Chung, and Chia-Jung Lee

Single Image Super-Resolution with Vision Loss Function 173
Yi-Zhen Song, Wen-Yen Liu, Ju-Chin Chen, and Kawuu W. Lin

Content-Based Motorcycle Counting for Traffic Management by Image Recognition 180
Tzung-Pei Hong, Yu-Chiao Yang, Ja-Hwung Su, and Chun-Hao Chen

Intelligent Information Systems

Use of Blockchain in Education: A Systematic Literature Review 191
Hafiza Yumna, Muhammad Murad Khan, Maria Ikram, and Sabahat Ilyas

A Comparative Study of Techniques for Avoiding Premature Convergence in Harmony Search Algorithm 203
Krzysztof Szwarc and Urszula Boryczka

Analysis of Different Approaches to Designing the Parallel Harmony Search Algorithm for ATSP 215
Krzysztof Szwarc and Urszula Boryczka

Differential Evolution in Agent-Based Computing 228
Mateusz Godzik, Bartlomiej Grochal, Jakub Piekarz, Mikolaj Sieniawski, Aleksander Byrski, and Marek Kisiel-Dorohinicki

Verifying Usefulness of Ant Colony Community for Solving Dynamic TSP 242
Andrzej Siemiński

Physical Layer Security Cognitive Decode-and-Forward Relay Beamforming Network with Multiple Eavesdroppers 254
Nguyen Nhu Tuan and Tran Thi Thuy

Co-exploring a Search Space in a Group Recommender System 264
Dai Yodogawa and Kazuhiro Kuwabara

Differential Cryptanalysis of Symmetric Block Ciphers Using Memetic Algorithms 275
Kamil Dworak and Urszula Boryczka

Intelligent Methods and Artificial Intelligence for Biomedical Decision Support Systems

Modeling of Articular Cartilage with Goal of Early Osteoarthritis Extraction Based on Local Fuzzy Thresholding Driven by Fuzzy C-Means Clustering. 289
Jan Kubicek, Alice Krestanova, Marek Penhaker, Martin Augustynek, Martin Cerny, and David Oczka

Modeling and Features Extraction of Heel Bone Fracture Reparation Dynamical Process from X-Ray Images Based on Time Iteration Segmentation Model Driven by Gaussian Energy 300
Jan Kubicek, Alice Krestanova, Iveta Bryjova, Marek Penhaker, Martin Cerny, Martin Augustynek, David Oczka, and Jan Vanus

A Semi-Supervised Learning Approach for Automatic Segmentation of Retinal Lesions Using SURF Blob Detector and Locally Adaptive Binarization 311
Tathagata Bandyopadhyay, Jan Kubicek, Marek Penhaker, Juraj Timkovic, David Oczka, and Ondrej Krejcar

Autonomous Segmentation and Modeling of Brain Pathological Findings Based on Iterative Segmentation from MR Images 324
Jan Kubicek, Alice Krestanova, Tereza Muchova, David Oczka, Marek Penhaker, Martin Cerny, Martin Augustynek, and Ondrej Krejcar

Design and Analysis of LMMSE Filter for MR Image Data 336
Jan Kubicek, Alice Krestanova, Martina Polachova, David Oczka, Marek Penhaker, Martin Cerny, Martin Augustynek, and Ondrej Krejcar

A Nearest Neighbour-Based Analysis to Identify Patients from Continuous Glucose Monitor Data 349
Michael Mayo and Vithya Yogarajan

PCA Kernel Based Extreme Learning Machine Model for Detection of NS1 from Salivary SERS Spectra 361
Nur Hainani Othman, Khuan Y. Lee, Afaf Rozan Mohd Radzol, Wahidah Mansor, and N. A. Z. M. Zulkimi

Improving the Robustness of the Glycemic Variability Percentage Metric to Sensor Dropouts in Continuous Glucose Monitor Data 373
Michael Mayo

GenPress: A Novel Dictionary Based Method to Compress DNA Data of Various Species 385
Péter Lehotay-Kéry and Attila Kiss

Utilizing Pretrained Deep Learning Models for Automated Pulmonary Tuberculosis Detection Using Chest Radiography 395
Thi Kieu Khanh Ho, Jeonghwan Gwak, Om Prakash, Jong-In Song, and Chang Min Park

Intelligent and Contextual Systems

Advanced Neural Network Approach, Its Explanation with LIME for Credit Scoring Application 407
Lkhagvadorj Munkhdalai, Ling Wang, Hyun Woo Park, and Keun Ho Ryu

Non-uniform Initialization of Inputs Groupings in Contextual Neural Networks 420
Maciej Huk

Implementation and Analysis of Contextual Neural Networks in H2O Framework 429
Krzysztof Wołk and Erik Burnell

Low-Level Greyscale Image Descriptors Applied for Intelligent and Contextual Approaches 441
Dariusz Frejlichowski

Intelligent Systems and Algorithms in Information Sciences

Motion Controlling Using Finite-State Automata 455
Michal Jaluvka, Eva Volna, and Martin Kotyrba

Automatic Recognition of Kazakh Speech Using Deep Neural Networks 465
Orken Mamyrbayev, Mussa Turdalyuly, Nurbapa Mekebayev, Keylan Alimhan, Aizat Kydyrbekova, and Tolganay Turdalykyzy

Feedback Shift Registers Evolutionary Design Using Reverse Polish Notation 475
Miłosław Chodacki

Intelligent Supply Chains and e-Commerce

IT Value for Customer: Its Influence on Satisfaction and Loyalty in E-commerce 489
Arkadiusz Kawa and Justyna Światowiec-Szczepańska

Multicriteria Selection of Online Advertising Content for the Habituation Effect Reduction 499
Anna Lewandowska, Jarosław Jankowski, Wojciech Sałabun, and Jarosław Wątróbski

Dark Side of Digital Transformation in Tourism 510
Meghdad Abbasian Fereidouni and Arkadiusz Kawa

Increasing User Engagement and Virtual Goods Life Span Through Products Diversity and Intensity of Content Updates 519
Kamil Bortko, Piotr Bartków, Patryk Pazura, and Jarosław Jankowski

Sensor Networks and Internet of Things

Analysis of the Error Rate in Electrometers for Smart Grid Metering 533
Josef Horalek and Vladimir Sobeslav

Multi-cell Based UWB Indoor Positioning System 543
JaeMin Hong, ShinHeon Kim, KyuJin Kim, and ChongGun Kim

An Improved Resampling Scheme for Particle Filtering in Inertial Navigation System 555
Wan Mohd Yaakob Wan Bejuri, Mohd Murtadha Mohamad, Raja Zahilah Raja Mohd Radzi, and Sheikh Hussain Shaikh Salleh

Analysis of Image, Video, Movements and Brain Intelligence in Life Sciences

Quaternion Watershed Transform in Segmentation of Motion Capture Data 567
Adam Świtoński, Agnieszka Michalczuk, Henryk Josiński, and Konrad Wojciechowski

How Does State Space Definition Influence the Measure of Chaotic Behavior? 579
Henryk Josiński, Adam Świtoński, Agnieszka Michalczuk, Marzena Wojciechowska, and Konrad Wojciechowski

Granular Computing (GC) Demonstrates Interactions Between Depression and Symptoms Development in Parkinson's Disease Patients 591
Andrzej W. Przybyszewski, Jerzy Paweł Nowacki, Aldona Drabik, Stanislaw Szlufik, Piotr Habela, and Dariusz M. Koziorowski

Measurements of Antisaccades Parameters Can Improve the Prediction of Parkinson's Disease Progression 602
Albert Sledzianowski, Artur Szymanski, Aldona Drabik, Stanisław Szlufik, Dariusz M. Koziorowski, and Andrzej W. Przybyszewski

DTI Helps to Predict Parkinson's Patient's Symptoms Using Data Mining Techniques 615
Artur Chudzik, Artur Szymański, Jerzy Paweł Nowacki, and Andrzej W. Przybyszewski

Fractional Calculus in Human Arm Modeling 624
Tomasz Grzejszczak, Piotr Jurgaś, Adrian Łęgowski, Michał Niezabitowski, and Justyna Orwat

Computer Vision and Intelligent Systems

Real-Time Multiple Faces Tracking with Moving Camera for Support Service Robot 639
Muhamad Dwisnanto Putro and Kang-Hyun Jo

Modified Stacked Hourglass Networks for Facial Landmarks Detection 648
Van-Thanh Hoang and Kang-Hyun Jo

Ensemble of Predictions from Augmented Input as Adversarial Defense for Face Verification System 658
Laksono Kurnianggoro and Kang-Hyun Jo

Vehicle Categorical Recognition for Traffic Monitoring in Intelligent Transportation Systems 670
Diem-Phuc Tran and Van-Dung Hoang

Video-Based Vietnamese Sign Language Recognition Using Local Descriptors 680
Anh H. Vo, Nhu T. Q. Nguyen, Ngan T. B. Nguyen, Van-Huy Pham, Ta Van Giap, and Bao T. Nguyen

Mathematical Variable Detection in PDF Scientific Documents 694
Bui Hai Phong, Thang Manh Hoang, Thi-Lan Le, and Akiko Aizawa

Predicting Cardiovascular Risk Level Based on Biochemical Risk Factor Indicators Using Machine Learning: A Case Study in Indonesia 707
Yaya Heryadi, Raymond Kosala, Raymond Bahana, and Indrajani Suteja

Author Index 719

Contents – Part I

Knowledge Engineering and Semantic Web

Algorithms for Merging Probabilistic Knowledge Bases 3
Van Tham Nguyen, Ngoc Thanh Nguyen, and Trong Hieu Tran

A Formal Framework for the Ontology Evolution 16
Adrianna Kozierkiewicz and Marcin Pietranik

Logical Problem Solving Framework 28
Kiyoshi Akama, Ekawit Nantajeewarawat, and Taketo Akama

Term Rewriting that Preserves Models in KR-Logic 41
Kiyoshi Akama, Ekawit Nantajeewarawat, and Taketo Akama

Towards Knowledge Formalization and Sharing in a Cognitive Vision Platform for Hazard Control (CVP-HC) 53
Caterine Silva de Oliveira, Cesar Sanin, and Edward Szczerbicki

Assessing Individuals Learning's Impairments from a Social Entropic Perspective 62
José Neves, Filipa Ferraz, Almeida Dias, António Capita, Liliana Ávidos, Nuno Maia, Joana Machado, Victor Alves, Jorge Ribeiro, and Henrique Vicente

Text Processing and Information Retrieval

Robust Web Data Extraction Based on Unsupervised Visual Validation 77
Benoit Potvin and Roger Villemaire

A Character-Level Deep Lifelong Learning Model for Named Entity Recognition in Vietnamese Text 90
Ngoc-Vu Nguyen, Thi-Lan Nguyen, Cam-Van Nguyen Thi, Mai-Vu Tran, and Quang-Thuy Ha

Identification of Conclusive Association Entities by Biomedical Association Mining 103
Rey-Long Liu

A Data Preprocessing Method to Classify and Summarize Aspect-Based Opinions Using Deep Learning 115
Duy Nguyen Ngoc, Tuoi Phan Thi, and Phuc Do

Word Mover's Distance for Agglomerative Short Text Clustering 128
Nigel Franciscus, Xuguang Ren, Junhu Wang, and Bela Stantic

Improving Semantic Relation Extraction System with Compositional Dependency Unit on Enriched Shortest Dependency Path. 140
Duy-Cat Can, Hoang-Quynh Le, and Quang-Thuy Ha

An Adversarial Learning and Canonical Correlation Analysis Based Cross-Modal Retrieval Model 153
Thi-Hong Vuong, Thanh-Huyen Pham, Tri-Thanh Nguyen, and Quang-Thuy Ha

Event Prediction Based on Causality Reasoning 165
Lei Lei, Xuguang Ren, Nigel Franciscus, Junhu Wang, and Bela Stantic

A Method for Detecting and Analyzing the Sentiment of Tweets Containing Conditional Sentences 177
Huyen Trang Phan, Ngoc Thanh Nguyen, Van Cuong Tran, and Dosam Hwang

Aggregating Web Search Results 189
Marek Kopel and Maksim Buben

Cross-Lingual Korean Speech-to-Text Summarization 198
HyoJeon Yoon, Dinh Tuyen Hoang, Ngoc Thanh Nguyen, and Dosam Hwang

On Some Approach to Evaluation in Personalized Document Retrieval Systems 207
Bernadetta Maleszka

Machine Learning and Data Mining

A Class-Cluster *k*-Nearest Neighbors Method for Temporal In-Trouble Student Identification. 219
Chau Vo and Hua Phung Nguyen

Multidimensional Permutation Entropy for Constrained Motif Discovery 231
Yomna Rayan, Yasser Mohammad, and Samia A. Ali

A LSTM Approach for Sales Forecasting of Goods with Short-Term Demands in E-Commerce. 244
Yu-Sen Shih and Min-Huei Lin

Detection of Rare Elements in Investigation of Medical Problems 257
Piotr Kulczycki and Damian Kruszewski

Cardiac Murmur Effects on Automatic Segmentation of ECG Signals for Biometric Identification: Preliminary Study 269
C. Duque-Mejía, M. A. Becerra, C. Zapata-Hernández, C. Mejia-Arboleda, A. E. Castro-Ospina, E. Delgado-Trejos, Diego H. Peluffo-Ordóñez, P. Rosero-Montalvo, and Javier Revelo-Fuelagán

An Approach to Estimation of Residential Housing Type Based on the Analysis of Parked Cars 280
Marcin Kutrzyński, Zbigniew Telec, Bogdan Trawiński, and Hien Cao Dac

Household Electric Load Pattern Consumption Enhanced Simulation by Random Behavior. 290
Alabbas Alhaj Ali, Doina Logofătu, Prachi Agrawal, and Sreshtha Roy

Anomaly Detection Procedures in a Real World Dataset by Using Deep-Learning Approaches. 303
Alabbas Alhaj Ali, Abdul Rasheeq, Doina Logofătu, and Costin Bădică

Developing a General Video Game AI Controller Based on an Evolutionary Approach 315
Kristiyan Balabanov and Doina Logofătu

Separable Data Aggregation by Layers of Binary Classifiers. 327
Leon Bobrowski and Magdalena Topczewska

Adaptation and Recovery Stages for Case-Based Reasoning Systems Using Bayesian Estimation and Density Estimation with Nearest Neighbors. 339
D. Bastidas Torres, C. Piñeros Rodriguez, Diego H. Peluffo-Ordóñez, X. Blanco Valencia, Javier Revelo-Fuelagán, M. A. Becerra, A. E. Castro-Ospina, and Leandro L. Lorente-Leyva

Feature Extraction Analysis for Emotion Recognition from ICEEMD of Multimodal Physiological Signals 351
J. F. Gómez-Lara, O. A. Ordóñez-Bolaños, M. A. Becerra, A. E. Castro-Ospina, C. Mejía-Arboleda, C. Duque-Mejía, J. Rodriguez, Javier Revelo-Fuelagán, and Diego H. Peluffo-Ordóñez

Using Fourier Series to Improve the Prediction Accuracy of Nonlinear Grey Bernoulli Model 363
Ngoc Thang Nguyen, Van Thanh Phan, and Zbigniew Malara

Learning Hierarchical Weather Data Representation for Short-Term Weather Forecasting Using Autoencoder and Long Short-Term Memory Models 373
Yaya Heryadi

Logo and Brand Recognition from Imbalanced Dataset Using MiniGoogLeNet and MiniVGGNet Models 385
Sarwo, Yaya Heryadi, Widodo Budiharto, and Edi Abdurachman

Decision Support and Control Systems

Selected Problems of Controllability of Semilinear Fractional Systems-A Survey 397
Artur Babiarz and Jerzy Klamka

A Data-Driven Approach to Modeling and Solving Academic Teachers' Competences Configuration Problem 408
Jarosław Wikarek and Paweł Sitek

PID Regulatory Control Design for a Double Tank System Based on Time-Scale Separation 420
Marian Blachuta, Robert Bieda, and Rafal Grygiel

Towards Formal, Graph-Based Spatial Data Processing: The Case of Lighting Segments for Pedestrian Crossings 431
Sebastian Ernst and Leszek Kotulski

Multi-agent Support for Street Lighting Modernization Planning 442
Adam Sędziwy, Leszek Kotulski, and Artur Basiura

An Application a Two-Level Determination Consensus Method in a Multi-agent Financial Decisions Support System 453
Adrianna Kozierkiewicz, Marcin Hernes, and Thanh Tung Nguyen

Implementing Smart Virtual Product Development (SVPD) to Support Product Manufacturing 464
Muhammad Bilal Ahmed, Cesar Sanin, and Edward Szczerbicki

PID Tuning with Neural Networks 476
Antonio Marino and Filippo Neri

Repeatable Trust Game – Preliminary Experimental Results 488
Anna Motylska-Kuzma, Jacek Mercik, and Aleksandra Sus

Modeling of Uncertainty with Petri Nets 499
Michal Kuchárik and Zoltán Balogh

A Collaborative Approach Based on DCA and VNS for Solving Mixed Binary Linear Programs 510
Sara Samir and Hoai An Le Thi

Adoption of Cloud Business Intelligence in Indonesia's Financial Services Sector 520
Elisa Indriasari, Suparta Wayan, Ford Lumban Gaol, Agung Trisetyarso, Bahtiar Saleh Abbas, and Chul Ho Kang

Stakeholder Impact on the Success and Risk of Failure of ICT Projects in Poland. 530
Kazimierz Frączkowski and Barbara Gładysz

Analysis of the Influence of ICT and Public Recognition on University Credibility 541
Irvan Santoso, Wayan Suparta, Agung Trisetyarso, Bahtiar Saleh Abbas, and Chul Ho Kang

Quantum Game-Based Recommender Systems for Disruptive Innovations . . . 552
Agung Trisetyarso and Fithra Faisal Hastiadi

Computer Vision Techniques

Matching Topological Structures for Handwritten Character Recognition 565
Daw-Ran Liou, Yang-En Chen, and Cheng-Yuan Liou

Enhancing the Resolution of Satellite Images Using the Best Matching Image Fragment 576
Daniel Kostrzewa, Pawel Benecki, and Lukasz Jenczmyk

Multi-scale Autoencoders in Autoencoder for Semantic Image Segmentation 587
John Paul T. Yusiong and Prospero C. Naval Jr.

Simultaneous Localization and Segmentation of Fish Objects Using Multi-task CNN and Dense CRF. 600
Alfonso B. Labao and Prospero C. Naval Jr.

Violent Crowd Flow Detection Using Deep Learning 613
Shakil Ahmed Sumon, MD. Tanzil Shahria, MD. Raihan Goni, Nazmul Hasan, A. M. Almarufuzzaman, and Rashedur M. Rahman

Drowsiness Detection in Drivers Through Real-Time Image Processing of the Human Eye. 626
Erick P. Herrera-Granda, Jorge A. Caraguay-Procel, Pedro D. Granda-Gudiño, Israel D. Herrera-Granda, Leandro L. Lorente-Leyva, Diego H. Peluffo-Ordóñez, and Javier Revelo-Fuelagán

Software Techniques to Reduce Cybersickness Among Users of Immersive Virtual Reality Environments 638
Kazimierz Choroś and Piotr Nippe

Semi-supervised Learning with Bidirectional GANs. 649
Maciej Zamorski and Maciej Zięba

Sharp Images Detection for Microscope Pollen Slides Observation 661
Aysha Kadaikar, Maria Trocan, Frédéric Amiel, Patricia Conde-Cespedes, Benjamin Guinot, Roland Sarda Estève, Dominique Baisnée, and Gilles Oliver

Databases and Intelligent Information Systems

Slowly Changing Dimension Handling in Data Warehouses Using Temporal Database Features 675
Thanapol Phungtua-Eng and Suphamit Chittayasothorn

Tackling Complex Queries to Relational Databases 688
Octavian Popescu, Ngoc Phuoc An Vo, Vadim Sheinin, Elahe Khorashani, and Hangu Yeo

Approximate Outputs of Accelerated Turing Machines Closest to Their Halting Point 702
Sebastien Mambou, Ondrej Krejcar, and Ali Selamat

Development of Seawater Temperature Announcement System for Improving Productivity of Fishery Industry 714
Yu Agusa, Takuya Fujihashi, Keiichi Endo, Hisayasu Kuroda, and Shinya Kobayashi

Big5 Tool for Tracking Personality Traits 726
Binh Thanh Nguyen and Dang Ngoc Dung

Comparative Analysis of Usability of Data Entry Design Patterns for Mobile Applications 737
Jakub Myka, Agnieszka Indyka-Piasecka, Zbigniew Telec, Bogdan Trawiński, and Hien Cao Dac

Author Index 751