

Contents

Extracting Association Rules from a Retail Database: Two Case Studies	1
R.S. João, M.C. Nicoletti, A.M. Monteiro and M.X. Ribeiro	
KNN++: An Enhanced K-Nearest Neighbor Approach for Classifying Data with Heterogeneous Views	13
Ying Xie	
Quantum Cryptography Trends: A Milestone in Information Security	25
W. Noor-ul-Ain, M. Atta-ur-Rahman, Muhammad Nadeem and Abdul Ghafoor Abbasi	
Multi-zone Building Control System for Energy and Comfort Management	41
Ee May Kan, Siew Leong Kan, Ngee Hoo Ling, Yvonne Soh and Matthew Lai	
ABC+ES: Combining Artificial Bee Colony Algorithm and Evolution Strategies on Engineering Design Problems and Benchmark Functions	53
Marco Antônio Florenzano Mollinetti, Daniel Leal Souza, Rodrigo Lisbôa Pereira, Edson Koiti Kudo Yasojima and Otávio Noura Teixeira	
System Essence of Intelligence and Multi-agent Existential Mappings	67
Zalimkhan Nagoev, Olga Nagoeva and Dana Tokmakova	
A Type-2 Fuzzy Concepts Lexicalized Representation by Perceptual Reasoning and Linguistic Weighted Average: A Comparative Study	77
Sahar Cherif, Nesrine Baklouti, Adel M. Alimi and Vaclav Snasel	

A New Ant Supervised-PSO Variant Applied to Traveling Salesman Problem. 87
 Sonia Kefi, Nizar Rokbani, Pavel Krömer and Adel M. Alimi

TETS: A Genetic-Based Scheduler in Cloud Computing to Decrease Energy and Makespan 103
 Mohammad Shojafar, Maryam Kardgar,
 Ali Asghar Rahmani Hosseinabadi, Shahab Shamshirband
 and Ajith Abraham

A Serious Game to Make People Aware of Behavioral Symptoms in Tourette Syndrome. 117
 Teresa Padilla, Alberto Ochoa and Lourdes Margain

Bimodality Streams Integration for Audio-Visual Speech Recognition Systems 127
 Noraini Seman, Rosniza Roslan, Nursuriati Jamil and Norizah Ardi

Similarity-Based Trust Management System: Data Validation Scheme 141
 Hind Al Falasi, Nader Mohamed and Hesham El-Syed

Reverse Engineering of Time-Delayed Gene Regulatory Network Using Restricted Gene Expression Programming 155
 Bin Yang, Wei Zhang, Xiaofei Yan and Caixia Liu

New Rules to Enhance the Performances of Histogram Projection for Segmenting Small-Sized Arabic Words. 167
 Marwa Amara, Kamel Zidi, Khaled Ghedira and Salah Zidi

Analyzing Genetic Algorithm with Game Theory and Adjusted Crossover Approach on Engineering Problems 177
 Edson Koiti Kudo Yasojima, Roberto Célio Limão de Oliveira,
 Otávio Noura Teixeira, Rodrigo Lisbôa and Marco Mollinetti

An Intelligent System for Road Moving Object Detection 189
 Mejdi Ben Dkhil, Ali Wali and Adel M. Alimi

Towards Improvement of Multinomial Classification Accuracy of Neuro-Fuzzy for Digital Forensics Applications 199
 Andrii Shalaginov and Katrin Franke

Multi-agent Architecture for Visual Intelligent Remote Healthcare Monitoring System. 211
 Afef Ben Jemaa, Hela Ltifi and Mounir Ben Ayed

Knowledge Visualization Model for Intelligent Dynamic Decision-Making 223
 Jihed Elouni, Hela Ltifi and Mounir Ben Ayed

Experimental Analysis of a Hybrid Reservoir Computing Technique 237
 Sebastián Basterrech, Gerardo Rubino and Václav Snášel

Face Recognition Using HMM-LBP 249
 Mejda Chihaoui, Wajdi Bellil, Akram Elkefi and Chokri Ben Amar

A Novel Security Architecture Based on Multi-level Rule Expression Language 259
 Samih Souissi, Layth Sliman and Benoit Charroux

On Analysis and Visualization of Twitter Data 271
 Fathelalem Ali and Yasuki Shima

Heuristic and Exact Approach for the Close Enough Ridematching Problem 281
 Allan F. Balardino and André G. Santos

Study on Inverse Dynamics of Full-Body Powered Pseudo-Anthropomorphic Exoskeleton Using Neural Networks 295
 Abhishek Arijit, Dilip Kumar Pratihar and Rathindranath Maiti

Comparison Between SAT-Based and CSP-Based Approaches to Resolve Pattern Mining Problems 307
 Akram Rajeb, Abdelmajid Ben Hamadou and Zied Loukil

Author Index 315



<http://www.springer.com/978-3-319-27220-7>

Hybrid Intelligent Systems

15th International Conference HIS 2015 on Hybrid
Intelligent Systems, Seoul, South Korea, November
16-18, 2015

Abraham, A.; Han, S.Y.; Al-Sharhan, S.A.; Liu, H. (Eds.)
2016, XIII, 316 p. 110 illus., 39 illus. in color., Softcover
ISBN: 978-3-319-27220-7