

Contents

Neural Network Inputs Selection for Breast Cancer Cells Classification	1
<i>Harsa Amylia Mat Sakim, Nuryanti Mohd. Salleh, Nor Hayati Othman</i>	
Cognitive Information Systems for Medical Pattern Analysis and Diagnosis Support Technologies	13
<i>Lidia Ogiela, Ryszard Tadeusiewicz, Marek R. Ogiela</i>	
Development of an Intelligent Facial Expression Recognizer for Mobile Applications	21
<i>Siu-Yeung Cho, Teik-Toe Teoh, Yok-Yen Ngwi</i>	
INTSOM: Gray Image Compression Using an Intelligent Self-Organizing Map	31
<i>Cheng-Fa Tsai, Jiun-Huang Ju</i>	
Learning a Selection Problem of Investment Projects and Capital Structure through Business Game	41
<i>Yasuo Yamashita, Hiroshi Takahashi, Takao Terano</i>	
Evolution Prospecction	51
<i>Luís Moniz Pereira, Han The Anh</i>	
A Proposal of Context-Aware Service Composition Method Based on Analytic Hierarchy Process	65
<i>Yusuke Koumoto, Hidetoshi Nonaka, Takuto Yanagida</i>	
Flexible Widget Layout Formulated as Fuzzy Constraint Satisfaction Problem	73
<i>Takuto Yanagida, Hidetoshi Nonaka</i>	

Modelling Probabilistic Causation in Decision Making	85
<i>Luís Moniz Pereira, Carroline Kencana Ramli</i>	
A Library Marketing System for Decision Making	97
<i>Toshiro Minami</i>	
Analysis of Four Wheeled Flexible Joint Robotic Arms with Application on Optimal Motion Design	107
<i>M.H. Korayem, H.N. Rahimi, A. Nikoobin</i>	
Finite Element Method and Optimal Control Theory for Path Planning of Elastic Manipulators	117
<i>M.H. Korayem, M. Haghpanahi, H.N. Rahimi, A. Nikoobin</i>	
Belief-Based Stability in Non-transferable Utility Coalition Formation with Uncertainty	127
<i>Chi-Kong Chan, Ho-fung Leung</i>	
Side-Effect Inspection for Decision Making	139
<i>Luís Moniz Pereira, Alexandre Miguel Pinto</i>	
Knowledge Mining with a Higher-Order Logic Approach	151
<i>Kittisak Kerdprasop, Nittaya Kerdprasop</i>	
A New Pruning Technique for the Fuzzy ARTMAP Neural Network and Its Application to Medical Decision Support	161
<i>Shahrul N.Y, Lakhmi Jain, C.P. Lim</i>	
Image Color Space Transform with Enhanced KLT	171
<i>Roumen Kountchev, Roumiana Kountcheva</i>	
Interoperable Intelligent Agents in a Dynamic Environment	183
<i>Mohammad Khazab, Jeffrey Tweedale, Lakhmi Jain</i>	
Multilingual Agents in a Dynamic Environment	193
<i>Jeffrey Tweedale, Lakhmi Jain</i>	
Defining a Decision-Support Framework in AC³M	203
<i>Angela Consoli, Jeff Tweedale, Lakhmi Jain</i>	
An Intelligent Decision Support System Using Expert Systems in a MAS	213
<i>Kamal Haider, Jeffrey Tweedale, Lakhmi Jain</i>	

Contents	XIII
Decentralized Real-Time Control Algorithms for an AGV System	223
<i>Alexander Klaas, Mark Aufenanger, Nando Ruengener, Wilhelm Dangelmaier</i>	
Adaptive Decision Support for Dynamic Environments	235
<i>Gloria Phillips-Wren</i>	
Evaluation of the Continuous Wavelet Transform for Feature Extraction of Metal Detector Signals in Automated Target Detection	245
<i>Minh Dao-Johnson Tran, Canicious Abeynayake</i>	
Hypertension Detection Using a Case-Based Reasoning Approach	255
<i>Kuang-Hung Hsu, Chaochang Chiu, Nan-Hsing Chiu, Po-Chi Lee, Wen-Ko Chiu, Thu-Hua Liu, Yi-Chou Juang, Chorng-Jer Hwang, Chi-I Hsu</i>	
Improving Medical Database Consistency with Induced Trigger Rules	265
<i>Nittaya Kerdprasop, Sirikanjana Pilabutr, Kittisak Kerdprasop</i>	
Factorization of Sparse Bayesian Networks	275
<i>Julio Michael Stern, Ernesto Coutinho Colla</i>	
Incorporating Hopfield Neural Networks into Ant Colony System for Traveling Salesman Problem	287
<i>Yu-Lin Weng, Chou-Yuan Lee, Zne-Jung Lee</i>	
Analysis and Diagnosis of Cardiovascular Diseases through the Paraconsistent Annotated Logic	295
<i>João Inácio da Silva Filho, Gilberto A.T.A. Holms, Gabriel V. Hurtado, Dorotéa V. Garcia</i>	
Hierarchical Forecasting with Polynomial Nets	305
<i>M.S. Lauretto, F. Nakano, C.A.B. Pereira, J.M. Stern</i>	
Autonomous Mobile Robot Emmy III	317
<i>Claudio Rodrigo Torres, Jair Minoro Abe, Germano Lambert-Torres, João Inácio Da Silva Filho, Helga Gonzaga Martins</i>	
Output Enhancement of Impulse Noise Filters by Edge Detection and Neuro-fuzzy Processing	329
<i>Yakup Yuksel, Mustafa Alci, M. Emin Yuksel</i>	

An Algebraic Version of the Monadic System C_1	341
<i>Jair Minoro Abe, Kazumi Nakamatsu, Seiki Akama</i>	
Some Three-Valued Temporal Logics for Future Contingents	351
<i>Seiki Akama, Kazumi Nakamatsu, Jair Minoro Abe</i>	
Introduction to Plausible Reasoning Based on EVALPSN	363
<i>Kazumi Nakamatsu, Toshiaki Imai, Jair M. Abe, Seiki Akama</i>	
Rough Set Reducts Based Classification	373
<i>Naohiro Ishii, Yongguang Bao, Yuta Hoki, Hidekazu Tanaka</i>	
Heterogeneous Multi-agents Learning Using Genetic Network Programming with Immune Adjustment Mechanism	383
<i>Hiroataka Itoh, Naoki Ikeda, Kenji Funahashi</i>	
Analysis of Asymmetric Friendship among Students from Class Attendance Records	393
<i>Nobuhiro Inuzuka, Toshitaka Kondo, Shuhei Yamamoto</i>	
Updating Background Image for Motion Tracking Using Particle Filter	405
<i>Yuji Iwahori, Wataru Kurahashi, Shinji Fukui, Robert J. Woodham</i>	
Driver Assistance Systems to Rate Drowsiness: A Preliminary Study	415
<i>Md. Shoaib Bhuiyan</i>	
Anomaly Foreground Detection through Background Learning in Video Surveillance	427
<i>Cheng-Yuan Tang, Yi-Leh Wu, Shih-Pin Chao, Wen-Chao Chen, Pan-Lan Chen</i>	
Adaptive Alarm Filtering by Causal Correlation Consideration in Intrusion Detection	437
<i>Heng-Sheng Lin, Hsing-Kuo Pao, Ching-Hao Mao, Hahn-Ming Lee, Tsuhan Chen, Yuh-Jye Lee</i>	
Anomaly Detection via Over-Sampling Principal Component Analysis	449
<i>Yi-Ren Yeh, Zheng-Yi Lee, Yuh-Jye Lee</i>	
Towards a New Medical Decision Support System with Bio-inspired Interpretive Structural Modelling	459
<i>Ikno Kim, Junzo Watada</i>	

Construct an Approximation Decision Model of Medical Record by Neural Networks - The Ophthalmology Department as an Example	467
<i>Yaw-Jen Lin, Chin-Dr Fan, Cheng-Chin Huang, Cheng-Yu Fan</i>	
A Multi Model Voting Enhancement for Newborn Screening Healthcare Information System	481
<i>Sung-Huai Hsieh, Po-Hsun Cheng, Sheau-Ling Hsieh, Po-Hao Chen, Yung-Ching Weng, Yin-Hsiu Chien, Zhenyu Wang, Feipei Lai</i>	
Design and Implementation of Mobile Electronic Medication Administration Record	493
<i>Sung-Huai Hsieh, I-Ching Hou, Ching-Ting Tan, Po-Chao Shen, Hui-Chu Yu, Sheau-Ling Hsieh, Po-Hsun Cheng, Feipei Lai</i>	
Customer Relationship Management in Healthcare Service – An Integrated DSS Framework for Patient Loyalty	509
<i>Chi-I Hsu, Pei-Lun Hsu, Chaochang Chiu</i>	
Applying Fuzzy TOPSIS Approach for Evaluating RFID System Suppliers in Healthcare Industry	519
<i>Tien-Chin Wang, Hsien-Da Lee, Po-Hsun Cheng</i>	
An Aspect of Decision Making in Rough Non-deterministic Information Analysis	527
<i>Hiroshi Sakai, Kohei Hayashi, Hiroshi Kimura, Michinori Nakata</i>	
A Value for Multi-alternative Games with Restricted Coalitions under the Equally Divided Spoils Assumption	537
<i>Satoshi Masuya, Masahiro Inuiguchi, Teruhisa Nakai</i>	
Variable Accessibility Models for Modal Logic on Topological Spaces	547
<i>Tetsuya Murai, Seiki Ubukata, Yasuo Kudo</i>	
A Heuristic Algorithm for Selective Calculation of a Better Relative Reduct in Rough Set Theory	555
<i>Yasuo Kudo, Tetsuya Murai</i>	
Rule Induction for Decision Tables with Ordered Classes	565
<i>Yoshifumi Kusunoki, Masanori Inoue, Masahiro Inuiguchi</i>	

Dynamic Index Fund Optimization by a Heuristic GA Method Based on Correlation Coefficients	575
<i>Yukiko Orito, Hisashi Yamamoto, Yasuhiro Tsujimura, Yasushi Kambayashi</i>	
Simulation Modeling of Emergence-of-Money Phenomenon by Doubly Structural Network	585
<i>Masato Kobayashi, Masaaki Kunigami, Satoru Yamadera, Takashi Yamada, Takao Terano</i>	
Detecting Environmental Changes through High-Resolution Data of Financial Markets	595
<i>Aki-Hiro Sato</i>	
A Stochastic Model for Pareto's Law and the Log-Normal Distribution under the Detailed Balance and Extended-Gibrat's Law	605
<i>Shouji Fujimoto, Masashi Tomoyose, Atushi Ishikawa</i>	
Effect of Reputation on the Formation of Cooperative Network of Prisoners	615
<i>Mieko Tanaka-Yamawaki, Taku Murakami</i>	
A Multi-agent Wideband Signal Detector	625
<i>John Hefferan</i>	
Bayesian Estimation of GARCH Model with an Adaptive Proposal Density	635
<i>Tetsuya Takaishi</i>	
Elucidation of Industrial Structure of the Japanese Economy through Visualization and Community Analysis	645
<i>H. Iyetomi, K. Kamehama, T. Iino, Y. Ikeda, T. Ohnishi, H. Takayasu, M. Takayasu</i>	
Author Index	653