

Contents

Preface	v
Organizing Committees	vii
Reviewers	viii
Experimental Investigations of Low Pass Filter Techniques for Sway Control of a Gantry Crane System	1
<i>M. A. Ahmad, F. R. Misran, M. S. Ramli and R. M. T. Raja Ismail</i>	
Comparative Study on the Influence of Mahalanobis Distance and Skin Color Range for Face Detection Using Adaboost	5
<i>Ong Guang Yi, Zulhadi Zakaria and Shahrel Azmin Suandi</i>	
Development of a Low Cost Self-Sensing Piezoresistive Microcantilever Biosensor and Read-out Circuitry for Measuring Salivary-Amylase Activity	9
<i>Nina Korlina Madzhi, Lee Yoot Khuan, Mohd Firdaus Abdullah and Anuar Ahmad</i>	
Development of Low Pass Filtering and Linearization for Piezoresistive Microcantilever Biosensing	14
<i>Mohd Firdaus Abdullah, Lee Yoot Khuan, Nina Korlina Madzhi and Anuar Ahmad</i>	
A Supervisory Loop to Remedy Actuator Saturation: Immune Approach	19
<i>Maryam Rashtian, Ghazanfar Shahgholian, Pegah Shafaghi and Mohammad Farahmand</i>	
Highly Noise-Tolerant Design of Digital Logic Gates Using Markov Random Field Modelling	24
<i>Jahanzeb Anwer, Usman Khalid, Narinderjit Singh, Nor H. Hamid and Vijanth S. Asirvadam</i>	
Research on the Derivation of Relations Predicate Methods for Complex Universal Quantifier	29
<i>Jishun Zhu, Shao Qian and Tong Shi</i>	
Current Mode Canonic OTA-C Universal Filter with Single Input and Multiple Outputs	32
<i>Abdul Qadir and Talat Altaf</i>	
Performance Measure of Drop Tail and RED Algorithm	35
<i>Sanjeev Patel and Pankaj Gupta and Ghanshyam Singh</i>	
DWDM Effects of Single Model Optical Fiber in Radio Over Fiber System	39
<i>Ehsan Dadrasnia and Faisal Rafiq Mahamd Adikan</i>	
Performance Analysis of Turbo Code for CDMA 2000 with Convolutional Coded IS-95 System in Wireless Communication System	42
<i>D. J. Shah, Vijay K. Patel and Himanshu A. Patel</i>	

Collecting Positive Instances of “instance-of” Relationship in the Persian Language	46
<i>Yousef Rastegari, Hassan Abolhassani, Bahareh Zibanezhad and Mohsen Sayadiharikandeh</i>	
A Comparative Analysis and Simulation of ALFC in Single Area Power System for Different Turbines	50
<i>Ghazanfar Shahgholian, Pegah Shafaghi and Homayoun Mahdavi-Nasab</i>	
The Electronic Purse Future Machine for a Commoner	55
<i>Srikar Gundabathula</i>	
Improvement of Test Management in BPMN with ARIS	59
<i>Sahar Yousefi Barforooshi, Solmaz Moradi Moghadam and R. Nasiri</i>	
State Space Modeling and Eigenvalue Analysis of the Permanent Magnet DC Motor Drive System	63
<i>Ghazanfar Shahgholian and Pegah Shafaghi</i>	
Algorithm for Proving Radical Inequalities	68
<i>Meijing Shan</i>	
Synthesis of Pencil Beam Pattern with a Multiple Concentric Circular Ring Array Antenna with Minimum Side Lobe Level and Fixed First Null Beamwidth	71
<i>A. Chatterjee, G. K. Mahanti and A. Chakraborty</i>	
The Reform of Teaching Management in Computer Experiments According to the Theory of CDIO	75
<i>Xuedou Yu</i>	
The Application Study of Heterogeneous Database Synchronization	79
<i>Xuedou Yu</i>	
Oscillations of Second Order Nonlinear Differential Equations with Distributed Type Deviating Arguments	82
<i>Jian Wang</i>	
Grey Evaluation and Optimization of UAV's Path Planning Method	85
<i>Zhang Da-Qiao, Zhao Jiu-Fen, Wang Ming-Hai and Niu Guo-Hua</i>	
Fuzzy-c-Means & Programming Approach for Life Estimation of Dielectrics Using Partial Discharges	89
<i>G. K. Joshi and Shyam Krishan Joshi</i>	
A Two-phased Gradient Technique for Budget Allocation: An Application to Data Collection Budget Allocation in Efficiency Measurement of DEA	93
<i>Wai Peng Wong, Loo Hay Lee and Wikrom Jaruphongsa</i>	
Introducing a Suggestive Dynamic Data Replication Algorithm	97
<i>Amir Mohammad Dastgheib</i>	

Application of Data Mining in Traffic Management: Case of City of Isfahan <i>Zahra Zamani, Mahmoud Pourmand and Mohammad Hossein Saraee</i>	102
A Novel Approach for Query Optimization in Sensor Networks <i>Ali Bagherinia, Behrouz Daneshyar, Salar TafkikiAlamdari and Akbar Bemana</i>	107
Classification of Brain Cancer Using Artificial Neural Network <i>Dipali M. Joshi, N. K. Rana and V. M. Misra</i>	112
Verifying $(k, 0, d)$ -extendability in Bipartite Graphs and Its Application <i>Xuelian Wen</i>	117
Embedded Parallel Systolic Architecture for Multi-filtering Techniques Using FPGA <i>Muataz H. Salih and M. R. Arshad</i>	122
A Proposal on Development of Intelligent PSO based Path Planning and Image Based Obstacle Avoidance for Real Multi Agents Robotics System Application <i>Abdullah Zawawi Mohamed, Sang Heon Lee, Mahfuz Aziz, Hung Yao Hsu and Wahid Md Ferdous</i>	128
Combination of fMLLR with Clustering and fMLLR with MLLR Clustering for Rapid Speaker Adaptation <i>Kasra Jafari, Farshad Almasganj and Yasser Shekofteh</i>	133
The Impact of Frequency on Radiation Pattern of Bowtie and Spiral Antenna based on RWG Elements <i>Mushlah Uddin Sarkar, Md. Asif Hossain, M. R. Amin and Md. Imdadul Islam</i>	137
Stochastic Mutation Approach for Grammar Induction using Genetic Algorithm <i>N. S. Choubey and M. U. Kharat</i>	142
Factor Weighing of Computer-Supported Collaborative Inquiry Learning Effect via AHP - A Case Approach <i>Jiang Xiaoguang and Ju Fanghui</i>	147
Measuring Students' Intention in Using Network Simulation Tools for Problem-based Learning using TAM <i>Nor Azimah Khalid, Mohd Faisal Ibrahim and Rozita Yunos</i>	153
Adoption of ICT at Hospital: A Case Study of UMMC <i>Amnah Bindakheel and Nik Rosnah</i>	157
Proposing an Approach for Routing Overhead Reduction in Mobile Ad Hoc Networks <i>T. Esmaili, M. Lari, Akbari, Eb. Jahani and S. Mohamadi</i>	161
Photoplethysmography Analysis of Artery Properties in Patients Presenting with Established Erectile Dysfunction <i>Yousef. K. Qawqzeh, M. A. Mohd Ali, M. Reaz and O. Maskon</i>	165

Designing and Characterization of 60 nm P-well MOSFET using Sentaurus TCAD Software	169
<i>Marlia Binti Morsin and Mohd Khairul Amriey</i>	
Speed Optimized LUT based 'K' Dimensional Reusable VQ Encoder Core	173
<i>Krupa R. Rasane and R. Srinivas Rao Kunte</i>	
An Improved ELGossiping Data Distribution Technique with Emphasis on Reliability and Resource Constraints in Wireless Sensor Network	179
<i>Ali Norouzi, Mehdi Dabbaghian, Alireza Hatamizadeh, Burak Berk Ustundag and Fatemeh Amiri</i>	
Emotion Extractor: A Methodology to Implement Prosody Features in Speech Synthesis	184
<i>M. B. Chanda and Rajiv Dharaskar</i>	
Opportunities and Challenges for E-Commerce in Malaysia: A Theoretical Approach	189
<i>Muhammad Jehangir Khan, P. D. D. Dominic and Alamgir Khan</i>	
Research on Dairy Cow Genetic Evaluation System based on SQL Server	193
<i>Qian Zhao and He Huang</i>	
Study on Water Quality Information Decision Support System	197
<i>Wenhong Wu, Kexin Zhang and Jiansi Yin</i>	
Research on Intelligent Enterprise Management Mode based on the Electronic Commerce	200
<i>Qiang Ma</i>	
A Cost Model of Embedded Mobile Real-time Database Management System	204
<i>Xiaogang Jiang and Huiqin Yang</i>	
Knowledge Discovery in Medical Datasets Using a Fuzzy Logic Rule Based Classifier	208
<i>E. Sivasankar and R. S. Rajesh</i>	
A Genetic Algorithm for a Vehicle Routing Problem on a Real Application of Bakery Delivery	214
<i>Bell Tunjongsirigul and Pisut Pongchairerks</i>	
A New Rotation-Invariant and Noise-Resistant Method for Texture Analysis and Classification	218
<i>Sedigheh Ghofrani and Mohammad Mahdi Feraidooni</i>	
Venn Requirement Language for User Requirement	223
<i>M. S. Roslina and A. Noraziah</i>	
Artificial Intelligent Strategy to Control Heart Rate Variability	228
<i>A. H. Beg, Noraziah Ahmad, Nawsher Khan, Ahmed N. Abd Alla, Muhammad Nubli and A. K. Lovely</i>	

Quad Crawler Robot Navigation Using Animal Walking Gait	232
<i>S. Parasuraman and Veronica Lestari Jauw</i>	
Coherent Risk Measures by the Option Pricing Method and the Empirical Study	238
<i>Yulian Fan, Dongfang Wang and Guodong Li</i>	
On the Expected Busy Period of An Interdependent M/M/1:(∞; Gd) Queueing Model Using Bivariate Poisson Process and Controllable Arrival Rates	243
<i>V. N. Maurya</i>	
Surface Layer Electrodynamics Structure According to the Meteorological State	247
<i>Anton Boldyrev, Gennady Kupovykh and Alexander Redin</i>	
Stacked Structures In_{0.5}Ga_{0.5}As/GaAs Quantum Dots: Growth and Characterization	252
<i>Zulkafli Othaman, Didik Aryanto, Abd Khamim Ismail, Mohamed Razman Yahya and Hariyadi Soetedjo</i>	
Psychometric Theory Applied to Questionnaire-based Appraisals on Software Process Assessments: An Initial Report	256
<i>Garcia Ivan and Andrade Gabriel</i>	
Decoupling Control of Electric Heating Furnace Temperature based on DRNN Neural Network	260
<i>Wen Ding-Du</i>	
Author Index	265