2008 11th International Conference on Computer and Information Technology

(ICCIT 2008)

Khulna, Bangladesh
24-27 December 2008

Pages 1-492

IEEE Catalog Number: CFP0817D-PRT
ISBN: 978-1-4244-2135-0

TABLE OF CONTENTS

Significant Cancer Risk Factor Extraction: An Association Rule Discovery Approach 1
Jesmin Nahar, Kevin S Tickle

A New Approach of Modified Transaction Reduction Algorithm for Mining Frequent Itemset 8
Ramaraj Eswara Thevar, Rameshkumar Krishnamoorthy

A Study of White Matter and Skull Inhomogeneous Anisotropic Tissue Conductivities on EEG Forward Head Modeling 14
Rezaul Bashar, Yan Li, Peng Wen

Selecting Signature Optical Emission Spectroscopy Variables Using Sparse Principal Component Analysis 21
Beibei Ma, Sean McLoone, John Ringwood, Niall Macgearailt

A Data Mining Approach for Finding Optimal Discount of Retail Assortments 27
Maryam Nafari, Jamal Shahrabi

Identifying Stock Similarity Based on Episode Distances 35
Abhi Dattasharma, Praveen Kumar Tripathi, Sridhar Gangadharpalli

Behavior-based Robotics And The Reactive Paradigm A Survey 43
L. De Silva, H. Ekanayake

Reversible Data Hiding using Increased Peak Histogram 51
T.C Thanuja, R Nagaraj, M.Uttara Kumari

Web Document Clustering Approach using WordNet Lexical Categories and Fuzzy Clustering 55
Tarek F. Gharib, Mohammed M. Fouad, Mostafa M. Aref

A Unifying Viewpoint of some Clustering Techniques Using Bregman Divergences and Extensions to Mixed Data Sets 63
Cecile Levasseur, Brandon Burdge, Ken Kreutz-Delgado, Uwe F. Mayer

Making Good Choices of Non-Redundant N-gramWords 71
Maria Fernanda Moura, Bruno Magalhaes Nogueira

gSVMT: Aggregating SVMs over a Dynamic Grid Learned from Data 79
Shaoning Pang, Tao Ban, Youki Kadobayashi, Nik Kasabov

Runtime Thread Rescheduling: An Extended Scheduling Algorithm to Enhance the Performance of the Gridbus Broker 87
Altaf Hussain, Abu Awal Md. Shoeb, Md. Abu Naser Bikas, Mohammad Khalad Hasan

An Efficient Clustering based Texture Feature Extraction for Medical Image 95
Marghny.H.Mohamed, M.M. Abdel Samea

Ant Colony Clustering by Expert Ants 101
Zahra Sadeghi , Mohammad Teshnehlab

Detection of faulty products using data mining 108
M. A. Karima, G. Russb, A. Islamc

City Planning and Development Using Geographic Information Systems 115
Mustafa A. Kamal

Resource Capability Discovery and Description Management System for Bioinformatics Data and Service Integration - An Experiment with Gene Regulatory Networks 120
Emdad Ahmed

Short Text Compression for Smart Devices 126
Md. Rafiqul Islam, S. A. Ahsan Rajon, Anonda Podder

Simulation and Bit Error Rate Performance Analysis of 4G OFDM Systems 132
Md. Sadek Ali, Md. Mahbubur Rahman, Md. Delowar Hossain, Md. Shariful Islam, Md. Moinul Islam

Crowd Behaviour Monitoring on the Escalator Exits 138
Md. Haidar Sharif, Nacim Ihaddadene, Chabane Djeraba

Smallest and Some New Equiprojective Polyhedra 145
Masud Hasan, Mohammad Monoar Hossain, Sabrina Nusrat, Alejandro Lopez-Ortiz

A comprehensive Analysis of Degree Based Condition for Hamiltonian Cycles 151
Md. Kamrul Hasan, Mohammad Kaykobad, Young-Koo Lee, Sungyoung Lee

The Study of Tracking Control of a Robotic Manipulator Actuated by Shape Memory Alloy 156
S. M. Mahfuzur Rahman, Kyoung Kwan Ahn

Lightpath Reconfigurations in IP-over-CWDM Networks with Stackable ROADMs 162
Md. Nooruzzaman, Yuichi Harada, Michio Hashimoto, Osanori Koyama, Yutaka Katsuyama

Developing a Model of E-governance for Urban and Rural Areas of Bangladesh 168
Gazi Zahirul Islam, Md. Ibrahim Khan, Md. Anas Boksh Mazady

Solar Cell Efficiency Improvement Using Compound Parabolic Concentrator and an Implementation of Sun Tracking System 174
Eklas Hossain, Riza Muhida, Ahmad Faris Dzulkipli, Khairul Azizi Abdul Rahman

Server Consolidation Using OpenVZ: Performance Evaluation 180
Mohuiddin Ahmed, Showayb Zahda, Majed Abbas

Secure Online Sealed Bid Auction 186
Md. Nazrul Islam, Mohammad Zahidur Rahman

An Artificial Ant Based Novel and Efficient Approach of Regular Geometric Shape Detection from Digital Image 192
Ayan Acharya, Kaushik Chattopadhyay, Deepyaman Maiti, Amit Konar

Comparison of GARCH and Neural Network Methods in Financial Time Series Prediction 198
Altaf Hossain, M. Nasser

Solutions to Motion Self-Occlusion Problem in Human Activity Analysis 204
Md. Atiqur Rahman Ahad, J.K. Tan, H.S. Kim, S. Ishikawa

Performance Analysis on an Efficient Human Motion Database with Various Motion Representations 210
S. M. Ashik Eftakhar, Joo Kooi Tan, Hyoungseop Kim, Seiji Ishikawa

A Data Hiding Capacity Estimation Technique for Biometric Images 216
Ghazaleh Sarbishei, Saied Hossaini Khayat

Design of a Fractional-order Self-tuning Regulator using Optimization Algorithms 221
Deepyaman Maiti, Mithun Chakraborty, Ayan Acharya, Amit Konar

An Intelligent Aviation Obstruction Warning light 227
Muhammad Mehedi Al Emran Hasan, Badal Chandra Sarker

Evaluation of TCP Performance over Mobile IP Wired-cum- Wireless Networks 233
Md. Asif Nashiry,Md. Abdullah-Al-Mahmud, Md. Mahbubur Rahman, Md. Nashid Anjum

Geospatial Web Services in Environmental Planning.....239
Iftikhar U. Sikder

SAGLET- Secure Agent Communication Model 245
Elhum Nusrat,Abu Shohel Ahmed,Gazi Mushfiqur Rahman, Lafifa Jamal

Sensitivity Analysis in Robust and Kernel Canonical Correlation Analysis.....250
Md. Ashad Alam, Mohammed Nasser, Kenji Fukumizu

An Improved Keyword Extraction Method Using Graph Based Random Walk Model 256
Md. Rafiqul Islam, Md. Rakibul Islam

Action Recognition with Various Speeds and timed-DMHI Feature Vectors.....261
Md. Atiqur Rahman Ahad, J.K. Tan, H.S. Kim, S. Ishikawa

Regression Diagnostics in Large and High Dimensional Data 267
A. A. M. Nurunnabi, Mohammed Nasser

Implementation of E-Governance: Only Way to Build a Corruption-Free Bangladesh 273
S. A. Ahsan Rajon, Sk. Ali Zaman

A System for Locating Users of WLAN using Dynamic Mapping in Indoor and Outdoor Environment-LOIDS 279
Karamtot Krishna Naik, M.N. Giri Prasad

Active Noise Control for Industrial Applications.....284
Syed Foysol Islam, A.H.M. Saiful Islam, M. M. Rajib Billah

Side Channel Attack Prevention for AES Smart.....289
Mohammad Zahidur Rahaman, Mohammad Akram Hossain

Performance Evaluation of DODE of a Voice/Data Integrated Wireless Mobile Network 294
H. M. Rahat , Runa Laila , Sabiha Rahman Juthy , Md. Imdadul Islam , M. R. Amin

Evaluation of Traffic Parameters of Multidimensional Traffic of a Combined Link Using a Tabular Method 298
Md. Imdadul Islam, Md. Shahriar Karim, J. K. Das, M. R. Amin

A New Weighted Centroid Localization Algorithm in Wireless Sensor Networks.....303
Yahya Forghani

An Efficient System for Recognition of Human Face in Different Expressions by Some Measured Features of the Face Using Laplacian Operator.....308
Abu Shamim Mohammad Arif, G. M. Atiqur Rahaman, Gautam Kumar Biswas, Syed Nurul Islam

A Fuzzy Logic-Based Adaptive Handoff Management Protocol for Next-Generation Wireless Systems 314
Presila Israt, Namvi Chakma, M. M. A. Hashem

Performance Maximization for Question Classification by SubSet Tree Kernel using Support Vector Machines.....320
Muhammad Arifur Rahman, Vitalie Scurtu

A Lossless Image Compression Technique Using Generic Peano Pattern Mask Tree.....326
Mohammad Kabir Hossain, Shams M. Imam, Khondker Shajadul Hasan, William Perrizo

Proposal for an Efficient Quantum Key Distribution System Using Entanglement 332
M.A. Bashar, M. A. Chowdhury, R. Islam, M. S. Rahman, S. K. Das

A Concurrent Approach to Clustering Algorithm with Applications to VLSI Domain 337
Shahid Md. Asif Iqbal, Mohammad Iftekhar Monir, Taufique Sayeed, Abu Hamed Mohammad Misbah-Uddin

Symbol Timing Estimation using Near ML Techniques and Statistical Performance Evaluation for Binary Communications 342
Md. Tofazzal Hossain, Sithamparanathan Kandeepan

An Energy-Efficient Data Security System for Wireless Sensor Network 348
Md. Anisur Rahman, Mitu Kumar Debnath

An Efficient Implementation Scheme for Multidimensional Online Analytical Processing 354
Nilufar Easmin, K. M. Azharul Hasan, Nilufa Parvin

Short Messaging Service (SMS) Based m-Banking System in Context of Bangladesh 360
Md. Subrun Jamil, Fouzia Ashraf Mousumi

An Application Program Interface for vBulletin 366
Saumen Seal Sami, Tazilur Rahman, Khondker Shajadul Hasan, Javed Siddique

Cutting a Cornered Convex Polygon Out of a Circle 370
Syed Ishtiaque Ahmed, Md. Ariful Islam, Masud Hasan

A New Distributed Evolutionary Computation Technique for Solving Large Number of Equations 376
Moslema Jahan, M. M. A Hashem, Gazi Abdullah Shahriar

MIMOME channel secrecy capacity 382
Mohammad Rakibul Islam, Jinsang Kim, Md. Shamsul Arefin

On the Design of an Effective Corpus for Evaluation of Bengali Text Compression Schemes 388
Md. Rafiqul Islam, S. A. Ahsan Rajon

An Energy Saving Program for Bangladesh, for Reducing Load Shedding, and for Continuity of Power for IT Sector 394
Shahriar Khan

Performance evaluation of a wireless Orthogonal Frequency Division Multiplexing system under various concatenated FEC channel-coding schemes 399
Md. Dulal Haque, Shaikh Enayet Ullah, Md.Razu Ahmed

A study of major Mobile payment systems' functionality In Europe 403
Shahriyar Mohammadi, Hediye Jahanshahi

Achieving Guaranteed Performance on Computational Grid 409
Ajanta De Sarkar, Dibyajyoti Ghosh, Rupam Mukhopadhyay, Nandini Mukherjee

Neural Network and Genetic Algorithm Approaches for Forecasting Bangladeshi Monsoon Rainfall 415
Shipra Banik, Farah Habib Chanchary, Khodadad Khan, Rifat Ara Rouf, Mohammed Anwer

A Cost Effective Multi-granular Location Information Strategy for MANET 421
Koushik Majumder, S. R. Biradar, Subir Kumar Sarkar

On Hot-Spot Traffic Pattern of TESH Network 427
M.M. Hafizur Rahman, Yasushi Inoguchi, Yukinori Sato, Yasuyuki Miura, Susumu Horiguchi

An Effective Term Weighting Method Using Random Walk Model for Text Classification 433
Md. Rafiqul Islam, Md. Rakibul Islam

QoS based Fair Load-Balancing: Paradigm to IANRA Routing Algorithm for Wireless Networks (WNs) 437
Ayyoub Akbari Moghanjoughi , Sabira Khatun, Borhanuddin M. Ali, Raja S. A. R. Abdullah

Codebook Design Method for Speaker Identification based on Genetic Algorithm 443
Md. Rabiul Islam, Md. Fayzur Rahman, Md. Ruhul Amin, Md. Shahid Uz Zaman

Analysis and Synthesis of Bangla Dental Consonants.....448
Syed Akhter Hossain, M. Lutfar Rahman, Farruk Ahmed

Analysis of Broadband Slotted Microstrip Patch Antenna.....453
Mohammad Tariqul Islam, Mohammed Nazmus Shakib, Norbahiah Misran, Baharudin Yatim

A Corpus-based Evaluation of Lexical Components of a Domain-specific Text to Knowledge Mapping Prototype.....457
Rushdi Shams, Adel Elsayed

Comparisons of Maximum System Lifetime in Diverse Scenarios for Body Sensor Networks.....463
Md. Nazrul Islam Mondal, Md. Shahid Uz Zaman, Abdullah Al Masud, Md. Jahangir Alam

The opportunities and challenges of using ICT by State Owned Enterprises in Bangladesh: Case of SOEs under Privatization Commission.....469
Ahsanullah M Dewan, Saifullah M Dewan, Shams Ara Nazmin

Layer-2 Protocol Adaptation Method to Improve Fast Handoff for Mobile IPv6 Vertical Handoffs.....475
Vahid Solouk, Borhanuddin M. Ali, Sabira Khatun, Daniel Wong, M. Adzir Mahdi

On the Minimization of Complete Test Set of Reversible k-CNOT Circuits for Stuck-at Fault Model.....481
Muhammad Ibrahim, Ahsan Raja Chowdhury, Hafiz Md. Hasan Babu

Parallel Performance of Domain Decomposition Method on Distributed Computing Environment.....487
A.M.M.Mukaddes, Atsushi Uragami

Decision Tree Based Routine Generation (DRG) Algorithm: A Data Mining Advancement to Generate Academic Routine for Open Credit System.....493
Md. Ashiqur Rahman, Shafaat Sheik Giasuddin, Rashedur Rahman

Analysis of Antennas for the Wireless Communication and Radar Applications.....499
Md. Osman Goni, Abu Md. Numan-Al-Mobin, Md. Hasanur Rahman

Extended Algorithm for Spatial Characterization and Discrimination Rules.....505
Md. Rashidul Hasan, Md. Zakir Hossain, Fahim Md. Chowdhury, Mohammad Khalad Hasan

BER Performance of Coded MSK/Multi-channel CDMA Fourth Generation Synchronous Downlink Cellular Systems in the Presence of MUI and FO.....511
M. Abou El-Nasr

Amplitude Banded Technique and Parallel Structure for Godard and Sato Algorithms of Blind Channel Equalization.....517
Muhammad Lutfor Rahman Khan, Mohammed H. Wondimagegnehu, Tetsuya Shimamura

Routing Algorithm for Vertically Stacked Optical Banyan Networks with the Time Complexity O(N) using Pipelined Processors.....522
Md. Mamun-ur-Rashid Khandker

Automatic Life-Logging: A novel approach to sense real-world activities by environmental sound cues and common sense.....528
Mostafa Al Masum Shaikh, Md. Khademul Islam Molla, Keikichi Hirose

An Approach to Recognize Handwritten Bengali Numerals for Postal Automation.....534
Md. Saidur Rahman, G. M. Atiqur Rahaman, Asif Ahmed, G. M. Salahuddin

Intelligent Video Surveillance for Monitoring Fall Detection of Elderly in Home Environments.....540
Homa Foroughi, Baharak Shakeri Aski, Hamidreza Pourreza

Isolating Significant Phrases in Common Natural Language Queries to Databases.....546
Mohammad Moinul Hoque, Md. Shahriar Mahbub, S.M. Abdullah Al-Mamun

Emotion-Driven Learning Agent for Setting Rich Presence in Mobile Telephony.....552
Sumanta Saha, Rumana Quazi

Low-Cost Realization of Toffoli Gate for the Low-Cost Synthesis of Quantum Ternary Logic Functions.....558
Md. Mehedi Hasan

Structural Operational Semantics of Packages in Java.....563
Abdullah Al Farook, Mohammad Shamsul Arefin, Md. Moshiul Hoque

Two-Level Dictionary-Based Text Compression Scheme.....569
Md. Ziaul Karim Zia, Dewan Md. Fayzur Rahman, Chowdhury Mofizur Rahman

A New SS7-SIGTRAN protocol Interchanger Software and Hardware to Implement an Improved Distributed Database Based ATM Network Using Existing IP Network.....575
M. S. Munir, K. Ahmed, A.S.M. Shihavuddin, S. M. Nizamuddin, M. J. Sarker

Design and Implementation of Microprocessor Based Electronic Voting System.....581
Muhammad Raisul Alam, Md. Masum, Md. Mostafizur Rahman, Md. Arifur Rahman

Automated Digital Archive for Land Registration and Records.....587
Mabruka Toaha, Shahriar Khan

Face Recognition using Gabor Filters.....593
Md. Tajmilur Rahman, Md. Alamin Bhuiyan

Meliorated Approach for Extracting Bilingual Terminology from Wikipedia.....599
Anand Gupta, Akhil Goyal, Aman Bindal, Ankuj Gupta

Using Log Likelihood Relation for BER Analysis of QAM in Space Diversity.....605
Md.Zahangir Alam, Chowdhury Sajadul Islam, Md Zahangir Alom, M. Abdus Sobhan

Generation of Random Channel Specifications for Channel Routing Problem.....611
Achira Pal , Tarak N. Mandal, Alak K. Datta, Debojit Kundu, Rajat K. Pal

Vision System for Human-Robot Interface.....617
Md. Ezharul Islam, Nasima Begum, Md. Al-Amin Bhuiyan

A Crosstalk Free Routing Algorithm of Generalized Recursive Non-blocking Network.....622
Most Arjuman Sultana, Gita Chowdhury, M. M. Hafizur Rahman

Learning Intrusion Detection Based on Adaptive Bayesian Algorithm.....628
Dewan Md. Farid, Mohammad Zahidur Rahman

Comparing FLV and MPEG4 (H.264/AVC) Multimedia File Format with Wireless Network Parameters.....633
Mehedi Mahmud, Sadia Monir, Tanjila Khan, Mohammad Abdur Rahim Mustafa, Hasan Sarwar

Lower Bound on Blocking Probability for Vertically Stacked Optical Banyan Networks with Given Crosstalk Constraint.....638
Basra Sultana, M. R. Khandker

Performance of Fast Routing Algorithm for Vertically Stacked Optical Banyan Networks with Link Failures and Given Crosstalk Constraint.....643
Basra Sultana, M. R. Khandker

Direction of Arrival Algorithms for Adaptive Beamforming in Next Generation Wireless Systems.....649
Mohammad Ismat Kadir, Md. Shadiul Hoque, Saiful Islam

A Combined Local-Global Optical Flow Approach for Cranial Ultrasonogram Image Sequence Analysis 654
Mohiuddin Ahmad, Taohida Taslima, Lutfunnesa Lata, Masayoshi Yamada

The Channel Capacity of a GSM Frequency Hopping Network with Intelligent Underlay-Overlay 660
Md. Majharul Islam Rajib, Wahida Nasrin

Genetic Algorithm Based Synthesis of Ternary Reversible/Quantum Circuit 665
Rashida Khanoma, Tahseen Kamalb, Mozammel H. A. Khan

Analytical Performance Evaluation of Space Time Coded MIMO OFDM Systems Impaired by Timing Jitter 671
M. R. H. Mondal, S. P. Majumder

Cell Database Based Time Specific Resource Reservation Scheme 677
S. M Didar-Al- Alam, Md. Nazmul Hasan, Md. Mahfuzul Islam, Akramul Azim

New Methodologies for High Level Modeling and Synthesis of Low Density Parity Check Decoders 683
Syed Mahfuzul Aziz, Sunil Sharma

Efficient Generation of Combinatorial Families 689
Md. Shariful Islam Bhuyan, Md. Saidur Rahman

High-speed distance measurement between moving vehicles with NIR-LED markers 695
M. Fukuzawa, H. Hama, N. Nakamori, M. Yamada

An Algorithm for Segmenting Modifiers from Bangla Text 700
Nasreen Akter, Saima Hossain, Md. Tajul Islam, Hasan Sarwar

Density Based Clustering Technique For Efficient Data Mining 706
Md. Asikur Rahman, A.K.M Rasheduzzaman Chowdhury, Daud Md. Jamilur Rahman, Abu Raihan Mostofa Kamal

Development of a Highly Optimized Preemptive Real Time Operating System (pRTOS) 711
*Md. Al Mehedi Hasan, Shamim Ahmad**

SEI and SHI Representations for Human Movement Recognition 715
Mohiuddin Ahmad, Md. Zulfikar Hossain

Design and Construction of Direct Sequence Spread Spectrum CDMA Transmitter and Receiver 721
M. Habib Ullah, Akhmad Unggul Priantoro, M. Jasim Uddin

Comparative performance analysis of DSR and AODV protocol based on Mobility factor 727
A. S. M. Ashique Mahmood, Mohammad Shahid Hossain, Faisal Aman Aziz

Performance Comparison of IPv4 and IPv6 on Various Windows Operating Systems 732
Shaneel Narayan, Samad S. Kolahi, Yonathan Sunarto, Du D. T. Nguyen, Paul Mani

An Empirical Framework for Translating of Phrasal Verbs of English Sentence into Bangla 738
Mohammed Moshiul Hoque, Md Mokaddem Ahamad, Mohammad Shamsul Arefin, Md. Monjur-Ul-Hasan, Md. Gahangir Hossain

Generation of Mountain Ranges by Modifying a Controlled Terrain Generation Approach 744
K. Raiyan Kamal, M. Kaykobad

File Sharing in Advanced Collaborating Environment: Node Registration & Cache Optimization Techniques 750
Md. Rezwanur Rahman, Md. Ali Ashik Khan, Tamkin Khan Avi, Mohammad Rezwanul Huq

A Machine Vision Based Automatic System for Real Time Recognition and Sorting of Bangladeshi Bank Notes 756
Raihan Ferdous Sajal, Mohammed Kamruzzaman, Faruq Ahmed Jewel

An HPSG Analysis of Arabic Passive 759
Md. Shariful Islam Bhuyan, Reaz Ahmed

Cluster Analysis of Microarray data of Shewanella oneidensis 764
Sharmin Nilufar, Jannatul Ferdousi Ara

On the Multi-Channel Noise Cancellation Using Beamforming Algorithm 770
Md. Zahangir Alom, Md. Zahangir Alam, M. Abdus Sobhan

A New Approach to Wrap Legacy Programs into Web Services 776
Saeed Parsa, Leila Ghods

A New Proposal for Choosing a Deflection Link in a Deflection 782
M. Atiqur Rahman, M. Tanvir Hossain, Shahed Anwar

End-to-End Mobility Management Solutions for TCP: An Analysis 788
Peer Azmat Shah, Muhammad Yousaf

Dynamic Communication Performance of a TESH Network under the Nonuniform Traffic Patterns 794
M.M. Hafizur Rahman, Yasushi Inoguchi, Yukinori Sato, Yasuyuki Miura, Susumu Horiguchi

WalkSAT Approach in Solving The Staff Transfer Problem 800
Sriyankar Acharyya

A Novel Fuzzy Method to Traffic Light Control Based on Unidirectional Selective Cellular Automata for Urban Traffic 806
Moein Shakeri, Hossein Deldari, Alireza Rezvanian, Homa Foroughi

A Least Square Approach for TDOA/AOA Wireless Location in WCDMA System 812
Mohammad Nur-A-Alam, Mohammed Mezbaul Haque

Distortion Measurement Using Arc-Length-Parameterisation within a Vertex-Based Shape Coding Framework 817
Ferdous Ahmed Sohel, Mohammed Bennamoun

Bangla Vowel Sign Recognition by Extracting the Fuzzy Features 823
Mohammad Sarwar Kamal, Mohammed Moshiul Hoque, Md. Monjur Ul Hasan, Mohammad Shamsul Arefin

Speech Enabled Operating System Control 829
Md. Abdul Kader, Biswajit Singha, Md. Nazrul Islam

Peer-to-Peer Mobile Applications Using JXTA/JXME 834
Tahmina Tahsin, Lazeeb Faiz Choudhury, Md. Lutfur Rahman

Time-Frequency Representation of Audio Signals Using Hilbert Spectrum with Effective Frequency Scaling 840
Md. Khademul Islam Molla, Mostafa Al Masum Shaikh, Keikichi Hirose

Connecting Telephone Exchange Centers over Metro Ethernet Networks by using Diffserv-MPLS 846
Ghasem Mirjalily, Parisa Bastani, S.M.T. Almodarresi

Rice Disease Identification using Pattern Recognition Techniques 852
Santanu Phadikar, Jaya Sil

Security Enhancement of MD5 Hashed Passwords by Using the Unused Bits of TCP Header 856
Md. Didarul Alam Chawdhury, A.H.M. Ashfak Habib

Design of an Interactive Bangla Mobile Keypad Based on Ergonomics 860
Muhammad Raisul Alam, Md. Masum, Shafiul Hasan Md. Tareq, Mostafa Wasiuddin Numan

A Practical Analysis of the Robustness and Stability of the Network Stack in Smartphones 865
Sheikh Mahbub Habib, Cyril Jacob, Tomas Olovsson

Prediction of the Density of Active Wireless Device Using Markov Model 871
MD.Osman Gani, Iftekhar Jahan Mehedi, Mehnaz Seraj

Crosstalk and Bit Error Rate Performance of a Proposed Optical Cross-Connect Topology 876
Md. Prince Hossen, Md. Abubakar Siddique, Md. Rafiqul Islam

Recurrent Neural Network Classifier for Three Layer Conceptual Network and Performance Evaluation 881
Md. Khalilur Rhaman, Tsutomu Endo

Performance Investigation of Earth-to-Satellite Microwave Link Due to Rain Fade in Bangladesh 887
Md. Rafiqul Islam, Md. Arafatur Rahman, Farhat Anwar, Md. Mahfujur Rashid

A Trust-Based Distributed Data Fault Detection Algorithm for Wireless Sensor Networks 893
Zahra Taghikhaki, Mohsen Sharifi

Variability Model and Management for Web Service: a Petri Net Based Approach 899
Li Xingyu, Hu Hao, Lü Jian

Feasibility of PKC in Resource-Constrained Wireless Sensor Networks 905
Al-Sakib Khan Pathan, Choong Seon Hong

A Calculus for Composite Authorities' Policy Derivation in Shared Domains of Pervasive Computing Environments 913
Morteza Amini, Rasool Jalili

A Grid-Enabled Framework of Expertise Search Engine Using Web-Based Online Communities 921
Mohammad Mehedi Hassan, Pil-Woo Lee, Eui-Nam Huh

Extensive Video Quality Evaluation: A Scalable Video Testing Platform 929
Nick Vercammen, Nicolas Staelens, Alexis Rombaut, Brecht Vermeulen, Piet Demeester

Disassembling SLAs for Follow-Up Processes in an SOA System 937
Chih-Hao Hsu, Yun-Wei Liao, Chien-Pang Kuo

A History Based Semantic Aware Access Control Model Using Logical Time 943
Ali Noorollahi Ravari, Morteza Amini, Rasool Jalili, Jafar Haadi Jafarian

A new adaptive routing approach based on Ant Colony Optimization (ACO) for Ad hoc Wireless Networks 951
Niaz Morshed Chowdhury, Syed Murtoza Baker, Ershadul H. Choudhury

Capacity Based Channel Assignment in Multi-Interface Wireless Mesh Networks 957
Mahmudur Rahman, Anjali Agarwal, Ayoub Alsarahn

Anycast Routing in Delay Tolerant Networks Using Genetic Algorithms for Route Decision 965
Ederson Rosa da Silva, Paulo Roberto Guardieiro

LCRACO – A New Load and Congestion Controlled Routing Based on Ant Colony Optimization 972
Rituparna Chaki, Ditipriya Sinha

Exploring Wireless Device Driver Vulnerabilities 978
Victor Agapov, Syed (Shawon) M. Rahman

Energy-Efficient TDMA MAC Protocol for Wireless Sensor Networks Applications.....985
G. M. Shafiullah, Adam Thompson, Peter J Wolfs, Shawkat Ali

Author Index