Proceedings

2009 International Conference on Computer Engineering and Technology

January 22 - 24, 2009
Singapore

Sponsored by

International Association of Computer Science & Information Technology

Los Alamitos, California
Washington • Tokyo
# TABLE OF CONTENTS

Overlapping Non-Dedicated Clusters Architecture ................................................................. 1  
*Martin Štava, Pavel Tvrdík*

To Determine the Weight in a Weighted Sum Method for Domain-Specific Keyword Extraction ........................................................................................................... 9  
*Wenshuo Liu, Wenxin Li*

Flow-Based Description of Conceptual and Design Levels..................................................... 14  
*Sabah Al-Fedaghi*

A Method of Query over Encrypted Data in Database .............................................................. 21  
*Lianzhong Liu, Jingfen Gai*

Traversing Model Design Based on Strong-Association Rule for Web Application Vulnerability Detection ..................................................................................................... 26  
*Zhenyu Qi, Jing Xu, Dawei Gong, He Tian*

Attribute-Based Relative Ranking of Robot for Task Assignment ......................................... 30  
*B.B. Choudhury, B.B. Biswal, R.N. Mahapatra*

A Subjective Trust Model Based on Two-Dimensional Measurement .................................. 35  
*Chaowen Chang, Chen Liu, Yuqiao Wang*

A Genetic Algorithm Approach for Optimum Operator Assignment in CMS ...................... 40  
*Ali Azadeh, Hamrah Kor, Seyed-Morteza Hatefi*

Dynamic Adaption in Composite Web Services Using Expiration Times ......................... 45  
*Xiaohao Yu, Xueshan Luo, Honghui Chen, Dan Hu*

An Emotional Intelligent E-learning System Based on Mobile Agent Technology .............. 49  
*Zhiliang Wang, Xiangjie Qiao, Yinggang Xie*

Audio Watermarking for DRM Based on Chaotic Map ......................................................... 53  
*B. Lei, I.Y. Soon*

Walking Modeling Based on Motion Functions ...................................................................... 58  
*Hao Zhang, Zhijing Liu*

Preprocessing and Feature Preparation in Chinese Web Page Classification .................... 62  
*Weitong Huang, Luxiong Xu, Yanmin Liu*

High Performance Grid Computing and Security through Load Balancing ..................... 66  
*V. Sugavanam, V. Prasanna Venkatesh*

Research of the Synthesis Control of Force and Position in Electro-Hydraulic Servo System ......................................................................................................................... 71  
*Yadong Meng, Changchun Li, Hao Yan, Xiaodong Liu*

Features Selection Using Fuzzy ESVDF for Data Dimensionality Reduction .................... 76  
*Safaaz Zaman, Fahed Karray*

PDC: Propagation Delay Control Strategy for Restricted Floating Sensor Networks .......... 83  
*Xiaodong Liu*

Fast and High Quality Temporal Transcoding Architecture in the DCT Domain for Adaptive Video Content Delivery ................................................................. 86  
*Vinay Chander, Aravind Reddy, Shripakash Gaurav, Nishant Khanwalkar, Manish Kakhani, Shashikala Tapaswi*
Electricity Demand Forecasting Based on Feedforward Neural Network Training by a Novel Hybrid Evolutionary Algorithm ................................................................. 93
   Wenyu Zhang, Yuanyuan Wang, Jianzhou Wang, Jinzhao Liang

Investigation on the Behaviour of New Type Airbag ................................................................. 98
   Hu Lin, Liu Ping, Huang Jing

Performance Evaluation of PNtMS: A Portable Network Traffic Monitoring System on Embedded Linux Platform........................................................................ 103
   Mostafijur Rahman, Zahereel Ishwar Abdul Khalib, R.B. Ahmad

PB-GPCT: A Platform-Based Configuration Tool ......................................................................... 109
   Huiqiang Yan, Runhua Tan, Kangyun Shi, Fei Lu

A Feasibility Study on Hyperblock-Based Aggressive Speculative Execution Model ................. 114
   Ming Cong, Hong An, Yongqing Ren, Canming Zhao, Jun Zhang

Parallel Method for Discovering Frequent Itemsets Using Weighted Tree Approach .................. 119
   Preetham Kumar, Ananthanarayana V S

Optimized Design and Implementation of Three-Phase PLL Based on FPGA ................................. 124
   Yuan Huimei, Sun Hao, Song Yu

Research on the Data Storage and Access Model in Distributed Environment ............................. 129
   Wuling Ren, Pan Zhou

An Effective Classification Model for Cancer Diagnosis Using Micro Array Gene Expression Data ........................................................................................................ 132
   V. Saravanan, R. Mallika

Study and Experiment of Blast Furnace Measurement and Control System Based on Virtual Instrument ....................................................................................................... 137
   Shufen Li, Zhihua Liu

A New Optimization Scheme for Resource Allocation in OFDMA Based WiMAX Systems .......... 140
   Arijit Ukil, Jaydip Sen, Debasis Bera

An Integration of CoTraining and Affinity Propagation for PU Text Classification ........................ 145
   Na Luo, Fuyu Yuan, Wanli Zuo

Ergonomic Evaluation of Small-Screen Leading Displays on the Visual Performance of Chinese Users ........................................................................................................ 150
   Yu-Hung Chien, Chien-Cheng Yen

Curvature-Based Feature Extraction Method for 3D Model Retrieval ....................................... 154
   Yujie Liu, Xiaolan Yao, Zongmin Li

A New Method for Vertical Handoff between WLANs and UMTS in Boundary Conditions ........ 159
   Majid Fouladian, Faramarz Hendessi, Alireza Shafieinejad, Morteza Rahimi, Mahdi M. Bayat

Research on Secure Key Techniques of Trustworthy Distributed System .................................. 165
   Ming He, Aiqun Hu, Hangping Qiu

   Zheng He, Jingxia Yue, Haruki Ueno

Implementation and Improvement Based on Shear-Warp Volume Rendering Algorithm ............ 175
   Li Guo, Xie Mei

Conferencing, Paging, Voice Mailing via Asterisk EPBX ......................................................... 179
   Ale Imran, Mohammed A. Qadeer

A New Mind Evolutionary Algorithm Based on Information Entropy ......................................... 184
   Yuxia Qiu, Keming Xie
An Encapsulation Structure and Description Specification for Application Level Software Components ................................. 188  
Jin Guojie, Yin Baolin

Fault Detection and Diagnosis of Continuous Process Based on Multiblock Principal Component Analysis ........................................ 193  
Libo Bie, Xiangdong Wang

Strong Thread Migration in Heterogeneous Environment .................................................................................. 198  

A DSP-Based Active Power Filter for Three-Phase Power Distribution Systems ......................................... 203  
Ping Wei, Zhixiong Zhan, Houquan Chen

Access Control Scheme for Workflow .................................................................................................................. 208  
Lijun Gao, Lu Zhang, Lei Xu

A Mathematical Model of Interference between RFID and Bluetooth in Fading Channel ................................. 211  
Junjie Chen, Jianqiu Zeng, Yuchen Zhou

Optimization Strategy for SSVEP-Based BCI in Spelling Program Application .............................................. 216  
Indar Sugiarto, Brendan Allison, Axel Gräser

A Novel Method for the Web Page Segmentation and Identification ................................................................. 220  
Jing Wang, Zhijing Liu

Disturbance Observer-Based Variable Structure Control on the Working Attitude Balance Mechanism of Underwater Robot .................................................................................................................. 223  
Min Li, Heping Liu

Adaptive OFDM Vs Single Carrier Modulation with Frequency Domain Equalization ..................................... 229  
Inderjeet Kaur, Kamal Thakur, M. Kulkarni, Daya Gupta, Prabhjyot Arora

A Bivariate C1 Cubic Spline Space on Wang’s Refinement .................................................................................. 234  
Huan-Wen Liu, Wei-Ping Lu

Fast Shape Matching Using a Hybrid Model ........................................................................................................ 238  
Gang Xu, Wenxian Yang

A Multi-Objective Genetic Algorithm for Optimization of Cellular Manufacturing System ................................. 243  
H. Kor, H. Iranmanesh, H. Haleh, S.M. Hatefi

A Formal Mapping between Program Slicing and Z Specifications .................................................................... 248  
Fangjun Wu

Modified Class-Incremental Generalized Discriminant Analysis ........................................................................ 253  
Yunhui He

Controlling Free Riders in Peer to Peer Networks by Intelligent Mining .............................................................. 258  
Ganesh Kumar, M, Arun Ram. K, A. R. Ananya

Servo System Modeling and DSP Code Autogeneration Technology for Open-CNC ............................................. 263  
Shukun Cao, Heng Zhang, Li Song, Changsheng Ai, Xiangbo Ze

Extending Matching Model for Semantic Web Services ..................................................................................... 267  
Alireza Zohali, Kamran Zamanifar, Naser Nematabakhsh

Sound Absorption Measurement of Acoustical Material and Structure Using the Echo-Pulse Method .................................................................................................................................................. 272  
Liang Sun, Hong Hou, Liying Dong, Fangrong Wan

Parallel Design of Cross Search Algorithm in Motion Estimation ........................................................................ 277  
Fan Zhang
Influences of DSS Environments and Models on Current Business Decision and Knowledge Management ..........................................................282
Fazle Munim, Fatima Binte Zia

A Method for Transforming Workflow Processes to CSS ..........................................................286
Jing Xiao, Guo-qing Wu, Shu Chen

An Empirical Approach of Delta Hedging in GARCH Model .........................................................291
Qian Chen, Chengzhe Bai

Multi-Objective Parameter Optimization Technology for Business Process Based on Genetic Algorithm ..........................................................296
Bo Wang, Li Zhang, Yawei Tian

Analysis and Design of an Access Control Model Based on Credibility .............................................300
Chaowen Chang, Yuqiao Wang, Chen Liu

Modeling of Rainfall Prediction over Myanmar Using Polynomial Regression ................................304
Wint Thida Zaw, Thinn Thu Naing

New Similarity Measure for Restricted Floating Sensor Networks ......................................................309
Yuan Feng, Xiaodong Liu, Xiangqian Ding

3D Mesh Skeleton Extraction Based on Feature Points .....................................................................314
Faming Gong, Cui Kang

Pairings Based Designated Verifier Signature Scheme for Three-Party Communication Environment .............................................................................318
Han-Yu Lin, Tzong-Sun Wu

A Novel Shared Path Protection Scheme for Reliability Guaranteed Connection ...............................322
Jijun Zhao, Weiwei Bian, Lirong Wang, Sujian Wang

Generalized Program Slicing Applied to Z Specifications ....................................................................326
Fangjun Wu

PC Based Weight Scale System with Load Cell for Product Inspection ..................................................331
Anton Satria Prabuwono, Habibullah Akbar, Wendi Usino

Short-Term Electricity Price Forecast Based on Improved Fractal Theory .........................................335
Herui Cui, Li Yang

BBS Sentiment Classification Based on Word Polarity ......................................................................340
Shen Jie, Fan Xin, Shen Wen, Ding Quan-Xun

Applying eMM in a 3D Approach to e-Learning Quality Improvement .............................................345
Kattiya Tawsopar, Kittima Mekhabunchakij

Research on Automobile Driving State Real-Time Monitoring System Based on ARM ....................349
Hongjiang He, Yamin Zhang

Information Security Risk Assessment and Pointed Reporting: Scalable Approach ..........................353
D.S. Bhilare, A.K. Ramani, Sanjay Tanwani

An Extended Algorithm to Enhance the Performance of the Gridbus Broker with Data Restoring Technique .........................................................................................359
Abu Awal Shoeb, Altaf Hussain, Abu Naser Bikas, Khalad Hasan

Prediction of Ship Pitching Based on Support Vector Machines .......................................................364
Li-hong Sun, Ji-hong Shen

The Methods of Improving the Manufacturing Resource Planning (MRP II) in ERP ..........................368
Wenchao Jiang, Jingti Han
A New Model for Classifying Inputs and Outputs and Evaluating the DMUs Efficiency in DEA Based on Cobb-Douglas Production Function .......................................................... 375
   S.M. Hatefi, F. Jolai, H. Kor, H. Iranmanesh

The Analysis and Improvement of the Price Forecast Model Based on Fractal Theory .......................................................... 380
   Herui Cui, Li Yang

A Flash-Based Mobile Learning System for Learning English as Second Language .......................................................... 385
   Firooz B. Anaraki

Recognition of Trade Barrier Based on General RBF Neural Network .......................................................................................... 390
   Yu Zhao, Miaomiao Yang, Chunjie Qi

An Object-Oriented Product Data Management .......................................................... 394
   Fan Wang, Li Zhou

Study of 802.11 Network Performance and Wireless Multicasting .......................................................... 399
   Biju Issac

A Novel Approach for Face Recognition Based on Supervised Locality Preserving Projection and Maximum Margin Criterion ........................................................................................................... 404
   Jun Kong, Shuyan Wang, Jianzhong Wang, Lintian Ma, Baowei Fu, Yinghua Lu

Association Rules Mining Based on Simulated Annealing Immune Programming Algorithm .......................................................................................................................................................... 409
   Yongqiang Zhang, Shuyang Bu

Processing Power Estimation of Simple Wireless Sensor Network Nodes by Power Macro-modeling ......................................................................................................................................................... 413
   M. Rafiee, M.B. Ghaznavi-Goushchi, B. Seyfe

A Fault-Tolerant Strategy for Multicasting in MPLS Networks .......................................................................................................................... 417
   Weili Huang, Hongyan Guo

A Novel Content-Based Information Hiding Scheme .......................................................................................................................................................... 421
   Jun Kong, Hongru Jia, Xiaolu Li, Zhi Qi

Ambi Graph: Modeling Ambient Intelligent System ................................................................................................................................................. 426
   K. Chandrasekaran, I.R. Ramya, R. Syama

Research on Grid-Based Short-Term Traffic Flow Forecast Technology .......................................................................................................................... 431
   Wang Xinying, Juan Zhicai, Liu Xin, Mei Fang

A Nios II Based English Speech Training System for Hearing-Impaired Children ......................................................................................................................................................... 434
   Ningfeng Huang, Haining Wu, Yinchen Song

A New DEA Model for Classification Intermediate Measures and Evaluating Supply Chain and its Members ......................................................................................................................................................... 439
   S.M. Hatefi, F. Jolai, H. Iranmanesh, H. Kor

A Novel Binary Code Based Projector-Camera System Registration Method ................................................................................................................................................. 444
   Jiang Duan, Jack Tumblin

Non-Temporal Multiple Silhouettes in Hidden Markov Model for View Independent Posture Recognition ......................................................................................................................................................... 448
   Yunli Lee, Keechul Jung

Classification of Quaternary [21s+1,3] Optimal Self-Orthogonal Codes .......................................................................................................................... 453
   Xuejun Zhao, Ruihu Li, Yingjie Lei

Performance Analysis of Large Receive Offload in a Xen Virtualized System .......................................................................................................................................................... 457
   Hitoshi Oi, Fumio Nakajima

An Improved Genetic Algorithm Based on Fixed Point Theory for Function Optimization ......................................................................................................................................................... 463
   Jingjun Zhang, Yuzhen Dong, Ruizhen Gao, Yannin Shang
Example-Based Regularization Deployed to Face Hallucination
Hong Zhao, Yao Lu, Zhengang Zhai, Gang Yang

An Ensemble Approach for Semantic Assessment of Summary Writings
Yulan He, Siu Cheung Hui, Tho Thanh Quan

A Fast Reassembly Methodology for Polygon Fragment
Gang Xu, Yi Xian

A Data Mining Approach to Modeling the Behaviors of Telecom Clients
Xiaodong Liu

Simulating Fuzzy Manufacturing System: Case Study
A. Azadeh, S.M. Hatefi, H. Kor

Research of INS Simulation Technique Based on UnderWater Vehicle Motion Model
Jian-hua Cheng, Yu-shen Li, Jun-yu Shi

Modeling and Simulation of Wireless Sensor Network (WSN) with SpecC and SystemC
M. Rafiee, M.B. Ghaznavi-Ghoushchi, S. Kheiri, B. Seyfe

Sub-Micron Parameter Scaling for Analog Design Using Neural Networks
A. A. Bagheri-Soula, M.B. Ghaznavi-Ghoushchi

An Improved Genetic Algorithm Based on Fixed Point Theory for Function Optimization
Jingjun Zhang, Yuzhen Dong, Ruizhen Gao, Yanmin Shang

P2DHMM: A Novel Web Object Information Extraction Model
Jing Wang, Zhijing Liu

An Efficient Multi-Patterns Parameterized String Matching Algorithm with Super Alphabet
Rajesh Prasad, Suneeta Agarwal

Research on Modeling Method of Virtual Enterprise in Uncertain Environments
Jihai Zhang

Design of Intrusion Detection System Based on a New Pattern Matching Algorithm
Hu Zhang

To Construct Implicit Link Structure by Using Frequent Sequence Miner (FS-Miner)
May Thu Aung, Khin Nwe Ni Tun

Recognition of Eye States in Real Time Video
Lei Yunqi, Yuan Meiling, Song Xiaobing, Liu Xiaxia, Ouyang Jiangfan

Performance Analysis of Postprocessing Algorithm and Implementation on ARM7TDMI
Manoj Gupta, B.K. Kaushik, Laxmi Chand

NURBS Interpolation Method with Feedrate Correction in 3-axis CNC System
Liangji Chen, Huiying Li

Implementation Technique of Unrestricted LL Action Grammar
Jing Zhang, Ying Jin

Improving BER Using RD Code for Spectral Amplitude Coding Optical CDMA Network
Hilal Adnan Fadhil, S. A. Aljunid, R. Badlishah Ahmad

Zhongwen Guo, Zhengbao Li, Feng Hong

Mathematical Document Retrieval for Problem Solving
Sidath Harshanath Samarasinghe, Siu Cheung Hui

Lossless Data Hiding Scheme Based on Adjacent Pixel Difference
Zhao Li, Xiaoping Chen, Xuezeng Pan, Xianting Zeng
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved Error Metric of Terrain Rendering for Flying High Over the Terrain</td>
<td>572</td>
</tr>
<tr>
<td>Guojun Chen, Baolei Cui, Qinggang Chen</td>
<td></td>
</tr>
<tr>
<td>Adaptive Step-Size and Block-Size FBLMS Algorithm</td>
<td>577</td>
</tr>
<tr>
<td>Qun Yang, Lin Xiao, Xuewen Zeng, Jinlin Wang</td>
<td></td>
</tr>
<tr>
<td>A Preliminary Workload Analysis of SPECjvm2008</td>
<td>582</td>
</tr>
<tr>
<td>Hitoshi Oi</td>
<td></td>
</tr>
<tr>
<td>Objective Quality Metric Based on Perception for Video</td>
<td>589</td>
</tr>
<tr>
<td>Chunting Yang, Lian Zhao, Zaiyi Liao</td>
<td></td>
</tr>
<tr>
<td>Study on the Key Technologies of Intelligent Coal Enterprises Integrated Statistical System</td>
<td>593</td>
</tr>
<tr>
<td>Bingjiang Gong, Dongyan Bai, Fengjiu Wang</td>
<td></td>
</tr>
<tr>
<td>Particle Swarm Optimization for Run-Time Task Decomposition and Scheduling in Evolvable MPSoC</td>
<td>597</td>
</tr>
<tr>
<td>Shervin Vakili, S. Mehdi Fakhraie, Siamak Mohammadi, Ali Ahmadi</td>
<td></td>
</tr>
<tr>
<td>High Performance Simulation Platform for Switching and Scheduling</td>
<td>602</td>
</tr>
<tr>
<td>Shuqiao Chen, Hongchao Hu, Ke Zhu, Yunfei Guo</td>
<td></td>
</tr>
<tr>
<td>Design and Realization of Embedded Web Gateway Server</td>
<td>608</td>
</tr>
<tr>
<td>Huimin He, Jing Wang, Lingling Si, Shiyin Li</td>
<td></td>
</tr>
<tr>
<td>Motorcycle and License Plate Detection Using Fixed-Size Vertical Projection and Multi-Part Mean Analysis</td>
<td>612</td>
</tr>
<tr>
<td>Wiwat Phatanasrirat, Suebskul Phipobmongkol</td>
<td></td>
</tr>
<tr>
<td>Design of Non-Critical Path Resource Distributor for SMT Processors</td>
<td>617</td>
</tr>
<tr>
<td>Hongzhou Chen, Lingdi Ping, Xiaoping Chen, Kuijun Lu</td>
<td></td>
</tr>
<tr>
<td>Prediction of MPEG Traffic Data Using a Bilinear Recurrent Neural Network with Adaptive Training</td>
<td>622</td>
</tr>
<tr>
<td>Dong-Chul Park</td>
<td></td>
</tr>
<tr>
<td>An Image Coding Algorithm Based on Nonredundant Contourlet Transform and Visual Characteristics</td>
<td>627</td>
</tr>
<tr>
<td>Guosheng Gu, Yinwei Zhan</td>
<td></td>
</tr>
<tr>
<td>A Dynamic Approach for Discovering Maximal Frequent Itemsets</td>
<td>631</td>
</tr>
<tr>
<td>M. Geetha, R.J. D'Souza</td>
<td></td>
</tr>
<tr>
<td>Deriving User Interfaces from UML Models and Object-Z</td>
<td>636</td>
</tr>
<tr>
<td>Zhong-jie Qiu, Chang-jiang Wei</td>
<td></td>
</tr>
<tr>
<td>Behavioral Fault Model for Neural Networks</td>
<td>640</td>
</tr>
<tr>
<td>A. Ahmadi, S.M. Fakhraie, C. Lucas</td>
<td></td>
</tr>
<tr>
<td>Embedded Smart Camera Performance Analysis</td>
<td>645</td>
</tr>
<tr>
<td>N.F. Kahar, R.B. Ahmad, Z. Hussin, A.N.C. Rosli</td>
<td></td>
</tr>
<tr>
<td>Face Recognition Combining 3-Channel Filter Bank and 2DLDA</td>
<td>650</td>
</tr>
<tr>
<td>Yuhua Zhang, Xin Wang</td>
<td></td>
</tr>
<tr>
<td>An Independent Damped Algorithm Based on SINS for Ship</td>
<td>654</td>
</tr>
<tr>
<td>Xu Bo, Sun Feng</td>
<td></td>
</tr>
<tr>
<td>A Low-Cost Fault-Tolerant Approach for Hardware Implementation of Artificial Neural Networks</td>
<td>659</td>
</tr>
<tr>
<td>A. Ahmadi, M.H. Sargolzaie, S.M. Fakhraie, C. Lucas, S. Vakili</td>
<td></td>
</tr>
<tr>
<td>Research on Improved Weighted Fuzzy Clustering Algorithm Based on Rough Set</td>
<td>664</td>
</tr>
<tr>
<td>Jian-guo Li, Jing-wei Gao</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Artificial Neural Networks in Cancer Recurrence Prediction</td>
<td>669</td>
</tr>
<tr>
<td>Panrasee Ritthipravat</td>
<td></td>
</tr>
<tr>
<td>Dynamic Analysis for Bracket of FOG</td>
<td>674</td>
</tr>
<tr>
<td>Gang Wang, Feng Sun</td>
<td></td>
</tr>
<tr>
<td>Development and Design of a New Logistics Information Management System</td>
<td>677</td>
</tr>
<tr>
<td>Wenzong Chi, Zhongyuan Wu</td>
<td></td>
</tr>
<tr>
<td>Parallel Annotation and Population: A Cross-Language Experience</td>
<td>682</td>
</tr>
<tr>
<td>Bahareh Sarraezadeh, Mehrnoush Shamsfard</td>
<td></td>
</tr>
<tr>
<td>Simulation Training Platform for Large Tactical Communication Equipment Based on VR</td>
<td>687</td>
</tr>
<tr>
<td>Gang Chen, YiLong Jia, Shang Xiang</td>
<td></td>
</tr>
<tr>
<td>Integrated Multi-Layer Network Survivability Based on GMPLS to Improve Fault Recovery Time</td>
<td>692</td>
</tr>
<tr>
<td>Jijun Zhao, Sujian Wang, Zhiyuan Tang</td>
<td></td>
</tr>
<tr>
<td>Research on the Construction of Mobile Learning Service</td>
<td>697</td>
</tr>
<tr>
<td>Chunlian Li, Ying Lin, Yu Sun, Lili Dou, Bing Han</td>
<td></td>
</tr>
<tr>
<td>R. Yousefi, A. Jalili, S.M. Fakhraie</td>
<td></td>
</tr>
<tr>
<td>Risk Analysis and Quantitative Evaluation of Large and Middle-Scaled Reservoir Flood</td>
<td>707</td>
</tr>
<tr>
<td>Xiangyang Xu, Tianyi Xu, Changjian Shen</td>
<td></td>
</tr>
<tr>
<td>Digital Watermark Algorithm Based on Embedding Gray Image into Color Image</td>
<td>712</td>
</tr>
<tr>
<td>Jing-wei Gao, Jian-guo Li</td>
<td></td>
</tr>
<tr>
<td>Autoreclosure in Extra High Voltage Lines Using Taguchi’s Method and Optimized Neural Networks</td>
<td>714</td>
</tr>
<tr>
<td>Desta Zahlay F., K.S. Rama Rao</td>
<td></td>
</tr>
<tr>
<td>An Improved Way to Facilitate Composition-Oriented Semantic Service Discovery</td>
<td>719</td>
</tr>
<tr>
<td>Ting Gao, Haiyang Wang, Na$hui Zheng, Fei Li</td>
<td></td>
</tr>
<tr>
<td>Performance Evaluation of IEEE 802.20 PHY Layer</td>
<td>724</td>
</tr>
<tr>
<td>Ashkan Jalili, S. Mehdi Fakhraie, Said Nader-Esfahani</td>
<td></td>
</tr>
<tr>
<td>The Agent in Two-Sided Market — A Study of E-payment Industry</td>
<td>729</td>
</tr>
<tr>
<td>Weijun Tang, Hongmin Chen, Li Xu</td>
<td></td>
</tr>
<tr>
<td>Collaborative Ontology Construction Using Template-Based Wiki for Semantic Web Applications</td>
<td>734</td>
</tr>
<tr>
<td>Sung-Kocé Lim, In-Young Ko</td>
<td></td>
</tr>
<tr>
<td>On Computer Simulation Models of RSW Process</td>
<td>739</td>
</tr>
<tr>
<td>Haining Zheng, Yongbing Li</td>
<td></td>
</tr>
<tr>
<td>Sensory Mapping Algorithm and Enhanced Product Development</td>
<td>743</td>
</tr>
<tr>
<td>Udi E. Makov, M. Ben-Assor, I. Sam Saguy</td>
<td></td>
</tr>
<tr>
<td>Firewall Rule Ordering Based on Statistical Model</td>
<td>748</td>
</tr>
<tr>
<td>Weiping Wang, Heran Chen, Jiayao Chen, Bowen Liu</td>
<td></td>
</tr>
<tr>
<td>A Novel Model for Multi-Agent Systems to Improve Communication Efficiency</td>
<td>752</td>
</tr>
<tr>
<td>Alireza Noroozi</td>
<td></td>
</tr>
<tr>
<td>Research on Optimization of Data Communication in Battle Damage Simulation System</td>
<td>756</td>
</tr>
<tr>
<td>Qingtang Su</td>
<td></td>
</tr>
</tbody>
</table>
Design about Real-Time Fault Detection Information System of the Transformer Substation
Yuejun Liu, Jing Su, Feng Liu

Design and Study on Salinity Controller
Lizong Lin, Zhiqin Qian, Xiaolin Wang, Zhiling Wang

Protein Contact Map Prediction Based on an Ensemble Learning Method
Narjes Khatoon Habibi, Mohammad Hossein Saraei

An Analysis of Suburb Tourism Trend Based on System Dynamics Method
Xia Jin

BSP Design for Fiscal Cash Register Embedded System
An-kun He, Ping Su, Zhuang Wu

Encrypted Voice Calls with IP Enabled Wireless Phones over GSM/ CDMA/ WiFi Networks
Mohammed A. Qadeer, Robin Kasana, Sarvat Sayeed

Voice over Data over GPRS/ EDGE Networks
Mohammed A. Qadeer, Ahmad Ali Habeeb, Shamshir Ahmad

Speedy Detection Algorithm of Underwater Moving Targets Based on Image Sequence
Fa-quan Zhang, Yong Zhang, Li-ping Lu, Li-ying Jiang, Guang-zhao Cui

Data Allocation for SPM Based on Knapsack Problem
Yingbiao Yao, Bin Wang, Huahua Chen, Jianwu Zhang

A Genetic Algorithm for Makespan Minimization in a No-Wait Flow Shop Problem with Two Batching Machines
F. Jolai, H. Kor, S.M. Hatefi, H. Iranmanesh

Modeling and Analyzing Project Performance with Timing Constraint Petri Net
Ruiqiang Yu, Zhiqiu Huang, Lin Wang

Profile Management and Authentication Using LDAP
Mohammed A. Qadeer, Mohammad Salim, M. Sana Akhtar

A Temporal-Domain Error Concealment Algorithm Effective in Motion Boundary Improvement
De Fang Zhao, Sheng Rong Gong, Shu Kui Zhang

Feature Dependency Modeling for Software Product Line
Daizhong Luo, Shanhui Diao

Authentication of Nodes among Different Symmetric Key Groups in MANETs Using 4G Technologies
Azem Irshad Sheikh, Wajahat Noshairwan, Muhammad Rashid, Syed Mushhad Gilani, Ehtsham Irshad, Muhammad Usman

Wavelet Packet Threshold Approach to Denoising Piezoelectricity Gyro Signal
Yong-xiang Zhang, Xiao-xu Zhao, Hui-mei Yuan, Wei-gong Zhang

Design and Simulation of Interconnected Autonomous Systems
Mohammed A. Qadeer, Piyush Varshney, Najmul Huda Khan

Spectral Matching Properties between Avalanche Photodiodes and Typical Objects
Liju Yin, Qian Chen, Canlin Zhang

Business Processes Solution with Apache Struts Framework
Su Su Khin

An HCI Scheme Based on Multi-List for Embedded System
Ningshe Zhao, GuoQing Wang, Zhengjun Zhai, Qiurong Wang
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effects of Different Mobile Channel Conditions on IEEE 802.20</td>
<td>848</td>
</tr>
<tr>
<td>Ashkan Jalili, Rasoul Yousefi, S. Mehdi Fakhrne, Said Nader-Esfahani</td>
<td></td>
</tr>
<tr>
<td>Measurement System of Dynamic Impedance of Vehicle Electronic Line Connector</td>
<td>853</td>
</tr>
<tr>
<td>Wei-bin Wu, Li-fu Li, Transheng Hong, Jinjian Wang</td>
<td></td>
</tr>
<tr>
<td>A Study of Influence Factors Affecting to Surface Roughness in Stainless Steel Turning</td>
<td>857</td>
</tr>
<tr>
<td>Sittichai Kaewvukkool, Komsan Jirapattarasilp, Kampol Pechkong</td>
<td></td>
</tr>
<tr>
<td>Approximation Algorithms on Multiprocessor Task Scheduling</td>
<td>861</td>
</tr>
<tr>
<td>Huang Jingui, Li Rongheng</td>
<td></td>
</tr>
<tr>
<td>Acoustic Doppler Velocity Log’s Echo Simulation, Velocity Estimation and Performance</td>
<td>866</td>
</tr>
<tr>
<td>De-zhu Liu, Da-jun Sun, Dian-lun Zhang</td>
<td></td>
</tr>
<tr>
<td>Dynamic Handwritten Signature Verification Based on Statistical Quantization</td>
<td>870</td>
</tr>
<tr>
<td>Thian Song Ong, Wee How Khoh, Andrew Beng Jin Teoh</td>
<td></td>
</tr>
<tr>
<td>Stratum Recognition Method Based on Support Vector Machine</td>
<td>875</td>
</tr>
<tr>
<td>Wei-jiang Wu, Guo-he Li, Hong-qi Li</td>
<td></td>
</tr>
<tr>
<td>Study on the Balance of Urban Datum Land Prices Among Cities in Hubei Province of China</td>
<td>879</td>
</tr>
<tr>
<td>Nianchao Deng, Yaolin Liu</td>
<td></td>
</tr>
<tr>
<td>Improved Bayesian Anti-Spam Filter — Implementation and Analysis on Independent Spam Corporuses</td>
<td>884</td>
</tr>
<tr>
<td>Biju Issac, Wendy Japutra Jap, Jofry Hadi Satanto</td>
<td></td>
</tr>
<tr>
<td>Evaluation Method and Application Based on Rough Set-Support Vector Regression Model</td>
<td>889</td>
</tr>
<tr>
<td>Xiu-mei Wang, Xing Zhang, Chong Gao</td>
<td></td>
</tr>
<tr>
<td>ANSYS-Based Dynamic Analysis of High-Speed Motorized Spindle</td>
<td>894</td>
</tr>
<tr>
<td>Weiguang Li, Hongbin Pu, Quanquan Liu, Gang Chen, Song Zhang</td>
<td></td>
</tr>
<tr>
<td>An Improved Method for Designing Prototype Filter for M-Band Pseudo QMF Banks</td>
<td>899</td>
</tr>
<tr>
<td>A. Kumar, G.K. Singh, R.S. Anand</td>
<td></td>
</tr>
<tr>
<td>Domain Ontology Based Automatic Question Answering</td>
<td>904</td>
</tr>
<tr>
<td>Jibin Fu, Jinzhong Xu, Keliang Jia</td>
<td></td>
</tr>
<tr>
<td>Azimuth and Elevation of Slightly Inclined Geostationary-Satellite Orbits</td>
<td>908</td>
</tr>
<tr>
<td>Jun-xia Cui, Hu-li Shi, Feng Pang</td>
<td></td>
</tr>
<tr>
<td>FPGA Implementation of the Ternary Pulse Compression Sequences with Good Discrimination Factor Values</td>
<td>911</td>
</tr>
<tr>
<td>N. Balaji, K. Subba Rao, M. Srinivasa Rao</td>
<td></td>
</tr>
<tr>
<td>Constant-Current Soft Starting of Induction Motor Based on Fuzzy Control</td>
<td>916</td>
</tr>
<tr>
<td>Shufen Li, Zhihua Liu</td>
<td></td>
</tr>
<tr>
<td>Road Surface Texture Recognition Method Research Based on Wavelet Packet HMM</td>
<td>920</td>
</tr>
<tr>
<td>Hong Li, Jun Lin, Yanhui Feng</td>
<td></td>
</tr>
<tr>
<td>A Queuing Analysis of Tolerating for Denial-of-Service (DoS) Attacks with a Proxy Network</td>
<td>924</td>
</tr>
<tr>
<td>Myint Myint Aye</td>
<td></td>
</tr>
<tr>
<td>An Adaptive Framework for Biometric Systems</td>
<td>927</td>
</tr>
<tr>
<td>Sitalakshmi Venkatram</td>
<td></td>
</tr>
</tbody>
</table>
The Design of Digital Frequency Transmission System Based on SOPC Technique
Lihua Su, Keping Zhao, Yan Yang

Security in Ad Hoc Networks: A Location Based Impersonation Detection Method

Quantification and Evaluation of Survivability on Information Systems
Ming He, Hang-Ping Qiu, Ai-qun Hu, Ji-Chuan Quan

Effectiveness of E-Learning System
Sarmad Mohammad

Computation Simulation on Aerodynamic Characteristic of PSD in Subway Platform
Wei-chao Yang, Li-min Peng, Li-chuan Wang

Study on the Remote Maintenance and Testing for EPON System
Chen Wei, Jing Xiuzhi

An Adaptive and Efficient MAC Protocol for Wireless Mesh Networks: An Extension of Maca-P

Research on the MPEG-2 Video Watermarking Scheme Based on Spread Spectrum Technology
Liang Huang

Autonomic Computing in Medical Informatics: Accessing and Retrieval of EMR
K. Chandrasekharan, Ashwini Rao, B. Sruthi

The Theory and Practice of Bilingual Teaching in "Object-Oriented Software Engineering"
Zheng Wei, Zhang Tao, Chau Hau-Ming Lewis, Fang-Fang Duan

An Authenticated Paradigm for Mobile Agent System in Online Examination
Swe Zin Hlaing

Design and Implementation of WEB Log Mining System
Xianjun Ni

Process Data Mining Based on Rough-Set Time Series Analysis
Guijun Yang

Wireless-LAN Based Distributed Digital Lighting System for Digital Home
Xu Huaiyu, Su Ruidan, Jiang Linying, Jin Song

Fuzzy Ant Colony Based Routing Protocol for Mobile Ad Hoc Network
M.M. Goswami, R.V. Dharaskar, V.M. Thakare

A Route Optimization Technique for LFN-CN in NEMO
Dinakaran M, P. Balasubramanien

The Research of Collision Detection Algorithm Based on Spatial Subdivision
Hanjun Jin, Zhiliang Liu, Tianzhen Wu, Yanxia Wang

(2,1)-Lagged Fibonacci Generators Using Elliptic Curves over Finite Fields
B.R. Shankar, Kamath K. Karuna

A Method to Support Web Evolution by Modeling Static Structure and Dynamic Behavior
Junhua Wu, Baowen Xu

Dynamic Web Service Composition
Faisal Mustafa, T.L. McCluskey
A New Design without Pressure Fluctuation for the Dynamic and Static Triaxial Instrument
Yong Sang, Longtan Shao

Extraction of Rectangular Boundaries from Aerial Image Data
Dong-Chul Park, Vu Thi Lan Huong, Dong-Min Woo, Yun Sik Lee

Research on Embedded Video Monitoring System Based on Linux
Quanxi Li, Peiqian Liu, Changyou Li

A Novel Approach for Web-Based Conference Management System
Pradeep Gurunathan, Seethalakshmi Pandian

Knowledge Transfer in ISD Offshore Outsourcing Project
Huang Ling Yun

A Combination of PSO and Local Search in University Course Timetabling Problem
Irene Sheau Fen Ho, Deris Safaai, Mohd Hashim Siti Zaiton

A Zero-Knowledge Identity Verification Protocol Using Blind Watermark
Junhua Chen, Wu Peng

Research on Visual Speech Feature Extraction
He Jun, Zhang Hua

SOA Using AOP for Sensor Web Architecture
S.V. Patel, Kamlendu Pandey

Research on Anti-Vibration Scheme of FOG SINS
Lei Wu, Jian-hua Cheng, Feng Sun

Harmonic, Reactive and Neutral Currents Compensation and Load Balancing in 3P4W Distribution Systems
R.D. Patidar, S.P. Singh

Internet Call Delay on Peer to Peer and Phone to Phone VoIP Network
Kashif Nisar, Halabi Hashallah, Abas Md Said

An AES Tightly Coupled Hardware Accelerator in an FPGA-Based Embedded Processor Core
Arif Irwansyah, Vishnu P. Nambiar, Mohamed Khalil-Hani

Estimation of Evapotranspiration Using Fused Remote Sensing Image Data and Energy Balance Model for Improving Water Management in Arid Area
Ayoub Almhub, Ibrahim Busu

Design and Implementation of Digital Contents Authoring Tools with Metadata
Sooduck Chun, Junghoon Shin, Sangjun Lee, Soowon Lee, Kyoung-Su Oh

An Overview of the MABS and RPG Techniques in Natural Resources Management
Diana F. Adamatti

Evaluation of Corporate Environmental Reports Using Data Mining Approach
Jashua Rajesh Modapothala, Biju Issac

Energy Conservation Diagnosis Based on Neural Network and Statistical Computing
Li-Feng Tsai, Yuan-Tai Ku, Ya-Ching Chang, Hsin-Lan Chung

Flexible Model for Simulating Drinkable Water Treatment Station
Eymen A. Ahmed, Ali M. Abdelrahman

Nano Tungsten Carbide Supported on Carbon from Palm Kernel Shell in Remediation of Chlorofluorocarbon (CFC-12)
Abdul Rahim Yacob, Siti Zubaidah Hanapi, Viccinivarrri Inderan
Conventions to Achieve Safer Design and Reduce Catastrophic and Routine Harm to the Environment ................................................................. 1115
  Bruce Moulton

GIS Based Ecomapping of Industries — A Potential Tool for Environmental Performance Analysis and Optimization ...................................................... 1120
  Baskar Ganeshkumar, R. Gobinath, N. Mahendran

Author Index