

Proceedings

**2008 International Conference
on Advanced Computer Theory
and Engineering
*ICACTE 2008***

**20-22 December 2008
Phuket, Thailand**



**Los Alamitos, California
Washington • Tokyo**



TABLE OF CONTENTS

KEYNOTE SPEECH SESSION

Evaluating Quality of Software Systems by Design Patterns Detection	1
<i>Parvinder Singh Sandhu, Parwinder Pal Singh, Anil Kumar Verma</i>	
Tranquility and Anxiety in E-Business – A Fuzzy Approach.....	6
<i>B. K. Mohanty</i>	
Reducing Aircraft Accidents: Can Intelligent Agent Paradigms Help?	11
<i>Steve Thatcher</i>	
Digital Archiving and Data Mining of Historic Document.....	17
<i>M. H. N. Tabrizi</i>	
Neural Control and Learning for Versatile, Adaptive, Autonomous Behavior of Walking Machines	22
<i>Poramate Manoonpong, Florentin Worgotter</i>	
Telecollaboration for eBusiness Sustainability	27
<i>Venkatesh Mahadevan</i>	
Application of Random Forest in Predicting Fault-Prone Classes	35
<i>Arvinder Kaur, Ruchika Malhotra</i>	
Why Computers Are Not Displaying Intelligence	42
<i>Suash Deb</i>	
Artificial Neural Network Modeling for Efficient Photovoltaic System Design	48
<i>D. Paul, S. N. Mandal, D. Mukherjee, S. R. Bhadra Chaudhuri</i>	

SESSION 1

Automatic Segmentation and Labeling for Spontaneous Standard Malay Speech Recognition	55
<i>Noraini Seman, Kamaruzaman Jusoff</i>	
Quantum-Based Fixed Priority Scheduling	60
<i>Moonju Park, Hong Jin Yoo, Jinseok Chae, Chung-Kyue Kim</i>	
Performance Evaluation of Virtual Private Network Protocols in Windows 2003 Environment	65
<i>Shaneel Narayan, Samad S. Kolahi, Kris Brooking, Simon de Vere</i>	
Channel Coordination with Manufacturer's Revenue Sharing Contract	70
<i>Maryam Khajeh Afzali, Poh Kim Leng</i>	
Bargaining-Based E-Content Pricing for 3G Data Services	75
<i>Li Ma, Xiaofeng Li</i>	
Designing a Customized Test Data Generator for Effective Testing of a Large Database	80
<i>Jaiteg Singh, Kawaljeet Singh</i>	
A Personalized Trust-Based Approach for Service Selection in Internetwares	85
<i>Pan Jing, Xu Feng, Xin Xianlong, Lü Jian</i>	

Analysis of Interface Vocabulary and Users' Understanding in Integrated Iranian Library Software	90
<i>Mohsen Nowkarizi</i>	
Multi-DSP Real Time Image Processing System Based on Rapid IO Protocol	97
<i>Jian-ying Wei, Yu-tang Ye, Yun-feng Wu, Jun-jie Deng</i>	
Direct Hallucination: Direct Locality Preserving Projections (DLPP) for Face Super-Resolution	101
<i>Saarah Ahmed, Naveed Iqbal Rao, Abdul Ghafoor, Ahmed Muqem Sheri</i>	
Performance Analysis of MDN Based on P2P Architecture	107
<i>Zheng Quan, Zheng Xiao-Le, Li Jun, Xiong Qing-Chang, Wu Gang</i>	
Smart Home Mobile RFID-Based Internet-of-Things Systems and Services	112
<i>Mohsen Darianian, Martin Peter Michael</i>	

SESSION 2

Presenting a Systematic Method for LU Decomposition of a Matrix with Linear Systolic Arrays	117
<i>Mohammad Mosleh, Saeid Setayeshi, Mohammad Kheyrandish</i>	
Solving Cross-Selling Problems with Ensemble Learning: A Case Study	122
<i>Xinjian Guo, Yilong Yin, Guangtong Zhou, Cailing Dong</i>	
Steganomark: Embedding XML Data in a Color Image	128
<i>Rajashree Shettar, Shobha G., Chetan S., Hemantha S.</i>	
A New Research on the Application of Fractal Dimension	132
<i>Jian-hong Zhou, Olga Sourina</i>	
Implementing an ACO Routing Algorithm for AD-HOC Networks	137
<i>Mohammad Golshahi, Mohammad Mosleh, Mohammad Kheyrandish</i>	
Synchronized Control of Aggregated Reservation States for Resource Management in Diffserv Networks	142
<i>Chengbo Huang, Yongsheng Liang, Yilong Xu</i>	
Investigating Cellular Automata Based Network Intrusion Detection System for Fixed Networks (NIDWCA)	147
<i>P. Kiran Sree, I. Ramesh Babu</i>	
Research of Customer Service System Based on Knowledge Management	151
<i>Guozheng Wang, Haiyan Wu</i>	
A Survey on Routing Protocols and Challenge of Holes in Wireless Sensor Networks	155
<i>Ifrah Farrukh Khan, Muhammad Younas Javed</i>	
Research on Virtual History Reappearance System Oriented Education	160
<i>Haiyan Wu, Xun Wang</i>	
Equipment Diagnosis Method Based on Hopfield-BP Neural Networks	164
<i>Rao Hong, Li Meizhu, Fu Mingfu</i>	
Hybrid Energy-Efficient Approach for Target Tracking via Sensor Networks	168
<i>Ehsan Monsef, Shamala Subramanian</i>	

SESSION 3

A Novel Algorithm to Classify Iris Image Based on Differential of Fractal Dimension by Using Neural Network	173
<i>Ali Asghar Beheshti Shirazi, Leila Nasseri</i>	
Seismic Data De-noising Based on Second Wavelet Transform	178
<i>Fu Yan, Zhang Chunqin</i>	
Feature Extraction in Compressed Domain for Content Based Image Retrieval	182
<i>Padmashri Suresh, R. M. D. Sundaram, Aravindhan Arumugam</i>	
H.264/AVC Error Resilience Scheme Based on OFDM System Using Space-Time Block Coding	187
<i>Yong Liu, Ai-dong Men, Qing-song Tong</i>	
Investigation on Cooling Schemes and Parameters of Simulated Annealing for Timetabling University Courses	192
<i>Warattapop Chainate, Peeraya Thapatsuwan, Pupong Pongcharoen</i>	
Greedy-Algorithm of KSORD Supporting Multi-language Phrase Recognition	197
<i>Peng Li, Qing Zhu, Chao Tian, Shan Wang</i>	
A Unified Framework for Thai Metadata Extraction Using Case-Based Reasoning	202
<i>Krisda Khankasikam, Nopasit Chakpitak</i>	
Sufferage Extraction Algorithm of Ontology Mapping Based on Reasoning	207
<i>Si Chang, Qingjun Zhang, Xin Liu, Bo Liu</i>	
Characterization of Er³⁺ Doped Tellurite Glasses Used in Long Optical Communication	212
<i>Tao Peng, Danjiang Chen, Guan Zongqi</i>	
JPEG Image Steganalysis Improvement Via Image-to-Image Variation Minimization	215
<i>Chiew Kang Leng, Josef Pieprzyk</i>	
Magnetic Flux Leakage Testing Method for Well Casing Based on Gaussian Kernel RBF Neural Network	220
<i>Jinzhong Chen, Lin Li, Binggui Xu</i>	
Design of Electro-Hydraulic Servo Force Feedback System Based on the GPC with Simplified Model	224
<i>Yadong Meng, Changchun Li, Hao Yan, Xiaodong Liu</i>	

SESSION 4

A Simple and Robust Persian Speech Recognition System and Its Application to Robotics	229
<i>H. Hasanabadi, A. Rowhanimanesh, H. Tabatabaee Yazdi, N. Sharif</i>	
Development of a Robotic 3D Scanning System for Reverse Engineering of Freeform Part	236
<i>Yang Zhao, Ji Zhao, Lei Zhang, Lizhe Qi</i>	
A Hybrid Algorithm for the Shortest-Path Problem in the Graph	241
<i>Mohammad Reza Soltan Aghaei, Zuriati Ahmad Zukarnain, Ali Mamat, Hishamuddin Zainuddin</i>	
Research on the Color Reproduction Based on the BP Neural Network Algorithm	246
<i>Xiao-zhao Xu, Xin-feng Zhang, Yi-heng Cai, Lan-sun Shen, Chang-jiang Liu</i>	
Availability and Cost Analysis of a Fault-Tolerant Software System with Rejuvenation	251
<i>Long Zhao, QinBao Song</i>	
The Study of Handover in Mobile IPv6 Networks	256
<i>Reza Malekian, Reza Berangi, Naser Mozayani</i>	

Watermark Algorithm Research and Simulation Based on Different Frequency Coefficients	261
<i>Gengming Zhu, Nong Sang, Desheg Xiang, Shaobo Zhang</i>	
Upper Bound Adaptive Learning of Neural Network for the Sliding Mode Control of Underwater Robot	266
<i>Heping Liu, Zhenbang Gong</i>	
Construction of Morphisms over Extended Algebraic Automata Using Z	271
<i>Nazir Ahmad Zafar, Ajmal Hussain, Amir Ali</i>	
Development and Application of Virtual Avatar Interactive Technology	276
<i>Duan Xinyu, Jiang Pin</i>	
Com⁺HDM: Extending UML Profiles for Modeling Complex Web Hypermedia Applications	280
<i>Azrul Hazri Jantan, Putra Sumari, Shahida Sulaiman</i>	
Bearings-Only Maneuvering Target Tracking Based on STF and UKF	285
<i>Wang Yali</i>	

SESSION 5

Story Based Mobile Application for Requirements Engineering Process	290
<i>Muthuraman Palamalai, Rodina Ahmad, Mohd Hairul Nizam</i>	
Research on P2P Semantic Community of Interest and Trust Evaluation	295
<i>Li Wang, Gaoxia Hu, Liqing Liu</i>	
Novel Algorithm to Classify Iris Image Based on Entropy by Using Neural Network	300
<i>Ali Asghar Beheshti Shirazi, Leila Nasseri</i>	
ϵ-Algorithm for Transient Analysis of Lossy and Dispersive Multiconductor Transmission Lines	305
<i>Xinzh Shi, Chang Qi, Jicheng Hu, Gaofeng Wang</i>	
The Establishment of an Integrated Management Model - An Experience in Taiwan Hospital	309
<i>Yu-Hua Yan, Shuo-fen Hsu, Shih-Chieh Fang, Chih-ming Kung</i>	
An Efficient Algorithm for Multi-class Support Vector Machines	314
<i>Jun Guo, Norikazu Takahashi, Wenxin Hu</i>	
One Solution to Internet Oriented Industry Control System Based on Software Bus	319
<i>Pengfei Shao, C. Bruce-Boye, Guan Zongqi</i>	
Simulation of Acoustical Field for Linear Phased Array Transducer	323
<i>Xiao Chen</i>	
Comparison of Proposed PPMM with Other PPM Methods for Link Completion Problem	328
<i>Paweena Chaiwanarom, Chidchanok Lursinsap</i>	
UCaG: An Automatic C Code Generator for AADL Based upon DeltaOS	333
<i>Shenglin Gui, Liang Ma, Lei Luo, Limeng Yin, Yun Li</i>	
Graphical Password: Prototype Usability Survey	338
<i>Ali Mohamed Eljetlawi, Norafida Ithnin</i>	
An Improved Parallel Sorting Algorithm for Odd Sequence	343
<i>Xie Hongwei, Xue Yafeng</i>	

SESSION 6

Exploring Dominating Features from Apis Mellifera Pre-miRNA	348
<i>A. K. Mishra, D. K. Lobiyal</i>	
Application of NS2 in Education of Computer Networks	353
<i>Zhao A. Qun, Wang Jun</i>	
MAPMARK: Seeking and Sharing Location-Base Information on Web	358
<i>Cheng-I Tsai, Hung-Lin Hsu, Chien-Hsu Chen, Tay-Sheng Jeng</i>	
Intelligent Detection of Network Agent Behavior Based on Support Vector Machine	363
<i>Wuling Ren, Xianjie Wu</i>	
Discovering Multiple-Level Association Rules from Transactional Databases with Consideration of Temporal Characteristics of Products' Discounts Rates	368
<i>Maryam Nafari, Jamal Shahrabi</i>	
A Method on Specification and Verification of Component Interaction in Real-Time Reactive Systems	373
<i>Yangli Jia, Zhoujun Li, Zhenling Zhang, Shengxian Xie</i>	
Measurement and Modeling of RFID Propagation Channel with in an Indoor Environment	378
<i>S. Duangsuwan, S. Promwong, N. Sukutamatanti</i>	
A Method for Improving Interaction of Embedded Rich Media Application	383
<i>Zhang Ji-Xian, Luo Lei</i>	
Formal Concepts and Maximal Compatibility Blocks	388
<i>Wan-Li Chen</i>	
Inference Networks for Chemical Similarity Searching	393
<i>Ammar Abdo, Naomie Salim</i>	
Study on QoS Control for Web System Based on Dynamic Monitoring and Parameters Regulating	398
<i>Pin Xiao, Honghui Wan</i>	
Research on Navigation Terminal Oriented POI Compression and Retrieval	402
<i>Kang Jianchu, Liu Peng, Zhu Tongyu</i>	

SESSION 7

An Effective Remote Control System Based on TCP/IP	407
<i>Xueyu Geng, Shunyao Wu, Jinlong Wang, Peng Li</i>	
Mobile IP Network Mobility	412
<i>Reza Malekian</i>	
Research of Intrusion Detection Based on Support Vector Machine	416
<i>Gengming Zhu, Junguo Liao</i>	
Proposing a Physical Model for Malaysian Health Plan Data	421
<i>Ruhaila Maskat, Mohd Firzan Shamsudin</i>	
The Syntactic and Semantic Model of Web Services Composition Based Category	426
<i>Xinlin Zhang, Huaikou Miao, Hongwei Zeng</i>	
Termination Analysis of Linear Programs with Conditionals	432
<i>Zhongqin Bi, Meijing Shan</i>	

Chaos in Orthogonal Frequency Divison Multiplexing Technique	439
<i>Yoothana Suansook, Kitti Paithoonwattanakit</i>	
Ontology-Based Automatic Feedback Design for the Learning Forum	444
<i>Fang Fang, Na Zhao, Lei Fan</i>	
Wikipedia Customization for Organization’s Process Asset Management	449
<i>Jenjira Wongboonsin, Yachai Limpiyakorn</i>	
A Novel SVMs Classifier Based on Fourier Descriptor and Other Multi-Features Fusion	454
<i>Yang Quan, Peng Jinye</i>	
Fast Fractal Image Compression Base on Block Property	459
<i>C. M. Kung, W. S. Yang, C. C. Ku, C. Y. Wang</i>	
The Research of Electric Load Control System Based on Multi-Agent	464
<i>Tinghong Zhao, Zibin Man, Guiquan Bi</i>	

SESSION 8

Fuzzy Clustering Methods in Data Mining: A Comparative Case Analysis	469
<i>Raju G., Binu Thomas, Sonam Tobgay, Th. Shanta Kumar</i>	
Tactical Communication Simulation Training System Based on VR	474
<i>Gang Chen, Xu Lu, Danbo Liao, Qiong Chen</i>	
Benefiting from Data Mining Techniques in a Hybrid Peer-to-Peer Network	479
<i>Mahdi Ebrahimi, Mohammad A. Bazyar, Maryam Tahmasbi, Reza Boostani</i>	
An Improved LU Matrix Key Pre-distribution Scheme for Wireless Sensor Networks	483
<i>Ni Chen, Jian Bo Yao, Gang Jun Wen</i>	
3D Thai-Boxing-Martial-Art Animation Computer Assisted Instruction	488
<i>Adisorn Leelasantitham, Prawat Chaiprapa</i>	
Optimization Design of the Rectangular 3-D Braided Composite Based on PSO Algorithm	493
<i>Ke Zhang</i>	
A Three-Tier Architecture for Integrating Mobile Ad Hoc Network and the Internet Using a Hierarchical Integrated Routing Protocol	498
<i>Khaleel Ur Rahman Khan, Rafi U. Zaman, A. Venugopal Reddy</i>	
Minimum Zone Evolution of Circularity Error Based on an Improved Genetic Algorithm	503
<i>Ke Zhang</i>	
A New Mesh Simplification Algorithm Based on Quadric Error Metrics	508
<i>Yibo Li, Qiong Zhu</i>	
Comparison Between ANN and Decision Tree in Aerology Event Prediction	513
<i>Seyed Behzad Lajevardi, Behrouz Minaei-Bidgoli</i>	
Effective Iframe-Based Strategy for Processing Dynamic Data in Embedded Browser	518
<i>Qiong Yao, Peng Sun, Linlin Hu, Xiaoyong Zhu, Hong Ni</i>	
Towards Optimized Routing Approach for Dynamic Shortest Path Selection in Traffic Networks	523
<i>Tongyu Zhu, Wang Xiang</i>	

SESSION 9

Wavelet Decomposition and Feature Extraction from Pulse Signals of the Radial Artery	528
<i>Meghna Sareen, Abhinav, Prakhar Prakash, Sneha Anand</i>	
Optimal Algorithm for Task Scheduling of Distributed Test & Control System	533
<i>Meng Fang, Yu Zhenxia, Shang Mingsheng</i>	
S³: Packet Classification Using Simple Split Header Structure	538
<i>Sanjeev Wagh, T. R. Sontakke, Anup Vasudeva</i>	
Data Communication Analysis and Algorithm for the Efficiency of Data Distribution in High Performance Computing	543
<i>Jinchuan Ke, Ming T. Jiang</i>	
A Novel Zero-Aware Four-Transistor SRAM Cell for High Density and Low Power Cache Application.....	548
<i>Arash Azizi Mazreah, Mohammad Reza Sahebi, Mohammad Taghi Manzuri, S. Javad Hosseini</i>	
Interactive Mesh Cutting Algorithm Based on Prism for Virtual Craniofacial Osteotomy of Orthognathic Surgery	553
<i>Jianyu Shi, Peifang Zhai, Yanning Zhang, Hong Zhou</i>	
Low Complexity Deblocking Algorithm and Implementation with a Configurable Processor	558
<i>Wei Guo, Jing Xie, Zhicheng Zhang</i>	
A New Approach for Image Encryption Using Chaotic Logistic Map	562
<i>M. Sabery K., M. Yaghoobi</i>	
A Method to Compare Concepts Between Ontologies	568
<i>Dehai Zhang</i>	
The Function Design and Realization of the City Transport System	573
<i>Guan Zongqi, Xiao Zhihong</i>	
A Similarity and Feedback Based Query Routing Across Unstructured Peer-to-Peer Networks	577
<i>Iskandar Ishak, Naomie Salim</i>	
Research and Implementation of Simulation in Assembly and Test Manufacturing Based on Database Technology	582
<i>Yihua Li, Yimeng Liu, Jin Yao, Jiawei Yang</i>	

SESSION 10

SP-AODV: A Semi-proactive AODV Routing Protocol for Wireless Networks.....	587
<i>Tooska Dargahi, Amir Masoud Rahmani, Ahmad Khademzadeh</i>	
Research of Negotiation Method for Data Grid Transmission	592
<i>Hong Liang, Jianjian Chen</i>	
A Simple and Robust Approach for Image Hiding Using Chaotic Logistic Map.....	597
<i>M. Sabery K., M. Yaghoobi</i>	
Toward Theme Development Analysis with Topic Clustering.....	602
<i>Xueyu Geng, Jinlong Wang</i>	
New Modeling Method for Trees	607
<i>Chunhua Wang, Kejian Yang, Dong Han</i>	
A-Close+: An Algorithm for Mining Frequent Closed Itemsets	612
<i>Maryam Shekofteh, Amir Masoud Rahmani, Mashaallah Abbasi Dezfuli</i>	

Research on Real-Time LLL Imaging Generation Method Based on GPU	617
<i>Jun Chen, Kejian Yang, Jianwen Yang, Chunhua Wang</i>	
Solution for Search Result Clustering by Using Singular Value Decomposition	621
<i>Vaclav Snasel, Hussam Dahwa Abdulla</i>	
Resource Leveling Optimization of Network Schedule Based on Particle Swarm Optimization with Constriction Factor	626
<i>Nansheng Pang, Yingling Shi, Yuan You</i>	
A Performance Improvement to the Web Services-Based RFID Middleware	631
<i>Hongying Liu, Junhuai Li, Jing Zhang, XinCheng Bai</i>	
Word Categorization Using Clustering Ensemble	636
<i>Monireh Abdoos, Seyed Gholamreza Jalali Naeini</i>	
Production Process Planning Model with Geometric Accessibility and Case Learning	641
<i>Wenfa Hu</i>	

SESSION 11

Mining Influence Correlation of Commodity Category Based on Sale Data Time Series	646
<i>Xueyu Geng, Jinlong Wang</i>	
Maintenance Decision Support Fuzzy System in Small and Medium Industries Using Decision Making Grid	651
<i>Zulkifli Tahir, Anton Satria Prabuwono, M. A. Burhanuddin, Habibullah Akbar</i>	
Selective Compression Algorithm of Facial Images Based on DWT	656
<i>Lu Xiaoqi, Zhang Baohua</i>	
Research on GEP Algorithm and Its Applications in Foodstuff Yield Prediction from Shaanxi Province	661
<i>Yin Li, Xin Chen, Dongjian He, Liling Tang</i>	
Session Key Based Manipulated Iteration Encryption Technique (SKBMIET)	665
<i>Subhranil Som, Dipanjan Mitra, Jhilom Halder</i>	
Research on Evaluation of E-Learning Modelling Based on Petri Nets	670
<i>Zhang Baohua</i>	
Computational Approach to Arabic Broken Derived Nouns Morphology	675
<i>Naser K. A. Alajmi, Safa' ai bin Deris, Salah Alnajem</i>	
The Permission Approach to Comprehend Lock-Based Synchronization Policy	680
<i>Yang Zhao, Ligong Yu, Jia Bei</i>	
A Lightweight Pronoun Resolution Algorithm for French Corporate Texts	685
<i>Olivier Tardif, Sylvie Ratté</i>	
Research on High-Quality Service Integration Oriented Network Technology and Architecture in Home Network	690
<i>Qiong Yao, Peng Sun, Hong Ni</i>	
Class Ordering Tool – A Tool for Class Ordering in Integration Testing	695
<i>Jutarat Jaroenpiboonkit, Taratip Suwannasart</i>	
Interactive Sharing of TS Files in Digital Home Network	700
<i>Xiaoyong Zhu, Qiong Yao, Peng Sun, Hong Ni</i>	

SESSION 12

Conceptual Framework of Information Retrieve and Reuse in Construction Projects	704
<i>Wenfa Hu</i>	
Diversity-Based Relay Selection for Multihop Cellular Networks	709
<i>Behzad Kasiri, Hadi Meshgi, Majid Naderi, Bahman Abolhassani</i>	
A Simple Permission Checking for Structural Parallel Programs	713
<i>Yang Zhao</i>	
Research on Transforming Relational Database into Enriched Ontology	718
<i>Zhenxin Qu, Shengqun Tang</i>	
The Method to Dynamically Determine the Optimal Parameter T_{min} for Energy Saving in IEEE 802.16e, with Light Traffic Load	723
<i>Mohammad Reza Sahebi, Arash Azizi Mazreah, Mahmood Fathy, Seyed Javad Hosseini</i>	
Predicting Protein Function Based on Genomic Data Mining	728
<i>Chang-xin Song, Xiaoming Wu, Bo Wang, Jingzhi Cheng</i>	
Scalability of Network Size on Genetic Zone Routing Protocol for MANETs	732
<i>P. Sateesh Kumar, S. Ramachandram</i>	
Research and Implementation of Campus Application Integration Based on SOA	737
<i>Zhang Gao, Xiaojun Kang, Rui Zhang, Shoucheng Deng</i>	
Multi-Dimensional Consolidation Theory for Cyclic Loadings	742
<i>Xueyu Geng</i>	
Securing Web OLAP Based on RBAC Model	747
<i>Samchart Fugkeaw, Piyawit Manpanpanich, Sekpon Juntapremjitt</i>	
The Splicing Method of Images of Rare Point's Feature Based on Artificial Fish-Swarm Algorithm	752
<i>Jie Song, Rong-Yan Sun, Yong-Jie Zhang, Na-Na Li, Jun-Hua Gu</i>	
Study on the Security of the New Generation E-Commerce Model	757
<i>Yunhe Li, Wu Shanyu</i>	

SESSION 13

Approximation of Image Shape by Half-Elliptical Arc Segments & Representation by Speech Sound Pattern for Visually Impaired Person	762
<i>Tanmay Bhattacharya, Manjur Alam, S. R. Bhadra Chaudhuri</i>	
Non-linear Consolidation of Soil with Vertical and Horizontal Drainage under Time-Dependent Loading	767
<i>Xueyu Geng</i>	
Visual Cryptography	772
<i>Ashutosh, Sayan Dev Sen</i>	
Development of an Instrument in Transformer Winding Distortion Measurement Based on Artificial Neural Network and S3C2410	775
<i>Liu Jun, Zhao Xueliang, Feng Jianhua, Wang Lei</i>	
Design of the Indoor Robot and Its Path Tracking Algorithm	780
<i>Xiao Zhihong, Guan Zongqi</i>	
Power Management in Wireless Sensor Networks by Enhancing the Thermo-Electric Properties of Their Circuitries	784
<i>R. Rahul, R. Kartik Arumuha Velu</i>	

The Method of Damaged Pavement Image Splicing Based on Image Pyramid and FCM Clustering.....	789
<i>Jie Song, RongYan Sun, YongJie Zhang, NaNa Li, JunHua Gu</i>	
A Kind of Structural Differential Point of S-Graph Based on Betweenness Centrality	794
<i>Yongfeng Diao, Jun Li</i>	
Bridging Hierarchical Ontologies for Interoperability and Query Reformulation	799
<i>Muhammad Safyan, Sharifullah Khan, Khalid Latif, Asad Masood</i>	
Design of Product Management Module Based on UML in Electronic Commerce	804
<i>Xiaoming Han</i>	
Research on Activity Based Use Case Meta-Model.....	810
<i>Ma Lei, Wei Chang Jiang</i>	
Applications of Bioinformatics Databases to Predict the Secondary Structure	814
<i>S. Arul Mugilan</i>	

SESSION 14

A Review on Approaches for Identifying Crosscutting Concerns	819
<i>Busyairah Syd Ali, Zarinah Mohd. Kasirun</i>	
Study on a Safe and Efficient Payment Model in E-Commerce.....	824
<i>Shao-ping Chen</i>	
Metagraph-Based Substructure Pattern Mining.....	829
<i>Deepti Gaur, Aditya Shastri, Ranjit Biswas</i>	
An Object-Oriented Modeling Approach to Process Knowledge Management	834
<i>Zhang Houdao, Sun Shudong, Zhang Zhenming</i>	
Design of E-Government Security System Based on Information Security Model	839
<i>X. F. Zhang</i>	
Active Set Fuzzy Support Vector ϵ-Insensitive Regression Approach	843
<i>Rampal Singha, S. Balasundaramb</i>	
Research on a Web Security Service System Structure Model	848
<i>Ke Ma, Chang-xin Song</i>	
ACE-Based Design and Implementation of the Network Server in Online Games.....	852
<i>Zhi-cong Liang, Ping Chen, Sheng-ming Hu, Liang Bao</i>	
Towards Building an Enhancement Approach for Improving the Performance of Shared Repository Pattern	856
<i>Adnan I. Al Rabea, Ibrahiem M. M. El Emary, Mutasam Okasheh</i>	
Threshold Sampling for Network Streaming Data Analysis	861
<i>Hai Zhang, Zhuxu Yang, Wenming Guo</i>	
Regression Testing Web Applications	866
<i>Abbas Tarhini, Zahi Ismail, Nashat Mansour</i>	
A Model of Shared Service Platform Based on Multi-Agent.....	871
<i>Hongmin Yang, Xiuguang Bai, Huayin Shu</i>	

SESSION 15

Region Growing Tree Delineation in Urban Settlements	876
<i>Lau Bee Theng, Choo Ai Ling</i>	
A New (t,n)-Threshold Secret Sharing Scheme	881
<i>Chunming Tang, Zheng-an Yao</i>	
Evolutionary Algorithm for Protein Structure Prediction	886
<i>Christine Kehyayan, Nashat Mansour, Hassan Khachfe</i>	
Research on Multi-Function Fault Management System Model Based on SNMP	891
<i>Ya Sun</i>	
Infrared and Color Visible Image Sequence Fusion Based on Statistical Model and Image Enhancement	895
<i>Xiuqiong Zhang</i>	
Reconfigurable Instruction Set Processor Design Using Software Based Configuration	899
<i>M. Aqeel Iqbal, Uzma Saeed Awan</i>	
Applications of Data Mining in the Education Resource Based on XML	904
<i>Chang-xin Song, Ke Ma</i>	
A Novel Algorithm for Video Smoothness Evaluation	908
<i>Ruifen Xu, Mingwei Zhang, Lin Jia, Yongli Li</i>	
A Frequent Item Graph Approach for Discovering Frequent Itemsets	913
<i>A. V. Senthil Kumar, R. S. D. Wahidabanu</i>	
Formal Analysis for Network Security Properties on a Trace Semantics	918
<i>Yun Jiang, Xifa Liu</i>	
Stability Analysis of Discrete Hopfield Neural Network	922
<i>Xiaochang Zheng</i>	
QCTC: QoS-Based Clustering Topology Control Algorithm for Wireless Sensor Networks	927
<i>Azadeh Forghani, Amir Masoud Rahmani, Ahmad Khademzadeh</i>	

SESSION 16

A New Approach for on Line Recommender System in Web Usage Mining	932
<i>Subhash K. Shinde, U. V. Kulkarni</i>	
The Development and Design of the Gas-Liquid Two-Phase Flow-Meter System Based on DSP	937
<i>Ji-wei Zhu</i>	
Modeling and Simulation of Three-Phase Voltage Source PWM Rectifier	941
<i>Wei Ke-xin, Wang Shui-ming</i>	
Image Retrieval Based on MD5	946
<i>Hancheng Liao</i>	
Ultra Sonic Sensor Based Blind Spot Accident Prevention System	951
<i>R. P. Mahapatra, K. Vimal Kumar, Gaurav Khurana, Roopam Mahajan</i>	
Design and Research Based on Fuzzy PID-Parameters Self-Tuning Controller with MATLAB	955
<i>Wang Xiao-kan, Sun Zhong-liang, Wanglei, Feng Dong-qing</i>	

Network Traffic Analysis Using Refined Bayesian Reasoning to Detect Flooding and Port Scan Attacks	959
<i>Dai-ping Liu, Ming-wei Zhang, Tao Li</i>	
GANN Snake for Object Extractions from High Resolution Satellite Imagery.....	964
<i>Lau Bee Theng, Choo Ai Ling</i>	
A Planning-Based Method of Risk Process Modeling for Information Security	969
<i>Wang Zhen-zhen, Wu Xiao-yue, Liu Zhong, Tan Xu, Cheng Feng</i>	
Energy Conservation Strategy in Cluster-Based Wireless Sensor Networks.....	974
<i>Nazila Eshghi, Abolfazl Toroghi Haghghat</i>	
Data Mining on Imbalanced Data Sets.....	979
<i>Qiong Gu, Zhihua Cai, Li Zhu, Bo Huang</i>	
A New Approach for Extracting the Contour of an ROI in Medical Images	984
<i>Liu Wei, Liang Yong Sheng, Ren Xian Yi, Duan Peng</i>	

SESSION 17

Throughput Analysis of Go-Back-N ARQ Protocol under Markovian Interruptions.....	989
<i>Dashdondov Khongorzul, Brian B. C. Shinn</i>	
A Reservation Protocols Based on Slotted ALOHA for Plastic Optical Fiber Network.....	996
<i>Ning Zhang, Ronghua Liu</i>	
CORP: A Casual Ordering Replication Protocol Applied to Storage Replication System.....	1001
<i>Wentao Zhan, Zhanhuai Li, Kun Ren, Jinpeng Hu</i>	
Readback Signal Reconstruction of a Partial Erasure Plus Transition Shift Model in a Pseudo-Linear Form	1006
<i>Tsai-Sheng Kao</i>	
Communication Mechanism of Search and Rescue at Sea Intelligent Decision Support System Based on RMI.....	1009
<i>Yu Weihong</i>	
Low-End Embedded Devices Access Jini Network Design.....	1013
<i>Xiong Jiang</i>	
The LGR Method for Task Scheduling in Computational Grid.....	1018
<i>Nima Jafari Navimipour, Leili Mohammad Khanli</i>	
Study on Vulnerability Model of Spacecraft Impacting by Orbital Debris	1023
<i>Chunmei Liu, Shunshan Feng, Xurong Zhang</i>	
Towards a Cellular Automata Based Network Intrusion Detection System with Power Level Metric in Wireless Adhoc Networks (IDFADNWCA).....	1027
<i>P. Kiran Sree, I. Ramesh Babu</i>	
Research on Parameter Optimization of the Boolean Kernel Function	1032
<i>Han Feng, Du Yingshuang, Cui Kebin, Zhang Shumao</i>	
The Advent of Industry Fit RFID Readers	1036
<i>M. J. Uddin, M. A. Hasan, M. I. Ibrahimy, M. B. I. Reaz, A. N. Nordin</i>	
Low-End Embedded Linux Platform for Network Security Application - Port Scanning Detector.....	1041
<i>N. Ahmed, Z. I. A. Khalib, R. B. Ahmad, Suhizaz Sudin, Salina Asi</i>	

Support Mathematical Instruction in Web-Based Learning System Using Object-Oriented Approach	1045
<i>Hussein Moselhy Sayed Ahmed</i>	
Spatial On-line Analytical Processing (SOLAP): Overview and Current Trends	1051
<i>Taher Omran Ahmed</i>	
Current Pumping and Voltage Pulling to Maximize Speed: An Application to a 2.5 Gbps Flash ADC in 350 nm Standard CMOS Process	1056
<i>Balasubramanian Sivakumar, Shankar Thirunakkarasu</i>	
Author Index	