2012 International Conference on Computer Science and Service System

(CSSS 2012)

Nanjing, China
11 - 13 August 2012

Pages 1-784

IEEE Catalog Number: CFP1281M-PRT
ISBN: 978-1-4673-0721-5

2012 International Conference on Computer Science and Service System

CSSS 2012

Table of Contents

Message from Local Committee Chair.....xli

Message from Program Chairs.....xlii

Organizing Committee.....xliii

Technical Program Committee.....xliv

Reviewers.....xlv

Sponsors.....xlvi

Session I: Computer Science and Technology

A New Semi Supervised FCM Algorithm Based on Mahalanobis Distance 3
Yang Xiyang and Li Zhiwei

Machine Vision Recognition of Auto-Hub 7
Song Chen

Knowledge-Aided Adaptive Subspace Detection in Partially Homogeneous Environments 10
Hongsen Xie, Peng Zhou, Baokuan Luan, Weijun Chen, and Huaming Tian

Dictionary Learning Research Based on Sparse Representation 14
Lijuan Song and Jinye Peng

A Different Approach to Off-Line Signature Verification Using the Optimal DTW Algorithm 18
Wei Tian and Jingyuan Lv

A Real-Time Process Scheduling Policy in Windows 22
Lifang Wang, Xing She Zhou, Ze Jun Jiang, and Aihua Zhang

A Research of Remote Sensing Data Service System Based on Mule ESB 25
Liu Yang and Liu Shi-Bin

Online Time Series Forecasting Based on Biorthogonal Wavelet Kernel Support Vector Machine 29
Huang Chao, Huang Li-Li, Jiang Hong-Yan, and Zhong Wei-Jun

Scene Visualization Based on Semantic-Visual Association 34
X. Zeng, M.L. Tan, and J.J. Liu

SCG and LM Improved BP Neural Network Load Forecasting and Programming Network Parameter Settings and Data Preprocessing 38
Changhao Xia, Zhonghua Yang, Bangjun Lei, and Qiufeng Zhou

Research on Clustering Algorithm for Massive Data Based on Hadoop Platform 43
Xu Zhengqiao and Zhao Dewei

Analysis of the NAT-PT Gateway 46
Zeng Chuanhuang and Hu Haonan

Research on Java Bytecode Parse and Obfuscate Tool 50
Le Yang and Huo-jiao He

Design of the Solar Photovoltaic System Data Acquisition Board 54
Yonghui Xing, Wenzhuo Chen, and Tao Xing

Research for Target Recognition of Infrared Bridge Based on Morphological Operator and Bridge Template 58
Wang Mingang, Wang Chao, and Fan Yingping

Research of Face Detection Based on Davinci Platform 63
Shuai Yuan, Guoyun Zhang, Jianhui Wu, and Longyuan Guo

The Precise Location Algorithm of License Plate Based on Gray Image 65
Honghai Liu and Xianghua Hou

Development of Cloud Cooperative Learning Style Scales: Applying Cloud Computing Concept on Cloud Cooperative Learning of Information Science Education 68
E-Soon Lin, Huann-shyang Lin, and Ching-Yang Chou

A Live Migration Strategy for Virtual Machine Based on Performance Predicting 72
Zhihong Li, Wei Luo, Xingjian Lu, and Jianwei Yin

Comparison of Several SNR Estimators for QPSK Modulations 77
Aifen Wang and Hua Xu

Non-parametric Non-line-of-Sight Identification and Estimation for Wireless Location 81
Jiping Li and Shixun Wu

A Linear-Space Top-Down Algorithm for Tree Inclusion Problem 85
Yangjun Chen and Yibin Chen

The Homotopy Analysis Method to Solve Time Fractional Partial Differential Equations 90
Xiurong Chen and Wenshan Cui

Heuristics Algorithms for Job-Shop Scheduling Problem: Critical Element Analysis 94
Sun Liang, Wang Xiao-Yuan, and Zhang Yun-Cai

Petri Net System of Iron and Steel Process Based on Technological Indicators 98
Yu Wang and Hong Bao

Analysis of Safety Evaluation to the Lightning Protection of Power Lines Based on 3D Platform 103
Chen Yong-Hua

Discretization Algorithm Based on Attribute Importance and Incompatible Degrees 110
Xue Qing, Yun Fei, Xu Wenchao, and Mao Yinxiao

A Hybrid Approach of Mapping Relational Database Schema to Ontology 113
Haichi Liu, Hong Ning, and Ting Wang

Place/Transition Sharing Composition and Application in Metallurgical Processes 119
Ya Jiang and Hong Bao

The Research and Application of the Integration Pattern of PDM and CAD in Aerosun 123
Qun Gao

Direction Relations Reasoning Based on Constraint Satisfaction Problems 127
Liu Zheng-lin, Chang He-yong, Gao Ai-hua, Guan Jian, and Wei Rui

A Hybrid PSO and Active Learning SVM Model for Relevance Feedback in the Content-Based Images Retrieval 130
Ma Cai-Hong, Dai Qin, and Liu Shi-Bin

On the Decomposition of Posets 134
Yangjun Chen and Yibin Chen

Research on the Evolution Model Based City Industrial Self-Organized Network 139
Zhang Youliang and Zong Gang

Research on the Model and Application of E-commerce Based on Cloud Computing 142
Huang Liu Qing

Method of Information Extracting from Section Map Based on ActiveX Technology 147
Xiu-ping Wang and Ting-chen Jiang

Contactless Method of Anthropometric Position Acquisition 151
Martin Ondriga and Pavol Božek

Design and Implementation of Display Terminals for DCP Demodulator Testing Device Based on Embedded ARM&WinCE 155
Heng Liu and Lihong Liu

The Technology of AIR Applied to Automation 159
Wenxiong Zhou and Yanyu Wang

The Research of Parallel CRC Pipeline Algorithm Based on Matrix Transformation 162
Xiaohui Wang, Liyun Zhuang, Qing Lu, and Shihu Wang

Instant Messaging Application for the Internet of Things 166
Kehua Su, Hong Cheng, Haofeng Wang, and Rui Lv

Remote Sensing Image Pyramid Model Based on Wavelet Multi-resolution Analysis 170
Yuan Yuwei, Quan Jicheng, Wu Jingwen, Liu Yu, Zhao Xiuying, and Wang Hongwei

Data Processing Strategies in Short Term Electric Load Forecasting 174
Yan Cao, Zhong Jun Zhang, and Chi Zhou

Application of Data Mining Technology in Online Audit 178
Aijun Yang and Ping Song

A Novel Multi-target Detecting and Tracing Method for Robot Vision System 182
Wei Benjie and Li Peng

Improved Efficient Identity-Based Encryption Scheme 187
Xu Chi and Zhang Wenfang

Random Inspection Policies for a Database System 191
Xufeng Zhao, Cunhua Qian, Syouji Nakamura, and Toshio Nakagawa

The Study of Design for Testability on Analog Circuit Based on Boundary-Scan 195
Haijun Lin, Zelong Hou, Fu Yao, and Zhang Xuhui

Construction of a Type of Novel Strengthening Buffer Operators Based on New Information 199
Jie Cui and Qianbing Li

Page Write-Related Sector Translation for Solid State Drivers 202
Chen Jinzhong, Yao Nianmin, Cai Shaobin, and Han Qilong

Stabilization Control for a Class of Nonlinear Systems with Uncertain Nonlinearity 206
Li Ning, Yang Chunzhi, and Liu Heng

Research of Vehicle Path Planning Based on Geometry Algorithm 210
Qing Xue and Qing Deng

Millimeter Wave Image Restoration Using a Modified T-S Fuzzy Neural Network 213
Li Shang, Pingang Su, Wenjun Huai, and Zhanli Sun

The Speed Detection Algorithm Based on Video Sequences 217
Wang Liang and Song Junfang

Canny Edge Detection Codec Using VLib on Davinci Series DSP 221
Zhiwei Tang and Dongqin Shen

Research and Implementation of Automatic Scoring System about Programming 225
Xiao Zhao, Liu Xuefeng, and Hou Yumo

Research on the Natural Language Querying for Remote Sensing Databases 228
Xuan Xuan, Liu Jianbo, and Yang Jin

The Urban Distribution Network Data Organization Based on the SuperMap GIS 232
Guo Jianhong and Qian Lianwen

Probe into Image Segmentation Based on Sobel Operator and Maximum Entropy Algorithm 238
Hui Zhang, Quanyin Zhu, and Xiang-feng Guan

Research on Agricultural Information Retrieve Based on Neural Networks and Ontology 242
Zhang Wenqing, Li Yuan, and Liao Yong

Adaptive Median Filter Based on SNR Estimation of Single Image 246
Zuoyong Li, Wenchao Zhang, and Wenru Lin

Welding Image Edge Detection and Identification Research Based on Canny Operator 250
Xianghua Hou and Honghai Liu

Research on Simulation System for Multi-satellite Imaging 254
Gao Jiajia, Zhang Wenyi, Han Qiong, and Mei Huaibo

Moving Detection Research of Background Frame Difference Based on Gaussian Model 258
Honghai Liu and Xianghua Hou

The Design of Electro-static Septum Control System for HIFRL-CSR Main Ring 262
Fuyuan Lin, Detai Zhou, Yanyu Wang, and Wenxiong Zhou

Study on GRAPS-ACO Algorithm for Irregular Flight Rescheduling 266
Zhao Xiuli and Guo Yanchi

Gyro Signal De-noising Based on a New Wavelet Threshold Function 270
Hai-Jian Xue, Xiao-Song Guo, Zhao-Fa Zhou, and Zhen-Ye Wang

Design of Mining Logistics UHF RFID Interrogator and Solution of Misreading Problem 275
Xia Hong and Ding Zhe-Zhuang

A Congestion Control Scheme Based on Improved RED Algorithm in Internet Topology Simulation 279
Zhao Jian-Peng, Guo Shi-Ze, Zheng Kang-Feng, and Zhao Shuang

Signals Collecting of Spot Welding and Processing CIrcuit Design 284
Li Ru-Xiong and Jiao Song-Hua

A New Efficient Stopping Criterion for BICM-ID System 288
Xiao Ying and Li Jianping

A New Ray-Tracying Acceleration Algorithm Based on Voronoi Diagram 292
Zheng-Wu Yuan and Dan-Dan Wang

Research Progress on Biodiversity Information System 296
Dai Xiao-Ting

SIP Security Architecture Based on Source Address Validation 300
Hu Jinlong and Liao Bin

Development of Digital Libraries on the Basis of Cloud Computing 304
Miao Wei, Feng Wang, and Xiaoshuang Xu

A Method of Collapsibility Classification Based on Probabilistic Neural Network 307
Shu-Hua Zhang

A Self-Reconfigurable Sensor Network Constructon Reaseach in the Paradigm of Internet of Things 311
Zhang Xinhua and Li Hong

Fatigue Life Predicting of Lead-Free Soldered Joints of QFP Device 315
Cui Junhua, Zhang Jiping, Song Yan, and Zhang Lixin

The Forensics for Detecting Manipulation on Part of Text 319
Wu Xiao-Mei, Li Ye-Zhou, Niu Shao-Zhang, and Meng Xian-Zhe

Tridimensional Map Synthesizing Method on Target Spread Probability Density and Searching Trajectory 323
Yu Xueyong, Zhu Qinghao, and Li Benjiang

An Efficient Simulated Annealing Based VLSI Floorplanning Algorithm for Slicing Structure 326
Zhu Lichen, Yang Runping, Chen Meixue, Jia Xiaomin, Li Xuanxiang, and Du Shimin

The Development of Online Virtual Factory Based on Database and Order Design 331
Zhi-ping Zhou and Jian-wei Wu

Adaptive Detection of Spread Targets in Nonhomogeneous Environments: A Bayesian Approach 335
Xiandong Meng, Zhiming He, and Xiaowei Niu

The Security Design of Digital Library 339
Wei Hongchang, Wang Qian, and Wu Xuefang

Research on Growth Model of Poplar Based on Modern Information Technology 343
Liu Xuning, Hu Hongqiang, Wu Pengfei, Shi Wei, and Zhang Genshan

Segmentation Method for Rock Particles Image Based on Improved Watershed Algorithm 347
Yuncai Zhou and Hui Ren

A New Method to Analyze Broadband Internet User Time Preference 350
Bin Yang, Ge Yang, Yinan Dou, and Zhenming Lei

Switched Computation Algorithm on Automobile Power Performance 355
Guifang Xie, Geng Zhu, and Jie Xiao

Study on Dynamic Change of Regional Landscape Based on RS and GIS 360
Xin-Shao Zhou, Yin Li, Chao-Kui Li, and Yan-Yang Lu

A Method of Target Range Determination from Bearing Rate 364
Zhu Qinghao and Yu Xueyong

Research on Attribute Synthetic Assessment Method 368
Zhu Xiaochen, Guan Cong, Yuan Huawei, and Chen Nan

The Study of Image Feature Extraction Based on Independent Component Analysis 373
Ping Xie

Multi-layered Features with SVM for Text-independent Speaker Verification 377
Yin-Guo Li, Qin Wei, Thomas Fang Zheng, and Yang-Rui Yang

Study of the Process Modeling Based on Petri Net 380
Zong Ping, Qin Jun, Han Chen, and Lu Xi

Application of Elliptic Curve Digital Signature in the Voting Scheme of E-government 385
Zhuo Liu and Shiping Yang

Efficient Text Classification Method Based on FPGA 389
Xinghua Fan and Ying Liu

Nonlinear Decomposition of High Spectral Mixture Pixel Based on Approximate Hapke Model and Single Physical Volume Method 393
Jia Liu and Guoqing Yao

A Blind Watermarking Technology Based on DCT Domain 397
Fang Ma, JianPing Zhang, and Wen Zhang

The Design and Implementation of Primitives in Column-Oriented Database Based on Multi-core Architecture 401
Sitong Chen, Zhen Zhen, Guanzhao Li, and Hu Chen

Tracking Framework of Data Provenance Based on Semantic Annotation 405
Guoyan Xu, Zhijian Wang, and Li Yang

DALB: A Dynamic Application-Sensitive Load Balancing Algorithm 409
Hao Jiang, Wei Luo, Chi Feng, Yan Tang, and Jianwei Yin

Design and Implementation of Enterprise Financial Pre-warning System Based on BP Neural Network 413
Dawei Liu

A Context Migration Method Based on the Availability Prediction of Web Service 416
Liu Yang An, Yong Zhong Huang, and Xu Zhao

Sampled-Data Synchronization for Complex Dynamical Networks with Time-Varying Coupling Delay 420
Mei Fang

Session II: Software Engineering

Theoretical Analysis of the Shapes of Biomembrane Vesicle Using Mathematica Software 427
Kang Wen-Bin, Zhang Peng-Cheng, and Luo Hong

The Research of Word Resource Management System Based on Open XML 431
Dan Liu, Jun-Hui Zhang, Liu Liu, Xiao-Dong Zhang, Ming-Hua Li, Teng-Fei Ai, and Li Li

An Interaction Behavior Verification Model Based on AOP Technology 434
Wang Xiaoxi and Wang Dan

APEXER: A Real-Time ARINC653 Interface Simulator 438
Tan Longhua, Du Chenglie, and Song Cuiye

Software as Service Cloud 442
Gurudatt Kulkarni, Sandhya Mandhare, Dipali Bendale, Shrikant Belsare, and Niraj Patil

A Pinyin Input Method Editor with English-Chinese Aided Translation Function 446
Dong Li

The Application and Development of Software Testing in Cloud Computing Environment 450
Peng Zhenlong, Ou Yang Zhonghui, and Huang Youlan

A Trust Measurement Model Based on API Calls 455
Sun Haoyang, Wang Dan, and Zhao Yifang

Method of Military Software Quality Evaluation Based on Multi-agent Fuzzy Neural Network 459
Xudong Miao, Yansheng Lu, and Yao Dai

Urban Traffic Condition Analysis Based on GPS Floating Car Data 463
Xingquan Liu, Sixuan Liu, Zhiqiang Chen, and Minwen Tang

Control and Test for Folded Framework with Two Sections 467
Bo Tan, Hua Zheng, and Chengming Pei

A Behavior Feature Generation Method for Obfuscated Malware Detection 470
Rui Wang, Xiaoqi Jia, and Chujiang Nie

Study on the Characteristic and Sharing Strategies of Exception Test Cases 475
Jimao Wang, Ping Yin, and Huiying Zhang

The Design and Realization of Tooth Code System Based on VC++ 6.0 and Access 479
Haifeng Zhang and Wei Zhang

The Design of Embedded Video System Based Boa Server 483
Zhao Hongwei, Chen Xiao, Li Zhuo, and Bao Huanyu

A New Algorithmic Approach to Detect the Good Point Access in the Precautionary Process for Data Quality 487
Seyed Mohammad Hossein Moossavizadeh, Mehran Mohsenzadeh, and Nasrin Arshadi

Study on Usability Engineering of the Command and Control Software Design for Armored Vehicle 491
Jianming Chen, Yake Xuan, and Chuanyang Jin

Classification of Cross-Correlation Functions for Speaker Localization 494
Xinwang Wan and Juan Liang

The Case Study for the Basic Information Service of Job Post Resource Based on Web Mining 498
Qingxia Kong, Yang Cai, and Quanyin Zhu

The Application of Optimized Particle Swarm Algorithm in Non-paper Examination 502
Zhou Liang, Ke Lixin, Kaijun Wu, Gong Jianmin, and Hua Jian

Antenna Circuit Design and Simulation for the Reader of 125 KHz RFID 507
Haifeng Zhang and Xiaoyan Lv

A Fully Integrated LC VCO with 1V Voltage Supply in 0.18μm CMOS Process for Wireless Sensor Network Applications 511
Wang Yujie, Fan Xiangning, and Li Bin

Improvement on RFID-based Binary Anti-collision Algorithm 515
Yang Yongkang, Cui Chunsheng, Zhou Tuanfeng, Li Xiang, and Huang Liping

An Intelligent Framework for Plotting Using Functions 519
Feng Pan

Implement of a Light-Weight Integrated Virtualized Environment Manager for Private Cloud Computing 523
Xiaocheng Liu, Xiaogang Qiu, Xu Xie, Bin Chen, and Kedi Huang

The System Architecture for the Basic Information of Science and Technology Experts Based on Distributed Storage and Web Mining 527
Quanyin Zhu and Pei Zhou

Portability of Dalvik in iOS 531
Gao Shixiang and Zheng Tao

Using an Ensemble Classifier on Learning Evaluation for E-learning System 538
Liang Kai and Zhou Zhiping

Design and Implementation of Safety Production Workflow Management System 542
Zhu Shi-Dong, Zhou Zhen-Liu, and Tian Gui-Yan

A Traceability Approach to Constructing Feature Model from Use Case Models 545
Yanyan Lin and Xiaofeng Zhou

Service-Oriented Domain Analysis Method 549
Chenglong Xu, Xiaofeng Zhou, and Mingyi Liu

The Application of Domain Engineering in MGIS Dvelopment 553
Mingyi Liu and Xiaofeng Zhou

A Comparative Study between Soft System Bus and Enterprise Service Bus 557
Gang Li, Jian Xiao, Chun Li, Sen Li, and Jingde Cheng

Strong Atomicity: An Efficient and Easy-to-Use Mechanism to Guarantee Atomicity 562
Kai Lu, Wenzhe Zhang, and Xu Zhou

Software Safety Certification Framework Based on Safety Case 566
Fuping Zeng, Minyan Lu, and Deming Zhong

Study on Performance Test of Storage Structure Base on State Scene Performance 570
Li Li, Lei-Lei Zhu, Hongyu Zhai, Dan Liu, and Hai-Fang Wang

Performance Analysis between Different Decision Trees for Uncertain Data 574
Xiaoming Peng, Haoran Guo, and Jianmin Pang

The Test Case Design Method Based on Software Security Analysis 578
Liu Wen-Hong and Wu Xin

Automated GUI Test Case Generation 582
Lu Lu and Ying Huang

Session III: Networks

Research on Data Attribute Reduction for Network Security Situation 589
Wang Yanbo, Wang Huiqiang, Wang Xiufeng, and Yu Ming

Design of Conformance Testing System for BGP Protocol of IPv6 Based on XML 594
Peng Zhai, Lu Qi, Liping Zhang, and Bin Zhao

Detection and Control of Anomaly Network Data Flows 597
Zhang Wenfang and Xu Chi

MPLS Traffic Engineering Load Balance Algorithm Using Deviation Path 601
Fenglin Li and Jianxun Chen

Availability-Based Routing Algorithm Using AHP Method in IP/MPLS Networks 605
Hamid Naderi, H.S. Shahhoseini, and A.H. Jafari

The Design Method of Network Chat System Based on Socket and Cloud Computing 610
Minqiang Cai

Fast Packet Classification Algorithm for Network Video Stream 614
Zhang Huan

Design and Improvement of Chinese CAPTCHA Based on Mathematical Expression 617
He Ding-Hua

EPON Based Communication Service Framework under Coal Mine 620
Kui Lu and Shunxiang Zhang

Research on the Technology of Secure Access to Online Geographic Information Services Based on SSL-based Token 624
Xiaoya Lu and Jianchuan Liu

Research and Achievement of a Way to Improve the Data Transmission Reliability of UDP 627
Li Guo and Li Chengtong

A Hybrid Localization Algorithm for Improving Accuracy Based on RSSI/AOA in Wireless Network 631
Fan Dai, Yaping Liu, and Lin Chen

The Research on Network Communication Based on IPV6 Technology 635
Chao Qi and Jinyong Wang

A View of P2P File-Sharing Service 639
Gengyu Wei, Zhizhao Wang, and Deyu Yuan

Comprehensive Effectiveness Evaluation on Communication Support Based on AHP and Combination Weighting Approach 643
Lan Yun, Liu Sheng-peng, and Zhang Qian

Research and Application of CWMP in Distributed Network Management System 647
Ling Zheng, Yanxiang Hu, and Shuangbao Chen

Design and Research of the Data Acquisition System Based on the Mass DMA Transmission 651
Xiang Wang and Dan Tian

Research on P2P Repeated Game Trust Model Based on Unknown Node Type 655
Jixun Gao and Yunhong Guo

Design and Implementation of Coldfusion-Based Web Application Firewall 659
Feng Fangmei, Changgeng Shao, and Dan Liu

Research on Dynamic Message Routing for ESB Based on Message System 663
Chen Yuan, Ni Dan, Shi Hua-Ji, and Guo Jia-Hu

Research on the Optimized Solution for Geological Survey Data Disaster Tolerance Technology 666
Yuda Chen, Yongquan Wan, and Li Li

Optimized Settings and Problem Analysis of Hard Disk Protect Cards for Network Room 669
Ke Zhang, Fuwen Zhang, and Jinhui Li

An Artificial Immune Model with Danger Theory Based on Changes 672
Mengjia Yin, Tao Zhang, and Yuan Shu

Small-World Based Trust Evaluation Model for Web Service 677
Zhenmei Yu and Fengming Liu

Design Data-Processing Programs for Remote Time Calibrations Center 681
Wang Xiang, Li Xiaohui, and Liu Ya

Implementation and Optimization of the High Performance SHA-1 Model Based on FPGA 687
Tang Qiong and Ye Jianwu

A Digital Watermarking Algorithm Based on Discrete Fractional Fourier Transformation 691
Jun Lang, Jin-Ying Sun, and Wen-Fang Yang

Ontology Description of Smart Home Appliance Based on Semantic Web 695
Yuwei Zhnag, Zhiqiang Wei, Yongquan Yang, and Chao Song

Comparison of Dynamic Trust Management Model in Cloud Computing 699
Zhang Hengxi, Li Chunlin, Zhang Xiaoqing, and Qian Qiongfen

Analysis and Improvement of Chord Protocol 702
Wang Biqing

An Efficient Provable Data Possession Scheme with Data Dynamics 706
Chaoling Li, Yue Chen, Pengxu Tan, and Gang Yang

Ensuring Dynamic Data Integrity with Public Auditability for Cloud Storage 711
Long Chen and Hongbo Chen

An Incentive Scheme for Optimizing the Performance of Data-Driven P2P Streaming System 715
Guowei Huang, Zhi Chen, and Wen Fan

Task Scheduling Based on Genetic Algorithm in Mobile Grid 719
Qing Jiang, Xianglin Wu, and Haolan Yang

A Model-Based Deployment Framework of Integrated Public Cloud Service 723
Ze-Yuan Wang, Qing Li, Zhi-Chao Cao, Wei-Hua Li, Jun Li, and Rui-Yang Du

Design of Intelligence Multi-agent for Virtualization Resource in Cloud Computing 729
Liuyang Wang, Yangxin Yu, and Huai Zhou

Research and Design of Concurrent Web Server on Linux System 734
Hong Lan and Xuan Wang

An Efficient Clustering Algorithm for Microblogging Hot Topic Detection 738
Hao Tu and Jin Ding

Enhancing Learner Autonomy in WBLL Environment in Chinese Universities 742
Yan Ma

Optimizing H.264 Decoding with Assembly Language on ARM Platform 746
Zhang Xingming and Luo Xiao

Wind Farm SCADA System's Web Implementation Based on the Comet Technology 750
Qiang Zhao, Xinqian Wu, Meng Zhou, and Ertao Liu

A Task-Based English Autonomous Learning Mode in Web-Based Environments 754
Zhi Wen

One Load Balancing Solution for Mobile Video Surveillance System 757
Zhang Xingming and Zhan Shaoxin

Performance Improvement of DSS Based on High-Definition Video on Demand 761
Zeng Hao, Cao Guang-Li, and Che Hua-Xiang

Design of Mobile Video Surveillance Based on Android 765
Hao Zeng, Hua-Xiang Che, and Guang-Li Cao

Ontology-Based Semantic Fusion of Traffic Information 769
Wangdong Yang and Qing Zhu

Topology Building for Multi-hop Wireless Networks Based on 802.11Ext Physical Layer in NS2 773
Zhang Sanfeng, Li Shuang, Zhang Xiang, and Ji Yi

A Comprehensive Evaluation Model of Network Information Security Based on Interval-Valued Fuzzy Mathematics 777
Dongsheng Chen and Xin Li

Analysis of TCP BIC Congestion Control Implementation 781
Wu Hua and Gong Jian

Super VLAN Technique Applied to Network Reform 785
Lin Qi and Jinfang Li

A Model of Collaborative Intrusion Detection System Based on Multi-agents 789
Zhang Ran

Estimation Packet Loss Ratios for the Two Segments of End-to-End Path on the Monitor 793
Guang Cheng and Zhongyao Gao

A New Anonymous Communication Model Based on Peer-to-Peer Network 797
Yaping Zhang, Qian Ma, Lina Bo, and Zhuo Cheng

Secure Re-authentication Scheme for 3G-WLAN Integrating Network Based on Protocol Composition Logic 800
Tao Feng, Hui Chen, and Jian-feng Ma

Research on Extracting Method of Evaluation Index System for Telecom Data Network Based on ITU-T X.805 806
Huang Wenhua

A Blocking-Free Shared-Media Terminal Connection Setup Method 810
Huang Tang, Xiangning Chen, and Jichun Zhang

An Efficient Mutation-Based Fuzz Testing Approach for Detecting Flaws of Network Protocol 814
Zhao Zhang, Qiao-Yan Wen, and Wen Tang

Community Detection by Analysing Spread of Behavior in Complex Networks 818
Zhitong Su and Lingling Gong

Secure Pairwise Key Establishment for Key Predistribution in Wireless Sensor Networks 822
Long Yin, Wen Qiao-Yan, Jin Zheng-Ping, and Shi Meng

BER-aware-Based Lightpath Setup Approach in GMPLS-controlled Optical Networks 826
Liang Zhao and Yiqiang Hua

Study of QoS Scheme in GPON 830
Cheng Chuanqing and Zheng Qin

Stream Cipher Based on Quasigroups with Keystream Period of Arbitrary Length 834
Juanjuan Zhang and Yunqing Xu

The Application of Threshold Secret Sharing in Key Agreement Scheme for MANETs 837
Zong Hui, Chen Li-Qing, and Zhu Quan-Yin

Robustness of Protein Complex Networks 841
Chien-Hung Huang, Szu-Yu Chou, and Ka-Lok Ng

A Novel Public Key Cryptosystem Based on Ergodic Matrix over GF(2) 845
Jing Zheng-Jun, Jiang Guo-Ping, and Gu Chun-Sheng

A Privacy-Preserving Access Control Protocol for Database as a Service 849
Zhe Jia, Lei Pang, Shou-shan Luo, Jian-yi Zhang, and Yang Xin

RSA-based Convertible Nominative Signature Scheme 855
Wei Zhao, Yong Peng, Feng Xie, and Jingjing Wang

Feature-Based Color Image Watermarking Using Intensity Probability Density and Color Invariance Model 859
Pan-Pan Niu, Xiang-Yang Wang, and Ming-Yu Lu

Research and Implementation of OEP Search Based on API-monitoring 863
Han Yang, Dan Liu, Zhongshu Zhao, and Yichao Li

Certificateless Blind Signcryption Scheme with Message Recovery Design 867
Qin Hai-Sheng, Zhang Lei, and Feng Yan-Qiang

Android Permission Re-delegation Detection and Test Case Generation 871
Jiagui Zhong, Jianjun Huang, and Bin Liang

Research and Implementation on Remote Disaster Recovery System 875
Honglin Han, Lin Li, and Dehai Zhu

Risk Assessment of Mobile Payment System Security Based on Extension Theory 880
Juncai Zhang, Jinhui Zhao, and Xun Qian

Ranut: A Labeled Transition System-Based Model for Trust Management 884
Gai Xinmao, Wang Mingyang, and Wang Bo

A New Key Management Scheme for Strcutrued P2P Systems 888
Yang Deng-Qi and Zuo Guo-Chao

Session IV: Communications

Joint Source Channel Decoding for Compressed Subband Coded Image Transmission in Communication Network 895
Wei Tian and Jing-Yuan Lv

An Improved Localization Scheme Based on Anchor Selection in Wireless Sensor Networks 899
Wu Xiaoming, Wu Hua, Liu Yang, and Wang Ran

Blind Separation of Mixing Chaotic Signals Based on ICA Using Kurtosis 903
Yang Jianning and Fang Yi

Research and Design of Interception and Control Model in Video Communication System Based on SIP 906
Lin Ge, Xinsheng Ji, and Caixia Liu

Locator/Identifier Split Network Based Cross-Layer Roaming Mechanism 910
Zhihong Liu, Yaping Liu, Guanfeng Zhang, and Zhenghu Gong

Underground Building Fire Emergency Communication Network Based on Mesh Networks 914
Zhiping Wang and Zeng Li

Multipath Routing Algorithm with Heterogeneous Sensor Network for Beach Environment Monitoring System 918
Xiaoxia Wan and Guomin Wu

A New Color Digital Image Scrambling Algorithm Based on Chaotic Sequence 922
Lu Shou-Dong and Xu Hui

Enabling Re-encryption of Hierarchical Verifiable Permutation Scheme for Bittorrent Chunk Exchanges 926
Jian Wang, Xiaolin Xu, Xiumei Wu, and Yinchun Yang

Study on Website Search Engine Optimization 930
Zhou Hui, Qin Shigang, Liu Jinhua, and Chen Jianli

Design of a QoS Control Scheme for Real-Time Mobile Video Based on H.264 934
Sun Mifen and Zhang Xingming

Research of Architecture and Application of Internet of Things for Smart Grid 938
Ling Zheng, Shuangbao Chen, Shuyue Xiang, and Yanxiang Hu

A Method to Design CEM Metrics for Telecommunication Services Based on Customer Touchpoints Analysis 942
Chen Zhang, Zhou Wen-An, Chen Jian, and Guo Hai-Sheng

Analysis and Design of Botnet Detection System 947
Wu Xianghua and Cao Lijun

Flow-Based P2P Traffic Behaviors Research 951
Chengping Ji and Mingyang Ji

Social Topic Detection for Web Forum 955
Yue Zhang and Hongli Zhang

A Detailed Classification of Flash Events: Client, Server and Network Characteristics 960
Rashpinder Pal, Sunil Kumar, and Rupinder Lali Sharma

A Virtual Cluster Based Mobile Beacon Aided Localization Algorithm in Wireless Sensor Networks 964
Qiang Zhang and Jian Zhang

Design of Mine Safety Monitoring System Based on ZIgbee and Web 968
Liyun Zhuang, Yunlong Wang, Xiaohui Wang, and Qing Lu

Performance Study of Routing Mechanisms in Heterogeneous WSNs 971
Miao Yu, Guang-wei Bai, and Hang Shen

Center Fusion Algorithm in Wireless Sensor Networks Based on Ant Colony Algorithm 975
Ziqiang An

RFID Technology and Network Construction in the Internet of Things 979
Na Deng

Security Implementation for a VoIP Server 983
X. Wei, K. Sellal, and Y. Bouslimani

Design of Wireless Sensor Network Based on Random Linear Network Coding 986
Wei Ou, Zhixin Yang, Liang Tang, and Guan Zhongyang

A New Key Management Protocol for Wireless Sensor Network 991
Bu Shanyue and Chen Liqing

A Study of Three-Dimensional Sensor Network Deployment for Pipeline Systems 995
Huaping Yu and Mei Guo

Active Measurement on P2P Swarm Based on Coupon Collector Model 999
Yadong Chen, Tianhuan Qin, Xin Huang, Zhe Yang, and Lingzhi Li

A Novel Fault Diagnosing Architecture for Campus Wireless Local Area Network 1003
Fan Dai, Yaping Liu, Lin Chen, and Shuo Zhang

Queuing States Analysis on a Hybrid Scheduling Strategies for Heterogeneous Traffics in IOT 1007
Wen-Xiang Li, Jun Xu, and Hao Jiang

Application of the Internet of Things Technology in Precision Agriculture IRrigation Systems 1009
Sanbo Li

Handover Mechanism Based on Care-of Prefix Pool in VANET with NEMO 1014
Bin Zheng and Yuliang Yang

Radar Target Location Based on Compressive Sensing Technique 1018
Fanghua Li and Fanzi Zeng

Resource Allocation in Multicast OFDM System with Approximate Rate Proportion 1022
Hong Tang and Cong Sun

Research on Intelligent Searching of Agricultural Information Based on Ontology 1026
Duan Liying, Li Hongjuan, He Dongbin, Wen Zhe, and Liu Xuning

A New Monitoring System for Metal-Oxide Arresters 1030
Yan Peng, Zhan Wu, and Qiyang Li

BP Neural Network for Human Activity Recognition in Smart Home 1034
Hongqing Fang and Lei He

Improvement of Cluster Heads Choosing Algorithm Based on LEACH Protocol 1038
Xu Jian-Zhen, Ran Jiu-Hong, and Jiao Yang

Study of Underwater Acoustic Communication Technology Based on Hilbert-Huang Transform 1042
Lu Yin, Bing Chen, and Ping Cai

Performance Improvement of Session Initiation Protocol 1046
Yang Peng, Ma Zhicheng, Li Yujie, and Li Xiaojing

Design of Wireless Mine Gas Monitoring and Control System Based on nRF2401 1051
Panfeng Zhang, Lingkun Ma, and Huizhen Li

Improving Performance for Video Stream in Wireless Networks 1055
Li Ming and Wu Yanling

Research and Implementation of IPTV Video Calls Based on the IMS Network 1059
Hao Zeng and Xu-Bo Peng

Route Maintenance Strategy Based on the Packet Lost Distinguish for Space Information Networks 1063
Liu Jun, Han Huan, Geng Rong, Zheng Zhong, and Li Shao Hua

Range-Free Monte Carlo Localization for Mobile Wireless Sensor Networks 1066
Ju Mei, Di Chen, Jinyan Gao, Yuanshou Gao, and Lekang Yang

Study on the Mobile LBS Development Model 1070
Peigang Qiu, Jing Zhang, and Jianqiu Zeng

Design and Realization of the PoC System with Short Session-Setup-Delay 1075
Dawei Ma, Wei Huang, Qiang Sun, Wei Li, Caihua Yin, and Zhiqiang Shao

The 8-bit Parallel CRC-32 Research and Implementation in USB 3.0 1079
Ying Wu and Yuehong Qiu

Multi-source Information Terminal of Proactive Based on S3C6410 1083
Liu Di and Yang Feng

Research on Link Optimization of Overlay Network 1087
Yanmei Zhang, Huaihu Cao, and Jianming Zhu

Research on Mobile Communication in IPv4/v6 Mixed Networks 1091
Leiyong Guo and Zheng Xiang

Research of Intermediate Frequency GPS Signal Simulator Based on FPGA 1095
Gao Yue-yun, Li Yong-hong, Feng Qiao-ling, and Wang Yu-long

A Context-Aware Fine-Grained Access Control Model 1099
Liu Hong-Yue, Deng Miao-Lei, and Yang Wei-Dong

Research on the Repeater Distribution Based on Monte Carlo Method in Wireless Senor Networks 1103
Liu Ban-teng, Ren Tiao-juan, Wang Zhang-quan, Yu Li-zhe, and Chen You-rong

The Research on Dynamic Risk Assessment Based on Hidden Markov Models 1106
Xiaorong Cheng and Yangdan Ni

Design of Distributed Wireless Security Alarm System 1110
Wu Hua, Wang Cheng, Zhang Guangyuan, and Fan Weidan

One Sub-carrier Allocation Algorithm in the WPDM-CDMA System Based on Joint Function 1114
Jiaojun Li, Na Tang, Liyun Su, and Anzhi Chen

Optimal Cross-Layer Design Based on Source Adaptive Transmission in Cooperative AF Communication System 1119
Li-Li Xiao and Li-Juan Li

Design of a New Intrusion Detection System of WSNs 1123
Huangzhong Hua and Shunhua Li

Certificateless Based Chameleon Hash Scheme 1126
Hongxia Hou

A Routing Failure Node Detection Method of Wireless Sensors Based on Binary Encoding 1130
Xunxun Chen, Dapeng Man, Wu Yang, Wei Wang, and Shichang Xuan

Design and Implementation of Database Encrypting Middleware 1134
Hao Wenning, Zhang Hongjun, He Dengchao, Chen Gang, and Zhao Shuining

Adaptive Spray and Wait Routing Based on Relay-Probability of Node in DTN 1138
Jun Liu, Meisi Tang, and Geng Yu

Simulation and Analysis on RTLS Airborne Passive Location Algorithm 1142
Shuxin Chen, Hao Wu, and Hengyang Zhang

Study on Cognitive Radio Based Wireless Access Communication of Power Line and Substation Monitoring System of Smart Grid 1146
Binglin Li, Bo Zhang, Jinghong Guo, and Jiming Yao

Performance Evaluation and Optimization of NCOR Methods in Wireless Mesh Networks 1150
Zhang Sanfeng, Li Shuang, Huang Di, and Zhang Xiang

Improvement Method of SSL Protocol Identity Authentication Based on the Attribute Certificate 1154
Wei Li, Shuyue Xiang, and Shuangbao Chen

The Application Research of Mobile Agent to Distributed Simulation 1158
Wang Cheng, Wu Hua, Pang Xi Yu, and Zhang Guang Yuan

A Method of Improving Qualities of True Random Sequences Based-On Wavelet Analysis 1162
Fan Yu Tao and Su Gui Ping

Clock Synchronization Using Expectation-Maximization Algorithm in Wireless Sensor Network 1166
Xiali Li, Min Xi, Yongcun Cao, and Yong Lu

SIP-based WIMAX Wireless Video Surveillance System 1170
Luo Yong-Mei, Wei Bo, and Jin Zhi-Gang

Comparison between JSON and XML in Applications Based on AJAX 1174
Boci Lin, Yan Chen, Xu Chen, and Yingying Yu

SQLIMW: A New Mechanism against SQL-injection 1178
Gao Jiao, Chang-Ming Xu, and Jing Maohua

A Link Interference-Avoidance Topology Control Algorithm in Ad Hoc Network 1181
Hui Chen and Yongfeng Ju

Smart Meter Reading System Based on the WIA Wireless Network 1185
Jian-Long Huang, Ying-Nan Wang, Zhong-Feng Wang, Hong-Qun Gu, and Li-Gang Li

Based on the General Active Broadband Marking Machine Radar Calibration Research 1189
Dongli Liu, Jun Teng, and Xiaofang Shao

Research of Population Prediction Based on GA-BP Neural Network 1193
Chen Shihong and Liu Xiaoqing

ATR System Based on the K-M BP Neural Network 1197
Zhijie Yuan, Chengpo Mu, Yuanqian Chen, and Jia Song

LE-VBF: Lifetime-Extended Vector-Based Forwarding Routing 1201
Xiong Xiao, Xiao Peng Ji, Guang Yang, and Yan Ping Cong

QoS Routing Algorithm Based on Parameter Adaptive Ant Colony Optimization 1204
Mao Yuxing, Zhang Hongjun, Zhao Shuining, Hao Wenning, and Liu Bin

Spatial Data Organization and Encoding Based on SVG and Its Application to WebGIS 1208
Xinchuang Wang and Shidong Wang

Equipment Fault Diagnosis Based on Self-Organizing Neural Network 1212
Li Fang-Xi, Chen Gui-Ming, Zhang Qian, and Fang Xiao-Dong

Survey on Secure Transmission of Network Coding in Wireless Networks 1216
Ming He, Lin Chen, Hong Wang, Zhenghu Gong, and Zhihong Liu

The Optimization and Application of GPRS Time Based Charging Module 1220
Ying Wen, Yong Cheng, Xiaofeng Liu, Jun Ye, and Xiaole Li

Research on Design Principles of Elliptic Curve Public Key Cryptography and Its Implementation 1224
Bai Qing-Hai, Zhang Wen-Bo, Jiang Peng, and Lu Xu

Research and Simulation Analysis of UWB Indoor Channel Model 1228
Jingying Ren, Chaofeng Cai, Hongmei Zhao, and Zehui Xie

Single-Relay Selections with Amplify Forwarding and Network Coding in Two-Way Relay Channels 1232
Hongtao Pan and Chunkai Chen

Spread of Behavior in Unstructured Peer-to-Peer Networks 1236
Wenming Ma, Yujie Zhang, and Xiangwu Meng

Dynamic Disperse and Shrink Anti-collision Algorithm for Radio Frequency Identification 1240
Wang Hong-yi, Yang Qing, Wu Jian-fei, and Li Jian-cheng

An Energy-Efficient and Low-Collision IEEE 802.15.4-Based MAC for Data Gathering in Wireless Sensor Networks 1244
Yiqun Zhuang and Lixiang Ma

The Study on WSN Node Positioning Algorithm Improvement 1248
Huang Zhonghua and Li Shunhua

A New Adaptive Steepest Descent RLS Multi-user Algorithm 1250
Weiting Gao, Hui Li, and Gang Xing

Two-Way Real-Time Authentication System Based on Dynamic Password and Multi-biometric 1254
Hao Zuo, Yongju Shen, Shuxian Li, and Huijun Shen

The Research and Design of an Anti-open Junk Mail Relay System 1258
Lixin Ke, Liang Zhou, Jianmin Gong, and Jian Hua

Flexible Programmable Gain Amplifier for Reconfigurable Direct-Conversion Receiver 1263
Ma Liangyi, Fan Xiangning, and Bao Kuan

The Improvement of RSS-based Location Fingerprint Technology for Cellular Networks 1267
Liu Xin-Di, He Wei, and Tian Zeng-Shan

A Hop-by-Hop Transport Protocol for Interplanetary Backbone Networks 1271
Sun Haoliang, Hu Xiaohui, and Liu Lixiang

Design of Sample-and-Hold Circuit for a Reconfigurable ADC 1276
Yan Xiang, Fan Xiangning, and Zheng Hao

Multi-component High-Rrder FM Signal Estimation and Suppression Based on Radon-MPF-ambiguity Transform 1280
An Jian-Ping, Xue Bin, Kang Jing, and Hu Ya-Yun

An Advanced Congestion Control Mechanism Based on Distributed Storage for DTN 1285
Yun Yang, Longsheng Han, Wenchun Xu, Xiuping Kong, and Ran Yan

Session V: Knowledge Service and Management

Assessment and Comparative Analysis of RDF Visualization Technology 1293
Shuren Li, Tao Yang, Na Hong, and Shiting Xu

The Application of Wavelet Transformation in Image Registration Based on the Maximum Mutual Information 1297
Zhao Xiao-Lei

Computer Base Research on Human Living Organ Transparent Visualization Method 1301
Zhou Zhi-Zun, Sun Yan-Bin, Zhao Jun-Chang, and Cui Bao

Machine Translation Based on Direct Matching between Text and Pattern 1305
Wu Hong-lin, Liu Yi-yang, and Liu Shao-ming

An Ontology-Based Service Platform for Scientist Knowledge 1309
Shiting Xu, Shuren Li, Baoping Yan, and Jianhou Gan

Application of Genetic Neural Network on Lifeless-Repairable Spares Consumption Forecasting 1313
Guo Feng, Zhang Su-Qin, Zhang Deng-Bin, and Gao Wei

Research of Driving Manipulation Modeling and Simulation 1316
Qing Xue, Xiaoming Ren, Changwei Zheng, and Yonghong Liu

Designation of Spares Consumption Quota Data Warehouse 1320
Feng Guo, Chen-yu Liu, Da-xiao Li, Zhe Wang, and Lei-lei Zhang

A Method for Chinese Text Classification Based on Three-Dimensional Vector Space Model 1324
Jixian Zhang, Qinglin Wang, Yuan Li, Dongmei Li, and Yuexing Hao

Research on Knowledge Service Model and System Architecture 1328
Xinghe Wu, Min Yao, and Peile Zhang

The NoSQL Principles and Basic Application of Cassandra Model 1332
Guoxi Wang and Jianfeng Tang

Design and Application of Data Mining Algorithms Library Based on Web Service 1336
Yangu Zhang, Suyu Zhang, and He Huang

The Analysis of the Anomaly Characteristic of Heart Sound Based on Heart Sounds Segmentation Algorithm 1339
Nan Zhang, Congcong Zhang, and Yonggang Li

New Media-Based Internal Communication of Academic Libraries A Case Anlysis Based on HZAU Library 1343
Zengzeng Tang, Tianji Wu, and Cuixia Li

Recommend Items for User in Social Networking Services with CF 1347
Linting Guan and Hailing Lu

Content Extraction from Chinese Web Pages Based on Punctuations Distribution 1351
Qian Peng, Qinglin Wang, Yuan Li, Jixian Zhang, and Yuexing Hao

A Domain-Specific Chinese Term Extraction Method Based on Prefix and Suffix 1356
Dongmei Li, Qinglin Wang, Yuan Li, and Qian Peng

PatternTrack: A Visual Pattern Detection Technique for Multidimensional Data 1360
Quan Li, Li Chen, Hongsen Liao, and Junhai Yong

Design and Implementation of IDC Engine Room Intelligent Management and Control System Based on Data Mining 1366
Zhang Tie-lin and Jia Ke-bin

Research on SOA Architecture for Scattered Web Knowledge Discovery 1370
Wenhua Zeng, Jian Zhang, and Haifang Wei

Research on Methodology of Knowledge as a Service 1374
Peile Zhang and Min Yao

The Discrete-Time SIS Model in Small-World Networks 1378
Guangzheng Li, Dinghua Shi, and Zhongzhi Zhang

Research on Feature Extraction Technology of Competition Video Shot 1381
Qian Wang and Bin Liu

M-CVaR Portfolio Selection Program Under Nonlinear Transacton Costs and Minimum Trading Volumes 1385
Xu Yong Chun

Research on Key Technology for Game VIdeo Retrieval 1389
Bin Liu and Qian Wang

The Study on the Performance Evaluation of the Lean Supply Chain in Chain Retailers 1393
Nan Cheng and Hong Xue

Design on Algorithm of Automatic Test Papers Generation for Examination System of Electric Energy Measurement 1397
Chen Yuan-Bin and Dai Jie

An Efficient Merge Technology for Constant Degree P2P Systems 1401
Wang Xiao Hai, Dai Xiu Liang, and Li Bei

Attribute Based Access Control (ABAC)-Based Cross-Domain Access Control in Service-Oriented Architecture (SOA) 1405
Ni Dan, Shi Hua-Ji, Chen Yuan, and Guo Jia-Hu

An Architecture of Cyber Physical System Based on Service 1409
Chengyuan Yu, Song Jing, and Xuan Li

A Vehicle License Plate Detection Method Based on Clustering Analysis 1413
Hui Wang, Gang Liu, Hongchang Ke, and Liufu Song

Based on Data Mining Research of Enterprise Intelligence Asset Management System 1417
Lei Zhang, Junjie Liu, and Shengpeng Liu

Research on the Personal Recommendation Algorithm Based on Grey Relationship 1423
Li Xia, Li Shouwei, and Li Naijuan

Framework of Service-Oriented Manufacturing Based on Multi-relational Data Stream Mining 1427
Hong Deng, Ying-Long Wang, Jun Yang, and Liang-Qing Feng

The Use of Data Mining in Pharmic Quality Analysis of Traditional Chinese Medicines 1431
Xia Wu, Shun Long, and Wei-Heng Zhu

A Developed Association Rule Model Applied in Electric Energy Customer Service Analysis 1435
Haoxin Chen, Yuheng Chen, and Jian Yin

Noisy GA Resampling on Evolved Parameterized Policies for Stochastic Constraint Programming 1439
Jing Tian and Tomohiro Murata

Parameters Estimated Subsection Predicting Model for Electric Power Consumption in the Spring Festival 1443
Lianghui Chen, Jianhao Mai, and Jian Yin

GIS Based Study on Agricultural Natural Endowments at Prefecture City Level in China 1447
Xia Haibin and Wang Zheng

Extraction of Summer Maize Using MODIS EVI Time Series in Huang-Huai-Hai 1451
Jun Liu, Qingjiu Tian, Yan Huang, and Lingtong Du

Design and Implementation of the Major Scientific and Technological Achievements Decision Support System 1455
Ke Bi, Jinghua Wang, Xian Sun, Yingxin Xie, and Yuna Liu

Generalized Linguistic Ordered Weighted Logarithm Averaging Operators 1459
Huayou Chen, Ligang Zhou, Yingdong He, and Su Guo

Psychological Capital Moderate the Influence of Job Satisfaction on Performance 1463
Yanhong Zhou, Jinjin Gao, and Yiwen Chen

The Software Quality Evaluation Method Based on Software Testing 1467
Liu Wen-Hong and Wu Xin

A Service Ranking Method Based on Collaborative Filtering 1472
Xu Zhao, Yong Zhong Huang, and Liu Yang An

A Formal Model of Service Network and Its Description Using Pi-calculus 1476
Jing Hu and Zhi-Yong Feng

A Message Service System Based on WCF Duplex Communication 1480
Guo Yunhua and Yu Yonghua

The Case Study on Service Encapsulation for Web-Based Application System 1484
Jin Ding, Bin Wu, Tiantian Ding, and Quanyin Zhu

Information Service and Supervision for Ecotourism Based on WEBGIS 1488
Qiao Guo

Session VI: Algorithm

Stability Control of Inverted Pendulum Using Fuzzy Logic and Genetic Neural Networks 1495
Yun Zhang, Ming Shuang Bi, Xuemei Chen, and Wanqiang Qi

Research on Detecting and Validating Design Pattern Instances from Source Code 1499
Wenjin Li, Guangping Chen, and Julong Pan

Research of Data Integration Technology Based on the Internet of Things of the Intelligent Medical Terminal 1504
Zhou Xinmei, Xiang Zhongfan, and Yang Yongjin

An Implementation of Electronic Commerce Recommender System Based on Improved K-means Clustering Algorithm 1508
Lei Zhang, Bofeng Zhang, and Kebo Mei

"Impression": The Design and Implementation of Three-Dimensional Ink Animation 1512
San-ao Xia

Sliding Mode Control for Chaotic Permanent Magnet Synchronous Motor Drive System 1515
Miao Chen, Hai-Tao Kong, and Heng Liu

Application of Sliding Mode Control Based on Genetic Algorithm in Direction Control System of Submarine 1518
Yu Ming Ma and Fang Jun Dou

Face Super Resolution by Patch-Based Sparse Coding 1522
Zheng Hu, Wei Li, Qinggang Tang, and Yunyan Chen

Attribute Reduction for Abnormal Decision Table Based on Fractal Dimension 1526
Hong-Chan Li and Hao-Dong Zhu

Image Segmentation Using Thresholding and Artificial Fish-Swarm Algorithm 1529
Ye Zhiwei, Li Qinyun, Zeng Mengdi, and Liu Wei

Research on Microseismic Monitoring Techniques Based on Amplitude Stacking 1533
Lu Hao and Zeng Xiaoxian

The Application of GA-BP Algorithm in 3PML Parameter Estimation 1537
Wang Hua, Chen Jing, and Ma Cuiqin

Research on Intelligent Power Consumption Business Intelligence System Based on Cloud Computing 1541
Houlei Lv, Yingxin Xie, Fengyu Wang, and Yanliu Cheng

The Design and Implementation of Image Information Retrieval 1547
Hongbo Xu, Nianmin Yao, Wen Hu, Haiwei Pan, and Xiang Gao

PI-Frames for Flickering Reduction in H.264/AVC Video Coding 1551
Shujuan Qiao, Yongfei Zhang, and Haibo Wang

Improvement of Real-Time Image Splicing Method Basic on Gray Level 1555
Yue Qin Cao

Digital Filter Algorithm Based on Whistle Sound Suppression System Design 1559
Lei Liu, Honggang Li, and Xiaochen Hu

Research on XML Technology in Data Integration of Maritime 1563
Taoying Li, Yan Chen, and Yingying Yu

The Improved BP Algorithm Based on MapReduce and Genetic Algorithm 1567
Zhu Chenje and Rao Ruonan

Establishing of Three Dimensional Landscape Model According to the Digital Measurement System 1571
Qun Zhao and Xiao Yan-Ma

Design and Implementation of Jewelry Selling System Based on .NET MVC Framework 1575
Zhi Li, Kebin Jia, Zhenzhen Li, and Meng Yao

Error Estimation of Iterative Localization Based on Non-linear Least Square Residuals 1579
XiaoPing Wu and ShiLi Tan

A Network Topology Clustering Algorithm for Service Identification 1583
Qingbo Guan, Shuxing Feng, and Yanhua Ma

High Fault Tolerant Image Processing System Based on Stochastic Computing 1587
Chengguang Ma, Shunan Zhong, and Hua Dang

A New Cutting Plane Algorithm for Integer Linear Programming 1591
Ke-Dong Chen, Zhong Wu, and Zhi-Jie Xia

Design of Extractor Hood Based on 51Microprocessor 1595
Xuefeng Li

Image Reconstruction Based on Variational Method 1599
Hui Xiong and Sijie Cai

An Implementation about GIS Data Interoperability and Service Interoperability 1603
Yang Haixia

Generalized Analysis in Sequence Kernel SVM 1607
Li Jie and Liu He-Ping

The Algorithms of Intelligent TV Programs Recommendation Based on Data Mining 1611
Zhenzhen Song, Zhiqiang Wei, and Dongning Jia

Malicious Code Detection Based on Layered Semantic Cognition 1615
Changgeng Shao and Dan Liu

Comparison and Prospect Study on Multiple Face Detection and Recognition Methods 1619
Huang Chunfang and Wei Ningfang

The Study of Enterprise Working Time Optimization Simulation System Considering the Peak-Valley Power Price 1623
Aimei Yan, Jinsong Wang, Liang Wu, and Yingxin Xie

Graphical Representation Technology for Knowledge Acquisition of Fault Diagnosis System 1627
Lei Dong, Qingdong Li, Xingyue Shao, and Chen Bai

The Application of Data Mining in Statistics of R&D 1631
Liu Shan and Zhou Xuefeng

A Novel P2P Network Model for Cloud Computing Based on Game Theory 1635
Shou Qing Qi, Lei Yang, Hai Mei Xu, and Long Chen Qi

Research on Distance Education System Based on Cloud Computing 1639
Ming-Ming Fei, Le-Hua Zhao, Cong Wang, and Wei-Hong Wang

Normalization of Fingerprint Image Using the Local Feature 1643
Jianchun He and Jinjun Bao

Novel Relevance Feedback Approach to Content-Based Image Retrieval 1647
Wen Wei and Wen Li

Improvement of RGB-Based Image Coding Method 1651
Yue Qin Cao

The Applications of Improved Retinex Algorithm for X-Ray Medical Image Enhancement 1655
Sun Weizhen, Li Fei, and Zhang Qinzhen

Algorithm Research on Online Game of Chinese Chess 1659
Yameng Ban and Yuepeng Zhao

The Design and Analysis of High Performance Online Game Server Concurrent Architecture 1662
Xuefang Wu and Ru Gao

Takagi-Sugeno Intuitionsitic Fuzzy Inference Systems Based on Game Theory 1666
Li Songwei, Zhou Xiaoguang, and Zhao Renhou

A Composite Mode Filtering Model Based-on Content 1670
Wenyan Nie and Zhonggen Wang

Energetic Formula Energy Prediction Method Research Based on GEP 1674
Wang Dong-Lei, Lu Zhong-Hua, Zhang Liu-C, and Wang Yu-Feng

Application of Elliptic Curve Digital Signature in the Performation Evaluation 1678
Changqun Xia and Shiping Yang

Image Preprocessing Algorithm Analysis Based on Robertsoperator and Connected Region 1682
Long Chen, Dan Liu, Xiuhan Xi, and Hui Xie

All-in-One Search Engine Algorithms of Smart-Environments-Based on Android 1687
Qing Zhang, Zhiqiang Wei, Dongning Jia, and Xiang Xiao

Land-Cover Hierarchical Classification Method Study of TM Image in Loess Hilly Ravine Area 1691
Xiao-Man Li and Gang Wang

Application Research of Internet of Things in Ship Lockage Management System 1695
Lei Zhou, Hu Liu, and Quanyin Zhu

An Approximate Nearest Neighbor Query Algorithm Based on B^Z-Tree 1699
Hongbo Xu, Nianmin Yao, Qilong Han, Shaobin Cai, and Dongpu Sun

Grid Task Scheduling Strategy Based on Differential Evolution-Shuffled Frog Leaping Algorithm 1702
Deyu Tang, Jin Yang, and Xianfa Cai

An Extension of Dynamic Programming Algorithm in Robotic Path Planning 1709
Shanshan Ji and Lianhe Yang

Research and Implementation of the High-Availability Spatial Database Based on Oracle 1713
Xiaochun Wu, Kai Wang, Zixuan Su, and Yanjun Liu

Study on Computer Forensics in Cloud Computing 1717
Lianfu Yin

Bilingual Corpus Research on Chinese English Machine Translation in Computer Centres of Chinese Universities 1720
Chan-Juan Liu and Su Han

An Offline Analysis Framework of Cluster System Logs 1724
Bowen Yang and Jungang Xu

The Improvement of ARQ Acknowledge Algorithm in LTE System 1729
Fatang Chen and Qin Tuo

An Improved Position Prediction Algorithm Based on Active LeZi in Smart Home 1733
Hongqing Fang and Jinjin Ruan

Feature Extraction of Fingerprint Image Based on Minutiae Feature Points 1737
Yin Li-Qiang and Gao Ling

Research of Rolling Monitoring on Road Safety Line 1741
Wenhao Wang, Chengfu Sun, and Hong Zhou

The Video Object Extraction Method Based on the Intersection of Three Times Frame Change Edge 1745
Pang Xi-yu, Wang Cheng, Zhang Guang Yuan, and Xie Qing

The Application of the SIMD Optimization in Ocean General Circulation Model POP 1749
Rui Zhu, Wei Zhao, and Dexun Chen

Design of Pest Outline Extraction System over Pyramid Algorithm 1754
Zou Xiuguo and Li Lin

The Study for GIS-based Distribution Network Monitoring and Control Area Fault Location Methods 1758
Wei Li, Hong Chen, and Bin Xiang

Research on K-Means Algorithm Based on Cloud Computing 1762
Shuping Liu and Yanliu Cheng

Statistics Based Model Evaluation and Parameter Selection for Particle Swarm Optimization Algorithm 1766
Bixin Hu

Session VII: Data Mining and Computational Intelligence

ONTRUSE: Searching Ontological Structures 1773
Xiang Zhang and Cuifang Zhao

Self/Non-self Discrimination Based on Fractional Distance 1777
Shubin Wang, Tao Yang, and Kunpeng Wang

Interactive Image Segmentation Based on Region Merging Using Hierarchical Match Mechanism 1781
Chongbo Zhou and Chuancai Liu

The Super Default Rules in Ontologies 1785
Sun Yu, Li Zhiping, and Xu Tianwei

Design of Mobile Agent Communication Mechanism Based on SPF 1789
Jinghua Zhang, Zhimin Yang, and Ran Wei

Fault Diagnosis of Flight Control System Based on Correction High Dimensional Cloud Model 1793
Sun Yong, Li Zeng-Lu, Meng Hong, Li Wen-Wei, Yi Zhong-Kai, Li Guang-Yun, and Xue Ji-Rong

Improved PSO Algorithm-Based Online Optimization Design for ADRC Controller 1798
Zhou Guo-Dong and Zhang Dun-Li

Identification of Image Emotional Semantic Based on Feature Fusion 1802
Zengrong Liu and Xueli Yu

Answer Set Programming with Uncertain Facts 1807
Lei Sha and Zhizheng Zhang

A Data Placement Method Based on Bayesian Network for Data-Intensive Scientific Workflows 1811
Feng Ma, Ying Yang, and Tianwen Li

The Research of Video Object Segmentation Based on Shape Confidence 1815
Shaobin Li and Xiaomeng Wang

Fast Pedestrian Detection Based on HOG-PCA and Gentle AdaBoost 1819
Jiafu Jiang and Hui Xiong

ESParser: An Epistemic Specification Grounder 1823
Rongcun Cui, Zhizheng Zhang, and Kaikai Zhao

An Improved Differential Evolution Based on Gaussian Disturbance for Multi-objective Optimization 1828
Chengfu Sun and Wenhao Wang

Gradual Drifting of the User's Preference in Interactive Evolutionary Computation and its Application 1832
Hao Guo-Sheng, Liu Lili, and Kong Li-Fang

A Font Style Learning and Transferring Method Based on Strokes and Structure of Chinese Characters 1836
Xiangyu Qiu, Wenhua Jia, and Hongmei Li

Image Denoising Using a Modified LNMF Algorithm 1840
Li Shang, Yan Zhou, Jie Chen, and Zhanli Sun

Compare with Three Models for Price Forecasting on Steel Market 1844
Yonghua Yin, Bin Wu, and Quanyin Zhu

Prediction of Protein Subcellular Localization Using EDA Based Ensemble Classifiers 1848
Ying Li

A New Definition of Intuitionistic Fuzzy Rough Set and Its Similarity Measure 1852
Hua Yang, Weixia Li, Chengyi Zhang, and Juan Li

An Application of Simulated Annealing Algorithm for Soil Sampling Designing 1856
Zhang Shujie and Liu Wenliang

Synthesis of Chinese Sign Language Prosody Based on Head 1860
Xiangwu Zhang, Dehui Kong, Lichun Wang, Jinghua Li, Yanfeng Sun, and Qingming Huang

Research on a Secure Encryption Module for SoC 1865
Zichen Wu, Pingping Xu, and Hao Liu

Study on Detection Method of Small Object on Sea Based on Kernel-MRF Foreground Segmentation Model 1869
Jiang Yong-Xin, Yuan Qun-Zhe, Shao Cheng-Yong, Yang Chang-Qin, and Ye Xi-Yong

Fast Image Deblurring Algorithm Based on Normalized Sparsity Measure and Space-Frenquency Transformation 1873
Donghuan Lu, Shiyin Qin, and Dong Yang

A Research Based on Fisheye Lens of a Drilling Wall Imaging System 1877
Xu Di, Yang Zhang, Jin-Hua Yang, Dan Liu, and Li Li

Noisy Radial Deblurring Using Natural Image Prior 1880
Shaochun Li, Yuli Cui, and Yongling Chu

A Modified Richardson-Lucy Method for Space-Variant Motion Deblurring 1884
Yongling Chu, Shaochun Li, and Mei Wang

Computer Vision Technology for Seafood Quality Evaluation 1888
Xueheng Tao, Hongjie Li, Jinshi Lu, and Xuejun Wang

Integrated Heat Sink and Enhanced PC Cooling 1892
Patel Sanket Mukesh, Kathrotia Sugney Sureshbhai, and Patel Suhradam Mukeshbhai

Fusion Tracking Algorithm of Mean-shift and Particle Filter Based on EMD 1896
Xiaohao Li, Fuchun Sun, and Yuan Yuan Liu

The Security Research of Massively Multiplayer Online Role Playing Games 1900
Yameng Ban and Yuepeng Zhao

Comparison of Two-Way Two-Dimensional Finite Automata and Three-Way Two-Dimensional Finite Automata 1904
Jing Dong and Wenbing Jin

A Limbs Combination Algorithm in Character Modeling 1907
Dan Li, Yingsong Hu, Junwen Ji, Yu Liu, and Zhiwen Wan

Research on the Three Dimensional Reconstruction of Knee from CT Images 1911
Jinfang Li, Hanwu He, Hao Huang, and Jun Lei

Design Example: Building Block-Based System for Automated Design of Multistage Analogue Circuits 1915
Phillip Cheong Ngai

Research on the Key Techniques of Three Dimensional Reconstruction for Construction Machinery 1919
Jiang Xiaojing and Yang Xiaoqiang

Sequence Iterative 3D Registration of Multi-view Point Cloud for Cultural Site Scenes 1923
Jun Liu, Guohua Geng, and Mingquan Zhou

Research on TTC200 Controller Hardware-in-the-Loop Simulation Base on dSPACE 1928
Tian Liyuan, Wang Qingnian, and Wang Pengyu

Research of 3-Dimensional Graphic Display Algorithm Based on Silverlight 1932
Tongde Tan, Guotao Jin, Chaofeng Zhang, and Li Zhang

Research on the Method for Computer-Aided Pattern Design of Uygur's Headwear 1935
Shuxian Liu and Xiaohua Li

Files' Conversion from CAD to GIS Using Spatial Data Conversion Tools Provided by FME 1939
Liu Zhen, Changfeng Jing, and Xiuzhong Chen

Research and Design of Monitoring System for Belt Conveyor 1943
Qing Lu, Xiaohui Wang, and Liyun Zhuang

Research on Knowledge Management for Group Enterprise in Cloud Manufacturing 1946
Yiwen Zhang and Ying Jin

Cluster-Based Energy-Efficient Structural Health Monitoring Using Wireless Sensor Networks 1951
Qionglei Hu, Xuefeng Liu, Qingbo Wu, Jiannong Cao, Yang Liu, and Yusong Tan

Fusion of BVM and ELM for Anomaly Detection in Computer Networks 1957
Changning Cai, Huaxian Pan, and Guojian Cheng

The Design of Control System for Smart Meter 1961
Jinyong Wang and Chao Qi

Simulation of Geometric Approach to the Study of Singularly Perturbed Differential Equations Using Matlab 1965
R. Vrabel, I. Mankova, and V. Liska

The Synchronization of Complex Networks via Impulsive Control 1969
Yang Li-Xin and Liu Xiao-Jun

Synchronizing Uncertain Chaotic Systems with Neural Network Compensation 1972
Chun-Xiang Sun, Hai-Tao Kong, and Heng Liu

Study of Degradation in Switching Mode Power Supply Based on the Theory of PoF 1976
Dailin Li and Xiang Li

The Fuel Oil Viscosity Simulate Control System Based Micro-controller 1981
Yuan Renmin and Liu Xinjian

Research on Preprocessing Technology of Earth Observation Satellites Scheduling 1985
Han Qiong, Zhang Wenyi, and Gao JiaJia

The Application of Data Transmission in the CNC Machine Tools' Fault Warning and Diagnostic System Development 1989
Guo Zhiping, Song Zhiyong, Yan Jiming, and Shi Rongbo

Perception of Manufacturing Resources in Cloud-Manufacturing System 1993
Yan Jiming, Guo Zhiping, and Shi Rongbo

Resarch of Mechanical Components' Performance Degradation Based on Dynamic Fuzzy Neural Network 1997
Shi Rongbo, Guo Zhiping, Song Zhiyong, and Yan Jiming

Investigating Randomness of the LZSS Compression Algorithm 2001
Weiling Chang, Xiaochun Yun, Nanning Li, and Xiuguo Bao

Association Rules Mining for Academic Cooperation Based on Time Extension and Duration Accumulation 2007
Fang Huang, Zhike Zou, Xinmin Liu, and Jiefeng He

Monitoring of the Ultrasonic Wire Bonding Quality Based on System Impedance 2013
Wuwei Feng, Yulian Zhang, and Qingfeng Meng

A Bayesian Inference Method under Data-Intensive Computing 2017
Feng Ma, Weiyi Liu, and Tianwen Li

Simultaneous Product Attribute Name and Value Extraction with Adaptively Learnt Templates 2021
Wei Tang, Yu Hong, Yan-Hui Feng, Jian-Min Yao, and Qiao-Ming Zhu

A Partition-Based Approach to Mining Link Patterns 2026
Xiang Zhang, Cuifang Zhao, Sanfeng Zhang, and Peng Wang

Research of Correction Method in the Feature Space on Text Clustering 2030
Xueying Jiang, Yingjin Shi, and Shiyao Li

Research on Multi-step Prediction of the Short-Term Information by Empirical Model Decomposition to Abnormal State Road Traffic Information 2034
Lijie Liang, Dexin Yu, and Xu Chang

Item-Based Collaborative Filtering Recommendation Algorithm Combining Item Category with Interestingness Measure 2038
Suyun Wei, Ning Ye, Shuo Zhang, Xia Huang, and Jian Zhu

Research on the Amount of Customers in Telecom Package Preview Based on Data Mining 2042
Jia Danhua, Zhao Xiaogeng, and Wang Runrun

Data Stream Closed Frequent Itemsets Mining in Blend Window 2047
Wu Hao, Wang Huiying, Li Huaiying, and Jiang Miao

A Probability Similarity Scoring Schema Incorporating Positional Trends in Information Content for DNA Motifs Comparison 2052
Bin Tian and Xiu-Jun Gong

A Classification Algorithm Based on Association Rule Mining 2056
Yang Junrui, Xu Lisha, and He Hongde

Research on the Architecture of the Military Training Metadata Modeling 2060
Chen Gang, Su Chang, Gao Xiang, and Wang Bin

A Data Warehouse Design Method 2063
Wang Zhijuan, Wei Hongchang, and Wu Xuefang

Using a Nearest Neighbor Rule for the Clustering Method Based on One-Class Support Vector Machines 2067
Lei Gu

The Design and Implementation of University Information System Using Data Organization and Visualization Technologies 2071
Xiaoguo Wang and Xinying Ma

Implementation Method of the Semantic Data to be Stored into the Relational Database 2075
Yonggang Shan, Jiangfeng Yu, and Dongyi Chen

Design of Meteorological Data Interoperability Conversion Model 2079
Lu Kong, Yingzi Song, Wei Huang, Jian Zhu, and Zhijian Wu

The Integration Processes for the Effective Dataflow Control and Monitoring 2083
Maros Zobok and Pavol Tanuska

Measurement of the Energy Real-Time Data Warehouse System Design and Implementation 2087
Xue Hong-ye, Yang Qi, and Li Ai-guo

An Objective Function for Dividing Class Family in NoSQL Database 2091
Zhikun Chen, Shuqiang Yang, Hui Zhao, and Hong Yin

Anonymous Watermarking Protocol for Vector Spatial Data 2095
Yuwei Peng, Chuanjian Wang, Ying Fang, and Weibo Li

The Design and Implication of Multilevel FPGA Upgrade Online 2099
Xiaohui Wang, Liyun Zhuang, Qing Lu, and Yongfeng Tang

Development of Ultrasonic Equipment Using Microcontrollers 2103
Jin Tan

System Design and Simulation of LED Dot-Matrix Screen Displaying Chinese Characters Based on Proteus 2106
Jingrui Liu and Zhaofei Meng

Design of Embedded OS Micro-kernel Experiment Series on ARM 2109
Bo Qu

Design of Steering-by-Wire System Based on OSEKturbo Real-Time Operation System 2114
Xin Chen and Guixiang Zhang

Fault Testing Device of Fire Control System Based on Virtual Instrumentation Technology 2118
Lu Guoliang, Yang Xiaoqiang, Li Hongwei, and Huang Yu

Image Collection and Display System Based on BF533 2122
Song Changlong, Li Qingliang, Zhao Hongwei, and Du Hongyun

A SOA-based Expert System for Wireless Networks Problem Diagnosis 2127
Chung C. Chang and Shih-Chieh Hsieh

Diagnosis Expert System for Oesophagus Cancer in Early Stage 2131
Bo Ji, Rui Feng Song, Feng Xu, and Yang Dong Ye

Performance Analysis and Comparison of Three Mrbayes Computational Biology Code on Tianhe-1A Supercomputer 2135
Jun Chai, Huayou Su, and Chunyuan Zhang

An Efficient Method for Incremental Learning of GMM Using CUDA 2141
Chunlei Chen, Ning Zhang, Shuang Shi, and Dejun Mu

Research on the Connection between FLAMES and RTI 2145
Xu Xie, Xiaocheng Liu, and Kedi Huang

Efficient Continuously Top-k Keyword Query for Moving Objects 2149
Xudong Du

Deep Web Data Integration Oriented Result Output Pattern Building Approach 2153
Ma Anxiang, Zhang Xiaohong, Zhang Bin, Gao Kening, and Sun Daming

Applications of Excel VBA in Data Processing of Magnetic Survey 2157
Du Ruiqing, Sun Sanjian, Ouyang Longbin, and Du Ruiqing

Model Checking for the Defense against Cross-Site Scripting Attacks 2161
Yu Sun and Dake He

Research and Implementation of a Research Projects Management System Based on SOA 2165
Gang Zhang, Tong Yue, and Mengwen Liu

Intelligent Urban Traffic Management System Based on Cloud Computing and Internet of Things 2169
Xi Yu, Fuquan Sun, and Xu Cheng

A Bootstrapping Method for Extracting Sentiment Words Using Degree Adverb Patterns 2173
Changhou Wang and Fei Wang

The Electric Field Controlling Method Based on GM (1,1) RBF Neural Network 2177
Tan Hao, Xiong Lu, and Gong Shenguang

Delay-Dependent Stability Analysis for Neural Networks with Two Additive Time-Varying Delay Components 2181
Peiming Wang, Shouming Zhong, and Huan Lei

Target Face Detection Using Pulse Coupled Neural Network and Skin Color Model 2185
Huajun Fan, Dongming Zhou, Rencan Nie, and Dongfeng Zhao

Exponential Stability Analysis for Switched Systems with Distributed Time-Varying Delays 2189
Huan Lei, Shouming Zhong, and Peiming Wang

Improved RBF Neural Network Ensemble Prediction Model for PMI 2194
Leilei Pan and Xudong Li

Priority Weighted Fitness Model in Complex Networks 2197
Xinyi Chen

Application of BP Neural Network Forecast Model Based on Principal Component Analysis in Railways Freight Forecas 2201
Zhou Jianguo and Qin Gang

The Research on the Application of Fuzzy Neural Network in Internet Addiction Decision 2205
Qin Xiaoqian

Educational Devotion to Economy Emulation Model Based on Neural Network 2209
Kong Lifang, Wang Zhonghua, and Zhang Yan

Application of Parallel Computing for Space Debris Close Approach Analysis 2213
Ming Shen, Xiaozhong Guo, Pengqi Gao, Datao Yang, You Zhao, Zhongwei Fan, Jin Yu, and Yunfeng Ma

A Cloud Computing Resource Pricing Strategy Research-Based on Resource Swarm Algorithm 2217
Hao Li, Yu Pu, and Joan Lu

Memory-Aware Loop Paralleling for Coarse-Grained Reconfigurable Architectures 2223
Ziyu Yang, Peng Zhao, Dawei Wang, and Sikun Li

A Paradigm of Extensions of Parallel Execution Model 2227
Zhao Jun, Zhang Li-Lun, and Song Jun-Qiang

Asymmetric Virtual Machine Scheduling Model Based on Workload Classification 2231
Yanyan Hu, Xiang Long, and Chengjian Wen

Parallel Apriori Algorithm Based on the Thread Pool 2235
Yue Shen, Zhongqian Fu, Lei Zhang, and Jianyu Wang

Improving the Efficiency of Storing for Small Files in HDFS 2239
Yang Zhang and Dan Liu

Replica Deletion Strategy Based on Gray Prediction Theory and Cost in P2P Network 2243
Liangmin Guo, Shoubao Yang, and Shuling Wang

RReplay: A Record and Replay System Based on Restricted Multi-threading 2247
Xu Zhou, Kai Lu, Xicheng Lu, Chen Chen, and Xu Li

Unifications in Snakes and Geometric Active Contours 2251
Hongyu Lu, Yutian Wang, and Shanglian Bao

Identification and Recovery of the Blurred QR Code Image 2257
Gang Xu, Renzhe Li, Lu Yang, and Xiaochen Liu

Research of Road Extraction Based on Hough Transformation and Morphology 2261
Gang Xu, Lu Yang, Xiaochen Liu, and Renzhe Li

Part-Based Templet Matching in the Detection of Fatigue Driving 2265
Gang Xu, Xiaochen Liu, Renzhe Li, and Lu Yang

Lung Nodule Classification Using Supervised Manifold Learning Based on All-Class 2269
Ying Li and Qian Yu

Edge Detection of High Resolution Image Introducing Spatial Relationship 2273
Jin Huazhong, Xie Haitao, Wang Ji, and Zhou Wanping

Eye Tracking Based on the Template Matching and the Pyramidal Lucas-Kanade Algorithm 2277
Zheng Zhao, Shengbo Fu, and Yuchuan Wang

Skin Recognition Based on Color Image Enhance Algorithm 2281
Tang Hao-Kui and Feng Zhi-Quan

Image Segmentation Based on Ball Vector Machine 2285
Wenhai Wu, Huaxian Pan, Yao An, and Guojian Cheng

Image Subcategory Classification Based on Dempster-Shafer Evidence Theory 2289
Haidi Gao, Xiangjun Shen, Zhongqiu Jiang, Hebiao Yang, and Li Yan

An Abandoned Object Detection System Based on Dual Background and Motion Analysis 2293
Liu Xiya, Wang Jingling, and Zhang Qin

Dynamic Texture Analysis Using Eigenvectors of Gradient Skewness Tensors 2297
Fan Zhang, Bingyin Zhou, and Lizhong Peng

Head Movement Recognition Based on Lucas-Kanade Algorithm 2303
Zheng Zhao, Yuchuan Wang, and Shengbo Fu

Comparison and Study of Classic Feature Point Detection Algorithm 2307
Daguang Jiang and Junkai Yi

Accurate Object Tracking Based on Homography Matrix 2310
Miaohui Zhang, Yandong Hou, and Zhentao Hu

An Improved Region Growing Method for Segmentation 2313
Xingyi Li and Lianqing Lu

Research and Implement of Three-Dimensional Reconstruction Technology for Medical Images Based on IDL 2317
Lu Xiaoqi, Liu Xin, and Jia Dongzheng

Control Architecture of SY-II Ship Inspection Remote Operated Vehicle 2322
Hai Huang, Lei Wan, Yong-jie Pang, and Zai-bai Qin

Flip Control for an Indoor Micro Aerial Vehicle 2326
Hongtao Zhang, Longqiu Li, Lin Wang, and Guangyu Zhang

An Eye Movement Study on the Different Segmentations' Effects on Han and Tibetan College Students' Reading Habit 2330
Hongzhi Yu, Guiping Chen, JianBin Wang, and Ning Ma

Characters of Maximal Non-Hamilton Graph 2334
Aimin Hou, Chao Qu, and Zhifeng Hao

Research on Model Checking Technology of UML 2337
Lixia Ji, Jianhong Ma, and Zhuowei Shan

Building a Virtual Machine-Based Network Storage System for Transparent Computing 2341
Yuan Gao, Yaoxue Zhang, and Yuezhi Zhou

An Energy-Efficient Processor Core for Massively Parallel Computing 2345
Qianming Yang, Nan Wu, Maolin Guan, Chunyuan Zhang, and Jun Cai

Author Index