

Table of Contents

Preface	v
Organizing Committees	vii
Session 1	
Accelerated Wide Baseline Matching Using OpenCL <i>Jian Cao, Jie Liang, Xiao-fang Xie and Xun-qiang Hu</i>	1
Application of Forward-looking Scanning Sonar on Simultaneous Localization and Mapping for An Autonomous Underwater Vehicle <i>Shu Tian, Bo He, Shujuan Chen and Guijie Liu</i>	8
A Line Feature Extraction Method Based on Forward-looking Scanning Sonar for Artificial Underwater Environment <i>Pei Song, Bo He, Tao Zhang, Shujuan Chen and Guijie Liu</i>	15
Study on Simulation of the Underground Shopping Mall Fire Based on Virtual Reality <i>Xin Du</i>	21
Path Planning and Decision-making Control for AUV with Complex Environment <i>Wei Kan and Bo He</i>	25
Variable Structure Control of Pendulum-driven Spherical Mobile Robots <i>Tao Yu, Hanxu Sun and Qingxuan Jia</i>	32
Study on the Relationship Between Fair Value Accounting and Different Information Users Based on the Contradiction Between Theoretical and Empirical Fields. <i>Xin Liu, Zhaojiang Chen and Shili Liu</i>	41
An Effective Nonparametric Clustering Algorithm Based on Statistical Features of Neighborhood <i>Xi Peng, Zhang Yi and Dongchen Wei</i>	46
Semantic Integration for Multi-Source Geo-Data Based on Ontology——A Case of Integration of Chart and Map <i>Min Wen, Xin-ming Tang, Shao-yu Shi, Jian-qiang Wen and Hao-wen Yan</i>	54
Feature Selection Method Based on Adaptive Relief Algorithm <i>Wenbing Fan, Quanquan Wang and Hui Zhu</i>	60
Session 2	
The Optimization of Gray Model Applied to Super Short-term Load Forecasting <i>Jiaxing Zhai, Shaotao Dai and Liye Xiao</i>	66
Investor: A Light-Weight Speculation Scheme for the Open Internet <i>Huiba Li, Shengyun Liu, Yuxing Peng and Xicheng Lu</i>	74
Decision-making Method for Control of A-SMGCS Taxiway Centre Line Lights <i>Xinping Zhu, Xinmin Tang and Songchen Han</i>	82
FpSp: A New Method for Web Extraction <i>Liping Xu and Xiaohui Su</i>	89
Research of Mould Virtual Assembly System Based on EON <i>Yan Chen, Dongfeng Xu, Weiliang Cai, Mengsi Zhu and Heping Xiang</i>	96
Algorithm of Image Encryption Based on Permutation Information Entropy <i>Guang-hui Cao, Kai Hu, He Yang and E Xu</i>	102
An Approach to Formalize UML Sequence Diagrams in CSP <i>Dan Li and Danning Li</i>	109
Quadrotor Trajectory Tracking Control: A PD Control Algorithm <i>Zongyu Zuo</i>	116

Web Databases Sampling Approach Based on Valid Probability of Query Attributes <i>Jian-Wei Tian and Yang Xu</i>	123
Dual Cubature Kalman Filter for Speech Enhancement <i>Xianfeng Tang, Binglei Guan and Quanbo Ge</i>	129
Session 3	
The Method to Determine Spherical Harmonic Model of Asteroid Based on Polyhedron <i>Zhenjiang Zhang, Meng Yu, Hutao Cui and Pingyuan Cui</i>	135
Analysis and Research on Distance Learning in Second Life <i>Yangyang Sun</i>	143
Maximum Likelihood Estimation of K-distribution Parameters Using Number Theoretic Methods <i>Da-Peng Li, Ying-qin Sun and Di Yao</i>	148
Research on the Different Protection and Restoration Mechanism of ASON <i>Qi Zhang and Lin Xu</i>	154
Research and Development of Graphical Transient Calculation Software for Gas Insulated Substation <i>Zhongyuan Zhang, Wenbo Li, Lei Yang and Jingsheng Zhao</i>	159
Real-Time Stereo Vision Based Fingertip Detection and Tracking <i>Xia Yuan and Qunsheng Peng</i>	165
A New Solar Tracking System of HCPV Based on Zigbee <i>Hu Liu, Shan Zhang, Zhen-biao Wang and Feng-ju Gao</i>	172
Chinese Intonation Classification Using Support Vector Machines <i>Jingyang Xu, Dengfeng Ke and Lei Jia</i>	178
Architecture Design of A Lightweight Extensible GUI Framework for Games <i>Zhixing Shen and Jinyuan Jia</i>	185
Network Security and Firewall Technology <i>Lily Dong and Yuanzhen Peng</i>	193
Session 4	
A Method of Data Preprocessing for Network Security Situational Awareness Based on Conditional Random Fields <i>Aiping Lu and Jianping Li</i>	198
Design and Implementation of A Parallel Thiessen Polygon Generator <i>Yongyuan Shen and Buyang Cao</i>	204
An Improved MMSE Turbo Equalization with Matched Filter Based on Hybrid Soft Feedback Interference Concelation <i>Yuxin Cheng, Lei Zhang and Haige Xiang</i>	209
On the Security of an Identity Based Broadcast Encryption Scheme <i>Xi Zhang and Ling Yang</i>	214
The Implement of Common Beam Forming Using GPU <i>Jing-hong Jiang, Qi-xiang Han, Hui-zhi Cai and Wei-min Hou</i>	219
Numerical Simulation of Production Performance of Fractured Horizontal Wells Considered Conductivity Variation <i>Rui Shen and Shusheng Gao</i>	224
Estimation of Temperature Rise in Stator Winding and Rotor Magnet of PMSM Based on EKF <i>Xiaoliang Jiang, Zhongying Zhang, Pindong Sun and Z.Q. Zhu</i>	230
Multi-sensor Data Acquisition of Machine Vision in Agricultural Application <i>Jian Wang, Shuoguo Li and Jianbing Liu</i>	237

The Design and Implementation of the Wireless Remote Control Car <i>Jinbo Dai, Shaokun Wang, Hongwei Zhao and Xu Wang</i>	244
Simulation of Sea Clutter Characters in the Different Duct Environment <i>Ya-ming Zhao and Yong-gang Zhang</i>	252
Session 5	
Dependence of IGBT Junction-Case Steady State Thermal Resistance on Heating Current <i>Ming Chen, Yong Tang and Bo Wang</i>	259
A Method for the Calibration of Vehicle-borne Laser Scanning and the Accuracy Analysis <i>Zhihong Xue, Guangyun Li, Li Wang, Fan Yang and Xiaohui Yang</i>	266
Analysis of Consumer Needs on 3G Services Based on Kano Model <i>Lu Wang, Jie Han, Wei Sun and Sheng Pan</i>	272
Application of MapGIS COM Technique in Mineral Resource Evaluation <i>Haijun Liu and Yongping Yi</i>	277
Application of Contour Map Creating Technique in Magnetic Exploration <i>Haijun Liu and Yongping Yi</i>	283
Artificial Bee Colony Algorithm Based on Von Neumann Topology Structure <i>Wenping Zou, Yunlong Zhu, Hanning Chen and Hai Shen</i>	288
An FPGA Implementation of Multi-Class Support Vector Machine Classifier Based on Posterior Probability <i>Zhiliang Nie, Xingming Zhang and Zhenxi Yang</i>	296
A Password-based Encryption Scheme with Symmetric Key Cryptography <i>Bingjie Huang and Tianjie Cao</i>	302
Design of Monitoring and Control System of Train Air Conditions <i>Jianjun Xu and Yupeng Tang</i>	308
Distributed Interactive Simulation for Iridium Communication System Based on HLA and OPNET <i>Yiqun Yang and Zong Peng</i>	312
Session 6	
The Research on Intelligent Detecting of Greenhouse Environment for Cucumber Growth <i>Ming Chen, Tao Chi, Hanfei Zhang and Guofu Feng</i>	317
On Optimization Principles of Power Systems with Distributed Generation <i>Caihong Chen and Yongqiang Zhu</i>	322
Performance Analysis and Modification of A Decision Feedback DSTBC System <i>Yishan He and Yufan Cheng</i>	328
The Structural Improvement Design for Gear Pump Based on Triz <i>Qingchun Zheng and Zhiduo Tang</i>	334
Research on Vehicle Stability Control Algorithm for Direct Yaw Moment Control <i>Hongyu Zheng and Changfu Zong</i>	340
Novel Thermal Analysis Platform for IPEM <i>Weifeng Zhang, Dexin Liu, Ruichun Wang and Xinzhong Wang</i>	347
Study on Steering Ability of Articulated Vehicles Under Complex Road Conditions <i>Jianjun Dong, Boqiang Shi, Wenming Zhang and Li Zhao</i>	351
Study Of Bearing Manufacturing Monitoring System Based On Double-Layer Field Bus <i>Jian Zhou and Zhaowei Wang</i>	356
Automatic Classification of Chestnuts Based on Decision Fusion <i>Yanjun Jiang</i>	361
A Security Model CCSM in An Environment of Cloud Computing	367

Session 7

Application of a Disk Migration Module in Virtual Machine Live Migration <i>Wei Song and Bao Gao</i>	375
The Automatic Control System of Air Compressor for Saving Energy <i>Jianjun Xu and Yupeng Tang</i>	382
Behavioral Modeling the Power Amplifier with Memory Effect Using the NARMA model <i>Jiajia Song, Yuelin Ma and Lili Guo</i>	386
An Improved Adaptive Median Filter For Image Denoising <i>Chun-mei Wang and Tian-yi Li</i>	393
Study on Position Determination and Monitoring System for Pipeline Security Based on Stress Wave Detection Technique <i>Jie Zhang, Ruixue Cui and Yingchun Li</i>	398
Wireless Communication of Construction Machinery Signal Based on the Bluetooth Technique <i>Da-rong Zhu, Wei-guo Zhu, Ke-ren Zhang, Ya Wang and Ping Wang</i>	403
A New Method for DOA Estimation Based on RBF Neural Network <i>Jun-wei Wu, Min Zhang, Zi-fa Zhong and Xin-kun Xu</i>	408
OiL Prices, Economic Growth ,Price Level and Stock Price Index in A Structural Cointegrated VAR Model in China <i>Dong Sun</i>	414
Cluster Analysis and Research of the Resource in KAD <i>Chunhui Wang, Xingshu Chen and Qi Wu</i>	419
Workflow Model Analysis Based on Colored Petri Nets <i>Meining Xu and Qinglin Xu</i>	426
Session 8	
The Ethernet Network Manipulative System Based on RTL8019AS <i>Dong-mei Ma and Zheng-wei Zhu</i>	432
Research on Construction Method of Association Rule Mining Based on the Hash-tree <i>Feng Chen, Yuanhua Jia, Zhonghai Niu and Huixin Yi</i>	435
Application of Parallel Computation on Numerical Simulation for the Fluid Flow Field of Fan <i>Junjie Zhou, Xiaoqian Li, Dingbiao Wang, Bo Liu and Jinhui An</i>	441
Influence on IP-QoS the Scheme of Multi-class Routing Choose in MPLS <i>Lian-jun Zhang</i>	448
Streaming Media Technology in the Digital Library InformationTransmission <i>Li-fang Zhao</i>	451
Attribution Reduction Algorithm Based on Improved Binary Discernibility Matrix <i>Ju Li</i>	456
Study on Trafficability of SL1400-Beach Vehicle <i>Wenshun Huang, Xiaohong Ge and Hongwu Huang</i>	460
An Adaptive Feedback Interference Cancellation Algorithm for Digital On-channel Repeaters in DTTB Networks <i>Chang Liu, Wei Xia, Zishu He, Rui Qian and Jianlin Zhou</i>	466
Design of Intelligent Lighting Controller Based on ARM <i>Zhan-ao Ma and Li-chao Sun</i>	471
On-line Scheduling Algorithm with Precedence Constraint in Embedded Real-time System <i>Ming Zhao and Xiao-Yu Song</i>	475

Session 9

The Application of Data Mining in CRM <i>Ju Li and Xing Wang</i>	480
Fuzzy Comprehensive Evaluation of Enterprises Information Management Capabilities <i>Rong-guang Qi and Zhan-ping Li</i>	484
Technology Analysis of Permanent Magnet Synchronous Motor Based on Patent Information <i>Jie Zhang, Jing Cui and Dongsheng Zhai</i>	490
Research on the Strategy and Distance Precision of Modernized GPS M-code Signal <i>Jie Wang, Xuejun Zhao and Hang Li</i>	496
Application of Virtual Reality Technology on Teaching of Basic Computer <i>Xiafei Hao and Min Li</i>	500
Application Research of H-field Antenna in Enhanced Loran <i>Jie Wang, Hang Li and Jian Zhao</i>	505
Improved Genetic-Tabu Search Algorithm in Bus Scheduling Study <i>Qing-rong Wang, Chang-sheng Zhu, Hong-yong Huang, Yuan Yuan and Qingrong Wang</i>	510
The Trust Model Based on Punish Mechanism in Peer-to-Peer Network <i>Qing-rong Wang, Chang-sheng Zhu, Ying-ying Gao, Lei Qian and Qing-rong Wang</i>	516
Numerical Computing Method Based on Cellular Automata <i>Dewei Fan and Hesheng Tang</i>	520
A New Registration Method Base on Improved Sobel and SIFT Algorithms <i>Qiu-ju Yang and Xue-mei Xiao</i>	528
Session 10	
Seismic Attributes Extraction Based on GPU <i>Guang-zhi Zhang, Lei Chen and Duan-nan Ye</i>	534
Mining Condensed Non-Redundant Level-Crossing Approximate Association Rules <i>Yuhang Zhao, Jianbo Liu and Lei Zhang</i>	540
An Improved Mosaic Graphic Algorithm for Human-Computer Identification <i>Cai-yun Gao, Tian-jie Cao and Ai-chun Zhu</i>	546
Object Automatic Serialization and De-serialization in C++ <i>Hua Chen and Yi-ning Luo</i>	553
Mechanical Fault Diagnose of Diesel Engine Based on HOC and SVM <i>Hongyun Liao, Lingling Zhang, Yajuan Cao, Yunkui Xiao and Huimin Zhao</i>	559
Based on the Orthogonal Test Method Optimizing and Settings the Ant Colony Algorithm Parameters <i>Jian Liu, Junhong Wang, Jie Zhang and Tong Zhou</i>	565
Molybdenum-Ray Image Recognition of Breast Cancer Based on Fractal Texture Analysis <i>Dong-feng Yang</i>	570
The Remote Motor Control System Based on the Embed Web Server <i>Xiao-Hui Su, hao Guo and Shu-Ping Xu</i>	577
The Application of Local Operator of Edge Detecting in the Extraction of Waxberry Contour <i>Tiejun Zhang and Junying Zhao</i>	583
Low Complexity Multi-user Scheduling with Quantization <i>Juan Hang, Yuanfeng Zhang and Feng She</i>	589
Power Management and Simulation of Renewable DC Power System <i>Sanbo Pan and Xiafei Hao</i>	596
Author Index	603