

PEEA 2011

Procedia Engineering Volume 23

**Shenzhen, China
24-25 December 2011**

**ISBN: 978-1-62748-579-1
ISSN: 1877-7058**

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2011) by Elsevier B.V.
All rights reserved.

Printed by Curran Associates, Inc. (2013)

For permission requests, please contact Elsevier B.V.
at the address below.

Elsevier B.V.
Radarweg 29
Amsterdam 1043 NX
The Netherlands

Phone: +31 20 485 3911
Fax: +31 20 485 2457

<http://www.elsevierpublishingsolutions.com/contact.asp>

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com



Contents

Ant Colony Algorithm based on Path Planning for Mobile Agent Migration Z. Zhishui	1
Research on Control Methods of Brake Resistance of HEV W. Weida, Y. Lijuan, X. Changle, M. Yue	9
A Kind of Cascade Anti-Jam Method for GPS Receiver Z. Zhu, Z. Er-Yang, L. Shu-Jun	16
Study on Tester Method of MOA Resistive Current X. Liu, D. Zhao	24
Adjustment Strategy for Dynamic Tracking Neuro-Fuzzy Controller K. Xu, G. Zhang, Y. Xu	29
The Research on Coding Scheme of Binary-Tree for XML X. Ke	34
A Memory Optimized Design and Simulation for Numerical Controlled Oscillator J. Han, S.-F. Zhang, B.-Y. Cao, L.-J. Huang	39
Research on the Failure and Material Selection of Plastic Mold B. He	46
Three-Dimensional Surface Modeling using Intelligent Database Techniques S.M. El_Hefnawy	53
Design of New Oscilloscope based on FPGA H. Haoran, Z. Fei	60
JSF-based Framework for Device Management System Design and Research W. Meng, W. Yan-En, Z. Wen-Xiao, Y. Chen	65
Fuzzy based Flatness Control of an Induction Motor L. Fan, L. Zhang	72
A Fault-Tolerant Router's Simulation and Design based-FPGA in Network-on-chips J. Han, S.-F. Zhang, L. Yanyan, B.-Y. Cao, L.-J. Huang	77
Research and Application of Heating Network Balance in Central Heating based on GSAA Z. Yuwei, L. Guohuan, X. Xisen	84
Study on Load Torque Identification On-Line based on Vector Control of Saliency PMSMs W. Zhiyu, W. Changsong, Q. Xin, M. Xianghua	89
Schrödinger Equations for Delta Potential Barrier in Quantum Phase Space J. Lu	95
The Research on a Network Invasion Prevention Model based on Information Field Feedback H. De	99
The Research on Distributed Data Stream Mining based on Mobile Agent Y. Fuqiang	103
Data Processing of Photovoltaic System on DSP 2812 Y. Wang, G. Ouyang, X. Zhang	109
Analysis of Parameters and Performance for Spiral Grooved Cylindrical Gas Film Seal G. Ma, W. Zhao, X. Shen	115
The Signal Detection in TWACS based on IIR Filter W. Liang, W. Lu, J. Fan	120
Electric Hydraulic Accelerator Control Device In AMT Y. Zhao, J. Chen	125
An Artificial Bee Colony Algorithm based on Problem Data Properties for Scheduling Job Shops R. Zhang	131
The Application of X-Ray Digital Real-Time Imaging Technology in GIS Defect Diagnosis X. Cai, D. Wang, H. Yu, X. Zhao, W. Zhang	137
The Study on Knowledge Management Performance Evaluation using Neural Network H. Zhou	144

A Mobile Ad-Hoc Network Data Cache Invalidation Method L. Jia	150
Research on Genetic Algorithm and Data Information based on Combined Framework for Nonlinear Functions Optimization Z. Ji, Z. Li, Z. Ji	155
Research on Genetic Algorithms based on Real Coded and Data Information for Global Optimization Z. Ji, Z. Li, Z. Ji	161
The Research and Application on Intelligent Control in Boiler Combustion System S. Wen, J. Yongcheng	167
Power Quality Improvement for Microgrid in Islanded Mode G. Xiaozhi, L. Linchuan, C. Wenyan	174
The Study on Integrated Network Architecture in Next Generation Network Services T. Xiaolin	180
An Novel Chaotic Image Encryption Algorithm based on Tangent-Delay Ellipse Reflecting Cavity Map System H. Feng-Ying, Z. Cong-Xu	186
Theoretical Analysis on the Filtering Accuracy of the White Noise Equivalence of Colored Measurement Noise L. Wu, C. Mao, F. Lu, X. Lei	192
The Strategy of Region Split in LRPCA L. Zhufeng, C. Gang	199
A Novel Method for P2P Traffic Identification W.-m. Hong	204
Time-Frequency Analysis of Acoustic Emission Signals Generated by Tension Damage in CFRP C. Lu, P. Ding, Z. Chen	210
Improved BP Neural Network's Application in the Bank Early Warning T. Zhong, W. Li-Yuan	216
Thermal Behavior of PM In-Wheel Motor used in Off-Road Motor Driven Truck S. Yanhua, J. Chun	222
A Mobile Ad Hoc Networks Algorithm Improved AODV Protocol Z. Qiankun, X. Tingxue, Z. Hongqing, Y. Chunying, L. Tingjun	229
COST-based Design PMA for Certain Navigation Radar M. Shang, X. Aiqiang, Z. Xiuli, Y. Chunying, L. Tingjun	235
Optimization and Application of Real-Valued Negative Selection Algorithm X. Aiqiang, L. Yong, Z. Xiuli, Y. Chunying, L. Tingjun	241
Physical Education Curriculum Models to Choose - to Jinhua Vocational & Technical College as an Example M. Haobo	247
A Distributed Simulation Schedule Strategy based on Synchronous Startup Z. Shen, Y. Wang, C. Guo	253
Transparent Encrypting Office Document based on Plug-in Software Z. Zhen-Liu, T. Ling, L. Zhuo-Ling	260
An Adaptive Mean Shift KAlgorithm based on LSH Y. Cui, K. Cao, G. Zheng, F. Zhang	265
Dynamic Pricing in B2C based on Online Product Reviews H. Wang, W. Zhang, L. Zheng	270
Design of Stochastic Sliding Mode Variable Kstructure Kuidance Law based on Adaptive EKF Z. Hui, L.W. Jun, Y.J. Hui, X.Y. Bo	276
Dynamic Simulation of the Equipment Repair Support System based on the OPN Model N. Hui, S. Yanbin, G. Xianjun	284
The Design of Hybrid MAC Protocol for Industry Monitoring System based on WSN Q. Zhang, Y. Liu, H. Guo, Q. Zhang	290
Research on Information Integration for Multidisciplinary Collaborative Design of Complex Customized Product L. Haiqiang, C. Guojin	296
Palmpoint Recognition based on Curvelet Transform Decision Fusion W. Xinchun, Y. Kaihua, L. Yuming, Y. Qing	303
Countering Web Spam of Link-based Ranking based on Link Analysis H. Wang, Y. Li, K. Guo	310
Application of Monte Carlo Method in Recharge Calculation of Underground Water Resources Z. Zhen-Min	316
The Linear Colorant Mixing Space based on Kubleka-Munk Turbid Media Theory S.-hua He, Z. Liu	320
An Improved Isoline based Data Aggregation Scheme in Wireless Sensor Networks R. Guocan, D. Guowei	326
A Photocatalytic Organic Wastewater Disposing System based on Solar Energy F. Guokai, H. Yiyue, Z. Zhi	333
Experimental Research on the Multimedia CAI Courseware in the University Tennis Teaching H. Wanliang, L. Dan	339

Adaptive Image Denoising Algorithm based on Correlativity J. Li, W. Dai	345
Review on Fruit Harvesting Method for Potential use of Automatic Fruit Harvesting Systems P. Li, S.-h. Lee, H.-Y. Hsu	351
Design and Implement of Welding Motor Control System based on Wireless Sensor Network Y. Zhuo, H. Xiaowei, D. Xinxiao	367
Design of Greenhouse Surveillance System based on Embedded Web Server Technology G. Junxiang, D. Haiqing	374
Design of Low-Noise Centrifugal Fan for Motorized Spindle Cooling System S. Yu, J. Li	380
A Simple Method for Solving Multiperiod Mean-Variance Asset-Liability Management Problem H.-x. Yao	387
Portfolio Selection based on Nonparametric Estimation and Quadric Utility Maximization Framework H.-x. Yao	392
Research on Deadbeat Control of a Three-Level Grid-Connected Inverter based on $\alpha\beta$ Transform H. Junping, Y. Lei, W. Xuesong, W. Jian	397
An Emergency Communication Architecture based on Ethernet and WSN for Coal Mines H. Wang, F. Luo, K. Wang, Y. Xu	403
Study on Citrus Fruit Image Data Separability by Segmentation Methods P. Li, S.-h. Lee, H.-Y. Hsu	408
Design and Simulation on a Novel UPQC Topology & its Control Strategy H. Junping, C. Jiao, N. Ze	417
The Contact Analysis for Deep Groove Ball Bearing based on ANSYS T. Zhaoping, S. Jianping	423
Experimental Comparison of Six Fixed Classifier Fusion Rules A. Mi, Z. Huo	429
A Survey on Automatic Image Annotation and Trends of the New Age F. Wang	434
The Parametric Design and Motion Analysis about Line Translating Tip Follower Cam Mechanism based on Model Datum Graph S. Jianping, T. Zhaoping	439
A Time-Delay Estimation Method against Correlated Noise Z. Rubo, L. Guanqun, L. Xueyao	445
Implement and Analysis of a COMPASS/GPS Software Receiver X. Weihua	451
Mechanical Response of Square Honeycomb Sandwich Plate with Asymmetric Face Sheet Subjected to Blast Loading T. Wang, M. Ma, W. Yu, S. Dong, Y. Gao	457
The Simulation of Stepping Motor under Two Kinds of Condition X. Liu, D. Zhao	464
Adaptive Perturb and Observe MPPT Technique for Grid-Connected Photovoltaic Inverters Y. Yang, F.P. Zhao	468
Investigation of Ni-YSZ SOFC Anode Fabricated Via Electroless Nickel Co-Deposition N.B. Baba, A. Davidson	474
Fuzzy Clustering and Visualization Analysis of Tool Wear Status Recognition P. Fu, W. Li, L. Guo	479
Development of Environmental Health Information Management Platform S.-Y. Chen, J.-T. Huang, N.-T. Chen, M.-W. Feng	487
Experimental Investigations on a Conventional Air-Conditioner Working as Air-Water Heat Pump Y. Wang, Y. You, Z. Zhang	493
Study on Planning of Urban Infrastructure based on Ecologized Landscape Design G. Yuan, Y.H. Ru	498
Naive Bayesian Classifier based on Genetic Simulated Annealing Algorithm L. Jie, S. Bo	504
An Efficient Cloud Storage Model for Heterogeneous Cloud Infrastructures D. Wang	510
Study on Different Sports Courses Influence on College Students S. Lina, T. Hua	516
Multithread and Circle Buffer Technique Applied in the Online Inspection of Raw Silk Size Z. Huang, B. Chi, S. Dong, G. Wang, H. Xu	521
SEU Tolerance Design and Implementation of a Space High Reliability Microprocessor B. Bin, W. Min, W.Y. Long	525
Performance Analysis of Re-Adhesion Optimization Control based on Full-Dimension State Observer L. Wenli, Z. Leiting, D. Kan	531
Design of A Ticket-based Single Sign-on Protocol L. Fan	537

Numerical Simulation of Fluid Flow Inside the Valve Q. Yang, Z. Zhang, M. Liu, J. Hu.	543
Research and Application on “Composite Tooth Institutions” in the Gas Compressor Product S. Weihua, S. Jinfeng.	551
A New Bidirectional Method for Ontologies Matching H. Belhadef.	558
An Efficient Method for Electric Meter Readings Automatic Location and Recognition Z. Cai, C. Wei, Y. Yuan.	565
Fast Motion Estimation Scheme for H.264/AVC using Adaptive Single and Multiple Reference Picture Selections J.-S. Oh, D.-W. Kim, J.-T. Kim.	572
The Influence Study on X-Ray Irradiation for the Transformer Insulating Oil H. Yu, J. Wei, D. Wang, X. Zhao, X. Tan.	578
Study on the Security Models and Strategies of Cloud Computing J. Che, Y. Duan, T. Zhang, J. Fan.	586
A New Approach of Composite Surface Reconstruction based on Reverse Engineering Z. Min.	594
Design and Implementation of Multiple-Output Power Supply for Electric Kehicle C.-L. Chu, C.-J. Liang, J.-R. Chen, M.-C. Pan, H.-J. Wang.	600
Study of an Electric Vehicle Drive Dynamic Testing System with Energy Recovery C.-L. Chu, C.-W. Chou, J.-R. Chen, H.-Y. Chan, J.-H. Fang.	608
Comparative Evaluation of Modulation Strategies for a Star-Connected Three-Phase Boost Rectifier M.-T. Tsai, B.-J. Jiang.	616
A Real-Valued Image Encryption by an Optical System of a Fresnel Diffraction and a Fourier Transform W. Huaisheng.	622
Verb Consciousness Passwords in the Fingers (3) Y. Zhu.	627
Combining F-K Filter with Minimum Entropy Stolt Migration Algorithm for Kubsurface Object Imaging and Background Permittivity estimation H. Zhou, X. Wan, W. Li, Y. Jiang.	636
Non Prior Knowledge Estimation of Modulation Index for Angle Modulation Signals Z. Zhong, L. Zhang, H. Wu, S. Xia.	642
A Novel Image Denoising Algorithm based on Crank-Nicholson Semi-Implicit Difference Scheme C. Ke, W. Feng, S. Qing-Wei.	P 1C
The Study on Network Attacks based on Automaton Theory S. Qing-Wei, C. Ke, W. Feng.	653
A Mobile Ad hoc Network Public Key Encryption Algorithm based on Hash-Chain W. Feng, S. Qing-Wei, C. Ke.	659
A TMS320C6416 DSP Real Time Implementation of Continuous Wavelet Filtering Module Y. Hai-Chun.	665
The Study on Energy optimization in MAC Protocol Design for Wireless Networks J. Ke-Ke.	671
A 3D Image Reconstruction Model from Multiple Images Z. Xiang, C. Sheng-Yong.	678
A Novel Synchronous Buck Topology for Battery Charger J. Li, L.-H. Zhao.	684
Development of a Soft-Switching Power Supply for Ozone Generation based on Phase-Shifted Control S. Chao, M. Zhiqiang, C. Yandong.	690
A Threshold-based Dynamic Resource Allocation Scheme for Cloud Computing W. Lin, J.Z. Wang, C. Liang, D. Qi.	695
Theoretical and Empirical Analysis on the Expectation of Chinese Inflation: Evidence from Inflation in 2009 and 2010 C. Jing-Quan.	704
Genetic Keyframe Extraction for Soccer Video X. Yang, Z. Wei.	713
Simulink/Modelsim Co-Simulation and FPGA Realization of Speed Control IC for PMSM Drive Y.-S. Kung, N.V. Quynh, N.T. Hieu, C.-C. Huang, L.-C. Huang.	718
Reactive Behavior for Mobile Robotic through Graphic Simulation Environment A. Benitez, J. de la Calleja, M.A. Medina, E. López, G. Martínez.	728
Performance Evaluation of Enterprise Knowledge Management C. Kai.	733
The Research on the Processing Method of the Loop Closing in Distribution Network X. Li, L. Lin, W. Han, Q. Zhao.	740
The Application of Adaptive PSO in Power Reactive Optimization P. Zhaoyu, L. Shengzhu, Z. Nan.	747

Detection of Weak Signal in Strong Noise based on NBS Chaos System L.Z. Wang, Y.F. Gao	754
Improved Oxidation Resistance of a Nanocrystalline Lanthanum-Implanted FeCr Alloy D.S. Khaerudini, M.A. Othman, S. Mahzan, P. Untoro, D. Sebayang	760
The Applied Research of Hydroturbine Prime Mover and Governor Modeling of in the Yunnan Power Grid L. Wang, H. Wang, D. Wang	765
The Vacuum Control System Design in Ultracentrifuge Chamber Z. Jun, L.B. Feng, H.Y. Zhe, X. Yang, Z.S. Cheng	769
Voltage Sag Detection based on Dq Transform and Mathematical Morphology Filter O.-y. Hua, B. Le-Ping, Y. Zhong-Lin	775
Game based Virtual Bandwidth Allocation for Virtual Networks in Data Centers C.-r. Wang, K. Liu, C. Wang	780
Global Modular Production Network: From System Perspective H. Cao, H. Zhang, M. Liu	786
Milling Dynamics of Flexible Part with Helix Angle M.M. Akhtar, X. Huang, C. Wenliang, Z. Lin	792
Soft Start-Up Smoothness of Hydro-Viscous Drive (HVD) Set for Heavy-Duty Motor C. Zengquan, C. Ning, S. Qin	799
Probabilistic Analysis for Capacity Planning in Smart Grid at Residential Low Voltage Level by Monte-Carlo Method W. Du	804
Effects of Lubricant Oils on the Hydro-Viscous Drive Set Working Performance C. Zengquan, C. Ning, S. Qin	813
The Evolution of Ablation Area Induced by Femtosecond Laser D.Q. Yuan, M. Zhou, D.Q. Lu, H.M. Wang, J.T. Xu	817
A Fuzzy ANP-based Approach to Evaluate Region Agricultural Drought Risk J. Chen, Y. Yang	822
An Efficient Cultural Particle Swarm Optimization for Economic Load Dispatch with Valve-Point Effect Q. Niu, X. Wang, Z. Zhou	828
Building the Model of Artificial Stock Market based on JASA K. Wei, S. Cai-Hong	835
Retraction notice to "A Novel Image Denoising Algorithm based on Crank- Nicholson Semi-Implicit Difference Scheme" C. Ke, W. Feng, Q.-w. Shang	P IC