

# **International Conference on Computer Science and Electronic Technology**

**(ICCSET 2014)**

**Advances in Computer Science Research Volume 6**

**Shenzhen, China  
27-28 December 2014**

**ISBN: 978-1-63439-974-6**

**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© (2014) by Atlantis Press  
All rights reserved.  
<http://www.atlantis-press.com/php/pub.php?publication=iccset-14>

Printed by Curran Associates, Inc. (2015)

For permission requests, please contact Atlantis Press  
at the address below.

Atlantis Press  
29 avenue Laumière  
75019 Paris  
France

[contact@atlantispress.com](mailto:contact@atlantispress.com)

**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](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

# TABLE OF CONTENTS

<b>The Visualization Research of User Observation and Quantitative Information .....</b>	<b>1</b>
<i>Xin Zhang, Hai Fang, Fei Hu</i>	
<b>Risk Evaluation of Gas Pipeline Based on Rough Set.....</b>	<b>9</b>
<i>Hongyan Gu</i>	
<b>Research and Simulation of Network Intrusion Detection Algorithm Based on Fuzzy Classification .....</b>	<b>14</b>
<i>Chun Liu</i>	
<b>Research on Face Recognition Method of Airport Security with Certificate Inspection.....</b>	<b>18</b>
<i>Ning Zhang, Jin-fu Zhu</i>	
<b>Optimization Method of Concurrency Scheduling of Graphical Database Transaction .....</b>	<b>22</b>
<i>Lin Nan, Dongming Li, Yongqi Han</i>	
<b>An Improved Neural Network Optimization Method .....</b>	<b>27</b>
<i>Wen-long Yin, Tian-hui Zhang, Li-hua Guo, Jie Tao</i>	
<b>Rotor Stationary Control Analysis Based on Coupling KdV Equation Finite Steady Analysis.....</b>	<b>31</b>
<i>Dalong Liu, Lijuan Xu</i>	
<b>Virtual Reality Technology and Application in Distance Education Presentation.....</b>	<b>36</b>
<i>Hong-Xuan Hua</i>	
<b>Intelligent Shutter System Design of Photovoltaic Power Generation Based on Single Chip Microcomputer Control .....</b>	<b>40</b>
<i>Mingfei Qu, Dan Zhao</i>	
<b>Mechanical Hydraulic Control of Water Turbine Based on Improved PID Algorithm .....</b>	<b>44</b>
<i>Xing-Hua Lu</i>	
<b>Research of Detection Method of Server Network Storm Attack .....</b>	<b>48</b>
<i>Liao Lang</i>	
<b>Analysis of Impacting Factors on Runoff and Sediment Transport of Flood Event in Gushanchuan Watershed .....</b>	<b>52</b>
<i>Shuangyan Jin, Xinhui Jiang, Zhiheng Zhang</i>	
<b>The Establishment of AHP-Fuzzy Model for Comprehensive Evaluation of “City Obesity” Degree .....</b>	<b>56</b>
<i>Suying Xiang, Xiaofeng Li</i>	
<b>Adsorption of Uranium-containing Wastewater by Sugarcane Stalks.....</b>	<b>63</b>
<i>Yi Xin, Wu Deng</i>	
<b>The Research on Energy Releasing Control of Travelling Charge.....</b>	<b>67</b>
<i>Tai-xin Liang, Bing-feng Lv, Zhong-liang Ma, Zhong-liang Xiao</i>	
<b>Establishment of the Fatigue Curve Model Based on Stress Ratio.....</b>	<b>71</b>
<i>Liang Zhu, Yiliang Zhang, Xiaohui Li, Hongbo Suo</i>	
<b>Vegetable Quality and Safety Supervision Technology Integration Solutions and Evaluation.....</b>	<b>76</b>
<i>Ma Chen, Jin Li</i>	
<b>Biofilm Accretion and Start-up By Aerated Active Sand Biofilter .....</b>	<b>83</b>
<i>Yuxi Shen, Jincheng Li</i>	
<b>Synthesis of Polyaniline in Electrospun Microfibers Via In-situ Polymerization and the Formation of Self-assemble Polyaniline Particles.....</b>	<b>87</b>
<i>Haiying Cui, Hui Zhou, Xuejing Zhang, Chengting Zhao</i>	
<b>Isotherm Study on Adsorption Removal of Pb (II) by MCM-41 Zeolite Synthesized from Biomass Ash.....</b>	<b>91</b>
<i>Gang Tan, Yongjie Xue, Jun Cai</i>	
<b>Phenol Adsorption onto Modified Industrial Solid Waste Adsorbents in the Presence of Cationic and Anionic Surfactant.....</b>	<b>97</b>
<i>Gang Tan, Yongjie Xue, Li Wan</i>	
<b>Adsorption Mechanisms of Purified Attapulgit for Zn<sup>2+</sup> in Aqueous Solution.....</b>	<b>103</b>
<i>Ling Tao, Yina Li, Yaqiong Zhao, Jun Ren, Yijie Wang</i>	
<b>Lateral Load-carrying Capacity Research of Steel Plate Bearing in Space Frame Structure .....</b>	<b>108</b>
<i>Menghong Wang, Xueting Yang, Yashen Liu, Chunyue Song, Shanshan Shi</i>	
<b>Reconstruction and Overcommercialization of South Luogu Lane.....</b>	<b>113</b>
<i>Yi-lin Liu, Yu Huang</i>	
<b>Analysis of the Water Quality Deterioration in Secondary Water-supply Systems .....</b>	<b>120</b>
<i>Cuihua Li, Guanye Wang</i>	
<b>The Effect of Dispersoids on Recrystallization Behavior of Al-Er and Al-Er-Zr Alloys at Different Aging State .....</b>	<b>124</b>
<i>Jie Hou, Shengping Wen, Kunyuan Gao, Hui Huang, Wei Wang, Zuoren Nie</i>	

<b>The Investigation on the Engineering University Students' Entrepreneurial Quality</b> .....	128
<i>Zhilong Cheng, Hao Ding</i>	
<b>Effects of Er and Zr Additions on Precipitation and Recrystallization of Al-Mg Alloy</b> .....	132
<i>Wanhui Zhao, Shengping Wen, Wei Wang, Hui Huang, Zuoren Nie</i>	
<b>Survey of Synthesis and Application of Molybdenum Diselenide</b> .....	136
<i>Shuyan Qi, Xiaohu Liu, Bochao Zhao, Huanyan Xu</i>	
<b>Effect of Cr Content and Heat Treatment on Microstructures and Mechanical Properties of Cu-Cr-Zr Alloys</b> .....	140
<i>Qing-juan Wang, Xiao Zhou, Xiao-wen Zhang, Bo Liang, Zhong-ze Du</i>	
<b>Research on the Indirect Thermal Drying Sludge Technology Based on Spiral Equipment</b> .....	145
<i>Jian Hua Tao, Bin Chen, You Wen Bao, Cheng Pu Jin</i>	
<b>Modal Analysis of the Printed Circuit Board Based on Finite Element Method</b> .....	150
<i>Guoquan Ren, Ben Li, Dongwei Li, Yingqi Jiao</i>	
<b>Improved Probability Algorithm Based on Low Energy Bluetooth Technology</b> .....	155
<i>Zhu Lin</i>	
<b>Research on Industrial Control Strategies of Industrial Ethernet and Fieldbus</b> .....	158
<i>Xuefeng Tan, Yachun Dong</i>	
<b>Separation Properties of Countable Infinite Iterative Function System Based on the Discrete Element Method</b> .....	163
<i>Xiaochun Tang, Wei Zhang, Meili Dai</i>	
<b>Analysis and Application of the Computer Network Information Data Mining Based on Clustering Algorithm</b> .....	168
<i>Zequan Shi, Ying Wang</i>	
<b>Optimization Analysis of XML Embedded System Based on J2ME Platform</b> .....	172
<i>Ying Wang, Zequan Shi</i>	
<b>The Application and Research of Property-management Information System based on JSF Technology</b> .....	176
<i>Tang Lin</i>	
<b>Physique Characteristics of Ethnic Archers Based on R-cluster Matrix</b> .....	181
<i>Yunfeng Wang, Yinan Ma</i>	
<b>Application Research of Library Management System of Network and Information Technology</b> .....	186
<i>Junxia Qi</i>	
<b>Exploration and Research on Intelligent Traffic Control System based on Cloud Computing</b> .....	192
<i>Hongxia Liu</i>	
<b>Design on Network Management System of Community Movements Based on ASP and VB.NET Technology</b> .....	198
<i>Yuanhai Wang</i>	
<b>Research on Data Synchronization Technology of Mobile Database Based on Real-time Embedded System</b> .....	203
<i>Yajie Xiao</i>	
<b>Design on jQuery Evaluation System Framework of Movements Resource</b> .....	208
<i>Yuanhai Wang</i>	
<b>Research on the CBI System of Four-dimensional Model</b> .....	212
<i>Cuiping Ji</i>	
<b>Network Psychological Status and Role Analysis Based on Theory of Personality Interaction</b> .....	216
<i>Tianlin Chen, Lan Luo</i>	
<b>The Development of Group Psychology Measurement System based on Computer Multimedia Technology</b> .....	221
<i>HuaJie Sui, YaoHui Ye, ZhiBing Zhong</i>	
<b>The Formalization Research on Self-adaptive Psychological Surveying System</b> .....	226
<i>Lan Luo, Tianlin Chen</i>	
<b>Network Environment Design of Computer Personality Psychology Based on the Personalized Data Mining Method</b> .....	230
<i>Zhibing Zhong, Jurong Yang, Xiaofei Xiao</i>	
<b>Analysis of Job Satisfaction based on Oracle Database</b> .....	235
<i>Tao Wang</i>	
<b>Application of Computer 3D Simulation in Architectural Art Effect</b> .....	239
<i>Peng Wei</i>	
<b>Study on CEI Network Model of Public Management</b> .....	243
<i>Dingsong Lan, Shouyan Cheng</i>	
<b>Emergencies Prediction Model Based on Efficient Mining for Micro-blog</b> .....	248
<i>Wenxia Bi</i>	

<b>Research for Digital Video Image Processing of Table Tennis</b> .....	253
<i>Ying Xuan, Chang Liu</i>	
<b>Mathematical Classification Process Modeling for Massive Data with Small Differences</b> .....	258
<i>Ge Gou</i>	
<b>Research on Transaction Security Detection Algorithm for Large-scale E-commerce Website</b> .....	262
<i>Guixiang Hu, Xinjie Qian, Qiulin Fu, Bo Yang</i>	
<b>An Optimization Scheduling Model for Multi-user Software Under Cloud Computing Environment</b> .....	266
<i>Xiang-gang Wang</i>	
<b>Detection Technology for Underlying Intrusion of Large Embedded Network</b> .....	270
<i>Yimei Lai</i>	
<b>Effective Scheduling Model of Data in Financial Management Software Running Process</b> .....	274
<i>Jianchun Sun</i>	
<b>The Simulation of the Optimal Classification Mathematical Model Based on Chaos Probabilistic Analysis</b> .....	278
<i>Chunyan Lv, Chuan He, Erwei Wang</i>	
<b>The Modeling of College Students' Psychological Health Based on Statistical Analysis</b> .....	282
<i>Huilin Wang</i>	
<b>Detection of Behavior Violating Ethics Rules in Computer Networks</b> .....	286
<i>Fan Yang</i>	
<b>The Mathematical Model Simulation of Law Risk Evaluation for Intellectual Property Protection</b> .....	289
<i>Caixia Zou, Bing Zhou</i>	
<b>Intrusion Detection Localization Method of Large Association Embedded Network Equipment</b> .....	293
<i>Liao Lang, Zhenjia Zhu</i>	
<b>Design and Implementation of Large Mass Information Management System</b> .....	297
<i>Haiping Zhang</i>	
<b>Design and Implementation of Web Based on Laravel Framework</b> .....	301
<i>Ren Yu He</i>	
<b>Design and Implementation of an Iterative Optimization Algorithm Based on the C Language</b> .....	305
<i>Ce Yao</i>	
<b>The Role of Information Technology Application Research</b> .....	308
<i>Baowei Zhang</i>	
<b>A Snort-based Approach for Heartbleed Bug Detection</b> .....	312
<i>Yu Zhang, Qingzhong Liu, Yanling Liu</i>	
<b>Embedded Network Video Monitoring System</b> .....	317
<i>Long Chen, Zhihui Zhang, Peng Gao</i>	
<b>New Randomized Partially Blind Signature Scheme</b> .....	321
<i>Xinghua Zhang</i>	
<b>Goodness-of-fit Test for Normally Distributed Ar(1) Disturbances of the Multiple Linear Regression Model</b> .....	325
<i>Yan Su, Ya-Ping Huang, Xia-Ying Su</i>	
<b>The Geometry Optimization Design of a Rectangular Cross-sectional Rail Launcher</b> .....	331
<i>Chengwei Yang, Zhen-yuan Liu, Bao Kang</i>	
<b>Image Adaptive Edge Detection Based on Canny Operator and Multiwavelet Denoising</b> .....	335
<i>Lin Zhang</i>	
<b>An IETM Application Research of Equipment Testing Fault Auxiliary Diagnosis Based on Web</b> .....	339
<i>Jun Peng, Hui Li, Qingjiang Wang, Pei Cheng, Xin Shan</i>	
<b>SIFT Points for Screening Based on Random Forest in INS/SAR System</b> .....	343
<i>Hao Dou, ShaoJun Li, Xiao Sun, Tian Tian, ShuiPing Zhang, DeLie Ming</i>	
<b>Turing-computability of Solution of Hirota Equation</b> .....	347
<i>Dianchen Lu, Liming Fu</i>	
<b>Ship Detection in Strong Clutter Environment Based on Adaptive Regression Thresholding for HFSWR</b> .....	352
<i>Yonggang Ji, Leda Xu, Yiming Wang, Xiaoliang Chu</i>	
<b>Technique of Optical Target Fusion Recognition Based on Fuzzy Evidence Theory</b> .....	356
<i>Jian-biao Chen, Hua-yan Sun, Yong-hui Zheng</i>	
<b>Construction Based on the Social Development Needs of the University Network Platform</b> .....	360
<i>Gong Yu</i>	
<b>A Research of How to Distinguish Suspicious Data</b> .....	364
<i>Sheng-zhi Guo, Li-sen Pu, Cheng-wei Yang</i>	
<b>Spares Inventory Optimization Based on System Availability</b> .....	368
<i>Rui Wang, Chen Qi, Wei Tao</i>	

<b>Turing Computability of the Solution Operator of a Higher Order Modified Camassa-holm Equation</b> .....	374
<i>Dianchen Lu, Qiaoqiao Chen</i>	
<b>Fast Image Retrieval Based on Two-dimensional Embedding</b> .....	379
<i>Kui Zhao, Shihan Wang, Wei Wang</i>	
<b>A Depth Map Acquired By Integrated Imaging Based On Adaptive Matching Window</b> .....	383
<i>Xia Wen, Yu Wang, Yan Piao</i>	
<b>Restoration Technology of the Video Under Snow</b> .....	387
<i>Xiaomeng Zhou, Yan Piao, Ge Shi</i>	
<b>Recommendation with Item Clustering Based Collaborative Filtering</b> .....	391
<i>Xin Wang, Zhi Yu, Can Wang</i>	
<b>An Improved Non-negative Matrix Factorization Algorithm Based on Genetic Algorithm</b> .....	395
<i>Sheng Zhou, Zhi Yu, Can Wang</i>	
<b>Online Multi-keywords Map-search Algorithm Based on Sub-region Method</b> .....	399
<i>Zhi Yu, Zhonghan Sun, Yinlong Zhu, Can Wang</i>	
<b>The Survey of Big Data</b> .....	403
<i>Qi Fu, Jun Tan, Yufang Xie</i>	
<b>A Micro Blog Recommendation System Based on User Clustering</b> .....	408
<i>Lei Chen, Chao Jiang, Wei Wang</i>	
<b>The Research of Chinese Name Entity Disambiguation Based On Word Sense Disambiguation</b> .....	412
<i>Gang Wang</i>	
<b>Empirical Study on the Urbanization Promoting the Chinese Economic Growth</b> .....	417
<i>Huirong Jing</i>	
<b>Study on the Structure of Chinese Dual Economy</b> .....	421
<i>Huirong Jing</i>	
<b>The Principle of Urbanization Promoting Chinese Economic Growth</b> .....	425
<i>Huirong Jing</i>	
<b>Optimal Scheduling of Combined cooling heating system</b> .....	429
<i>Shulei Deng</i>	
<b>The Design of Desktop Two Rounds of Self-balancing Robot</b> .....	433
<i>Yingkun Zhang, Hao Hao, Zhuo Zhen</i>	
<b>Fingerprint Space Building Algorithm with Kriging for Large Positioning Regional Environment</b> .....	437
<i>Yue Wang, Wei-jia Cui, Da-ming Wang, Zhi-yu Lu</i>	
<b>The Least Energy Criterion LEC and Its Application in Model Selection</b> .....	443
<i>Mu Qiao, Peng Wang</i>	
<b>Algorithm of Repeated Results Re-ranking based on Polysemy</b> .....	448
<i>Pengwei Guo, Bin Zhang, Da-ming Sun</i>	
<b>On the Model Design of Human Resource Management Based on Knowledge Management</b> .....	456
<i>Xiaohong Zhou</i>	
<b>Study of the Method for Single Missile Storage Life Evaluation Based on Test Data</b> .....	462
<i>Wen Jun Xi, Wen Shuang Wang</i>	
<b>Effective Length Of Quantum Confinement And Polaron Effect In A GaAs Film Deposited On Al0.3Ga0.7As Substrate</b> .....	466
<i>Bing-Can Liu, Yong-Feng He, Qiang Tian</i>	
<b>Iterative Algorithms for System of Generalized Mixed Equilibrium Problems</b> .....	469
<i>Dianjiao Zhao, Yali Zhao</i>	
<b>Mobile Phone 3D Animation Plot Auto-generation Based on Ontology</b> .....	474
<i>Jinjuan Wang</i>	
<b>Research on Automatic First Break Picking Method in Seismic Data Processing</b> .....	479
<i>Rongxi Zhang</i>	
<b>Data Acquisition System Research Based on Mobile Agent in Network Management</b> .....	485
<i>Yan Li, Li Zhu</i>	
<b>Construction of Teaching Assisted Expert System in Engineering Training</b> .....	490
<i>Zhi-gang Zhang</i>	
<b>Improved Node Matrix Optimization Method of Test Points at Circuit Board</b> .....	494
<i>Feng-yu Li, Yu-kun Yan, Long-fe Zhang, Zhi Chen, Long-tao Liao, Kai Xiao</i>	
<b>Data Interface Design for Java-based Mysql Database</b> .....	498
<i>Hongxia Liu</i>	
<b>The Development of Date Mining System Based on Data Mining Algorithms of B/S Framework</b> .....	503
<i>Hongxia Liu</i>	
<b>Research on the TPE Biodegradable Biomedical Polymer Materials</b> .....	508
<i>Jing Jin</i>	

<b>Research of Interference Elimination Method in Pollution with Fluorescent Bacterial</b> .....	513
<i>Weiwei Jiang, Jinbao Shan</i>	
<b>Design and Implementation Analysis of University Online Resource System</b> .....	517
<i>Ke Zhang, Meng Yang</i>	
<b>Water Ecological Restoration Model Analysis on Chongqing's Polluted Reservoir</b> .....	522
<i>Jie Xiang</i>	
<b>Physical Analysis and Research Based on Data Mining</b> .....	527
<i>Xueqiang Zhu</i>	
<b>Image Technology of Display Design Based on Digital Multimedia Implementation</b> .....	532
<i>Xi Hu, Jing Li</i>	
<b>Expression of Norovirus Virus-like Particles in Different Systems</b> .....	537
<i>Xing-Jian Cheng, Yan-Ling Wu, Yoshimasa Tanaka, Wen Zhang</i>	
<b>The Researches on the Analysis of Medicinal Microbial Toxicity Spectral Curves</b> .....	541
<i>Wei-Hong Liu</i>	
<b>Analysis of the Planning Concept of Architectural Genius Loci</b> .....	545
<i>HongLiang Guo</i>	
<b>The Expert System for Goods Based on Supply Chain</b> .....	550
<i>Xiang-jie Niu, Hua Li</i>	
<b>Author Index</b>	