

International Conference on Computer Science and Information Technology 2011 (ICCSIT 2011)

Chengdu, China
10 – 12 June 2011

Editor:

Zhou Yanqun

ISBN: 978-1-5108-1124-9

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 International Association of Computer
Science & Information Technology (IACSIT)
All rights reserved.

Printed by Curran Associates, Inc. (2015)

For permission requests, please contact International Association of Computer
Science & Information Technology (IACSIT) at the address below.

IACSIT
c/o Dr. Jasmine Chew
#07-42, BLK 708, St. 71
Jurong West, Singapore 640708

Phone: +1-518-478-2659 (USA)

info@iacsit.org

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

Table of Contents

Preface	v
Organizing Committees	vii
ICCSIT 2011 Session 1	
Analysis on Visualization Technologies of Flow Calculation <i>Wenhua Liu, Chong Zhang, Zhendong Zheng and Lihua Chai</i>	1
An Improved Algorithm of BP Neural Network based on Genetic Clonal Selection Algorithm <i>He Quanbing, Fan Dongming, Wang Fei and Tang Yan</i>	9
A Study of Vibration Parameter Image for Rotating Machinery Based on Multi-scale Morphological Transformation Edge Detection Method <i>Xianzhang Su, Ying Zhang, Zhansheng Liu and Liyan Han</i>	14
An Optimal Transmit Power Allocation for Multiple-Access Relay Channel with Analog Network Coding <i>Mingfeng Zhao, Yajian Zhou and Yixian Yang</i>	21
A Medical Image Segmentation Based on Global Variational Level Set <i>WANG Yanwei, PAN Yanming, FENG Kejian and FENG Yukuan</i>	28
Research on the Application of ERP in Enterprises in the Information Age <i>Gu Guifang</i>	34
Path Planning for IMR in Unknown Environment: A Review <i>Qi Zhang, Jiachen Ma, Wei Xie and Qiang Liu</i>	38
Research and Improvement of Selection Algorithm Based on the H. 264 Intra-prediction Model <i>Xu Xiang and Duan Zhe-min</i>	45
The Research of Data Mining Based on Neural Networks <i>Guoquan Jiang and Cuijun Zhao</i>	51
Fast Algorithm of Parameters Estimation of High Speed Moving Target Based on Conjugate Gradients and Its Test <i>GAO Zhu</i>	56
ICCSIT 2011 Session 2	
A New Resource Allocation Algorithm in OFDM System <i>Liu Xiaolan, Yang Longxiang and Liu Xu</i>	62
Performance Analysis of System Outage Based on Network Coding in Mobile Satellite Communication System <i>Sun Wei, Zhang Gengxin and Jing Hu</i>	66
A Network Services Management Middleware Architecture Model <i>Zhongqiu Song, Zongshui Xiao and Fangfang Wu</i>	71
National Dances Protection Based on Motion Capture Technology <i>Yinghua Shen, Xiaoyu Wu, Chaohui Lü and Huanfa Cheng</i>	78
Computer Simulation of Ruthenium Complexes Molecules: Density Functional Theory Study of Ruthenium Tris Chelate Complexes <i>Peiyuan Li, Wei Su, Jianguo Cui, Lini Huo, Nana Guo and Yanmin Huang</i>	82
Designing of Interactive Stage Lighting Simulation <i>Yuhua Fang, Yinghua Shen and Chaohui Lü</i>	89
Research on Mode and Tendency of Web2.0-based Online Advertising	94

<i>Fu Dan and Liao Bingyi</i>	
Research on Technologies of File Security Label Management <i>Li Bian, Xingyuan Chen, Yunan Liu, Yongwei Wang and Wenchong Xie</i>	99
Micro twinbridge Catalytic LNG Gas Sensor Reliability Performance Analysis <i>Yu Li-Na, QIN Li and LIZHU</i>	107
Image Segmentation of Cerebrospinal Fluid Using a New Hybrid Level-Set Model <i>Jinghua Zhu and Ying Ju</i>	113
ICCSIT 2011 Session 3	
An Accurate Incremental Principal Component Analysis method with capacity of update and downdate <i>Wang Li, Chen Shuo and Wu Chengdong</i>	118
Fault Diagnosis of the Aeroengine Based on Neural Network and D-S Evidence Theory <i>WenJie Wu, DaGui HUANG and Zheng DONG</i>	124
Research on a novel high speed 33% CRZFSK modulation scheme <i>Jin Cai, Zhou He and Zhiyong Tao</i>	130
All-optical OOK label Swapping on 33% CRZFSK Payload in Optical Packet Networks <i>Fanjian Hu and Zhou He</i>	134
Eliminating Noisy Information in Webpage through Heuristic Rules <i>Xin Qi and JianPeng Sun</i>	137
Eco-efficiency Evaluation to Chinese Textile Mills <i>Weiling Dai, Qiong Xia, Feng Yang and Huaqing Wu</i>	142
Tracking Control Algorithm Model Design <i>Dingyuan Zhao</i>	147
A VSS-NLMS Algorithm Designed for DTMB On-Channel Repeater <i>Zhengping Liu, Wei Xia, Zishu He, Chang Liu and Jianlin Zhou</i>	151
A Construction Method of Binary Orthogonal Complementary Sequences Sets in MC-CDMA System <i>Chen Hong and Dai Qiang</i>	157
Analysis of Breast Thermography Based on Inside Thermal Estimation <i>Zhihong Chen, Guojun Ma and Bing Sun</i>	163
ICCSIT 2011 Session 4	
Researches on a Purchasing Office Location Problem <i>Na Wang and Dingwei Wang</i>	166
A Favorable Real Code Evolutionary Method for Multiple Criteria Problems <i>Wang Gang, Yu Long and Wang Junbo</i>	170
Exploring Cyber Opinion Leaders Based on Social Network Analysis: Sampling College Student Employment Public Opinion <i>Zhuozhuo Li and Zihan Ding</i>	177
A Novel High Code Rate Runlength Limited Coding Method for Magnetic Recording Channel <i>Chun Liu, Changsheng Xie, Guangxi Zhu and Qingdong Wang</i>	185
Optimization and Emulation Analysis on Sampling Model of Servo Burst—Signal in Read/Write Channel of Magnetic Storage <i>Qingdong Wang, Changsheng Xie, Dexiu Huang and Chun Liu</i>	191
The SWDAS Sensor for Stand-off Detection of Methane <i>Zhang Shuai, Liu Wen-qing, Zhang Yu-jun, Ruan Jun, Wang Li-ming, You Kun and Liu</i>	196

<i>Jian-guo</i>	
Research of Positioning Technique Based on Wireless LAN <i>Jiang-fan Feng and Qian Wang</i>	202
Avoiding Energy-hole in Wireless Sensor Networks with Hybrid Communication Model <i>Yongyi Liu, Siqing Yang and Huiyong Yuana</i>	208
Full Disk Encryption based on Virtual Machine and Key Recovery Scheme <i>Min Liang and Chao-wen Chang</i>	214
Super-resolution for Depth Maps <i>Cihui Yang, Hong Liu, Richard Green, Enmin Song and Meng Fan</i>	224
ICCSIT 2011 Session 5	
Formal Description of a Real-time Component <i>Qi Zhong-xia</i>	253
On Delay-Tolerant Networking and Its Application <i>Wei Sun, Congmin Liu and Dan Wang</i>	238
Map Building for Indoor Tracked Autonomous Mobile Robot with Laser Rangefinder and Electronic Compass <i>Zhu Jianguo, Gao Junyao, Li Kejie, Ren Peijie and Yin Qiang</i>	245
An Improved SIFT Feature Matching Algorithm Based on Maximizing Minimum Distance Cluster <i>Wang Kai, Cheng Bo and Tengfei Long</i>	255
A Method for Modeling Power Spatial Data Based on Object-Relational Model <i>Kehe Wu, Xuerong Xu, Xiaohui Wang and Yuhan Xu</i>	260
A Virtualization Model of Network Services Management <i>Fangfang Wu, Zongshui Xiao and Zhongqiu Song</i>	266
Research and Implementation of a Testing Method in Target Tracking Based on Multi-Radar Information Fusion <i>Wang Xiaoxuan, Wang Weimin and Diao Lianwang</i>	272
An Improved Micro Hard Disk Read-Write Channel Servo Signal Simulate System Design on FPGA <i>Qingdong Wang, Changsheng Xie, Dexiu Huang and Chun Liu</i>	278
A Distributed Storage Access System for Mass Data using 3-tier Architecture <i>Lannan Luo, Gang Sun and Wei Yu</i>	283
Prediction of Motion Trajectories Based on Markov Chains <i>Ling Gan and Li'na Su</i>	292
ICCSIT 2011 Session 6	
SAN Data Encryption System on iSCSI <i>Xu Xuedong, Sun Wei and Li Muyuan</i>	298
Research on Cross-domain Heterogeneous Resources Management Mechanism for Information Grid <i>WU Shan-shan</i>	304
Positive Solutions for P-Laplacian Discrete Boundary Value Problems via Three Critical Points Theorem <i>Benshi Zhu</i>	311
A Novel Incremental Learning Regularized Least Squares Support Vector Fuzzy Regression <i>Yuan jian and Chen yongqi</i>	317
Research on Offline Handwritten Chinese Character Recognition Based on BP Neural	323

Networks	
<i>Liangbin Zheng, Ruqi Chen and Xiaojin Cheng</i>	
An Approach to Generate Basis Path for Programs with Exception-Handling Constructs	330
<i>Qingtian Wang, Shujuan Jiang and Yanmei Zhang</i>	
Mini SerDes Based on Economic FPGA	336
<i>Zhuo Bi, Zhen Wang and Meihua Xu</i>	
The Clothing Quality Forecast Based on Rough Set	343
<i>Tao Wu, YuanShu Du, Yin Wang, Shousan Jiang and Xianbo Wang</i>	
Clustering Algorithm for Mixed Attributes Data Based on Restricted Particle Swarm Optimization	350
<i>Zhang Tiejun, Yang Jing and Zhang Jianpei</i>	
Adult Image Detection Using Wavelet Transform and Support Vector Machine	355
<i>Chun Liu, Changsheng Xie, Guangxi Zhu and Qingdong Wang</i>	
ICCSIT 2011 Session 7	
Research on the Petri net Model of System Interaction	361
<i>WANG Chun-xia, QIN Xian-sheng and LI Bo</i>	
Research on Fuzzy Neural Network Modeling and Genetic Algorithms Optimization in CNC Machine Tools Energy Saving	368
<i>Dong Xie, Jinliang Shi, Guorong Chen and Jianqu Zhu</i>	
An Adaptive Tracking Algorithm for Radar Target	375
<i>He Chenglong, Wang Xiaoxuan and Xie Bin</i>	
The Connection Control OF RRC Sub-layer Design and Simulation in LTE System	381
<i>Fatang Chen, Yang Chu and Zhen Wei</i>	
A Modified Phase Transmit Sequences Approach to Reduce PAPR in LTE System	389
<i>Xiaowen Li, Qianjun Fang and Jie You</i>	
Research and Solution of Semi-persistent Scheduling Problem in LTE System	395
<i>XiaoWen Li, ZiMing Yu and Zhen Wei</i>	
A Congestion Control Scheme for LTE/SAE	400
<i>Fang Cheng, Xiao-Fei Hang and Hong-Jiang Lei</i>	
A Research on More Effective Model of Deep Web Integration	406
<i>Hanmei Liu, Shitao Wan and Gang Liu</i>	
Research Query Translation Based on Ontology Technology and Schema Matching	413
<i>Gang Liu, Kai Liu and Yuan-yuan Dang</i>	
An Efficient Identity-based Ring Signcryption Scheme	418
<i>Sun Hua, Guo Li and Wang Aimin</i>	
ICCSIT 2011 Session 8	
The Split-Bregman-Projection Algorithm of a Variational Model for Multiphase Image Segmentation	422
<i>Cunliang Liu, Yongguo Zheng, Zhenkuan Pan and Guodong Wang</i>	
The Modelling and Verification of PLC Program Based on Interactive Theorem Proving Tool COQ	429
<i>Litian Xiao, Mengyuan Li, Ming Gu and Jiaguang Sun</i>	
Survey on Methods of Moving Object Video Detection in Marine Environment	437
<i>Ge Jing and Shi Chaojian</i>	
The Research of Ultrasonic Equipment Applied In Non-woven Welding	441
<i>Chen Wei and Li Suxun</i>	

The Rock Physical Phase Partition Method of Multilayer Sandstone Reservoir Based on Fuzzy Inference Networks <i>PAN JunHui and Wang Hui</i>	448
The Manipulability and Optimized Configuration of Tracked Mobile Manipulator <i>Pengmei Dong and Xinhua Zhao</i>	454
Linear Singular Blending T-B Spline Curve <i>Chengwei Wang</i>	460
A Method Based on Wavelet Packet Decomposition and Memory Antibody Clone Hybrid Clustering for Diagnosis of Clinical Heart Disorders <i>Ting Tao, Haibin Wang, Yu Fang, Jinqun Liu and Xiaochen Wu</i>	466
Implementation of Triangle Subdivision for Holding Sharp Features with Flatness Control <i>Wei Liu, Lizhu Wang and Lina Xu</i>	474
The Prediction Model of Coal Mine Disaster Based on BP Algorithm <i>Mao Zheng-li and Gao Song-feng</i>	482
ICCSIT 2011 Session 9	
Secure P2PSIP-based conference system with dynamic scalability <i>SHI Yuan-ying</i>	487
Design and implementation of a streaming media transmission system <i>Xiaoyu Ma and Rui Jin</i>	494
Research on Outer Join Optimization in Parallel DBMS <i>Juntao Li and Xiaoling Xia</i>	502
Simulation on Pressure Control of Common Rail Line in High Pressure Fuel Injection System <i>Wei Liu and Jun Wang</i>	508
Forming on Primary Control MAP Based on Fitting Surface with Scattered Data Point in Common Rail Diesel Engine <i>Jun Wang and Wei Liu</i>	515
Design of Coal Mine Comprehensive Parameters Monitoring System Based on DSP <i>Dong Yunhua and Zheng Xianfeng</i>	521
The Obtain and Utilization of The Grey Literature on Internet <i>Jing Gao</i>	526
Research on Duration Estimation of Ling Shan Tunnel Engineering <i>Yuexiao Gao and Wenjuan Zhao</i>	529
Establishment of Risk Evaluation Model by Analytic Hierarchy Process and Fuzzy Logic Theory <i>Zheng Tiana and Zhang Li</i>	535
The Innovation Design of Product Based on Reverse Engineering <i>Ling Sha</i>	542
ICCSIT 2011 Session 10	
Robust Image Segmentation Using FCM Based on New Kernel-Induced Distance Measure with Membership Constraints <i>Zhang Qinli, Zhai Xiuna, Yue Yafan, Bi Yajun, Nie Mingwei and Hong Lei</i>	546
Research on the Informatization Planning of the Coal Enterprise <i>Houbo Shi, Chan Liu and Lina Cao</i>	551
A New Computing Method of First and Follow Sets <i>Jing Zhang</i>	555
Research on Interest Model of User Behavior	562

<i>Yu Ye , Guowen Wu and Xin Luo</i>	
Data Preprocess of Target guidance in the Mobile ATP System <i>YANG Song-hua and MAO Yao</i>	568
The Power Marketing Information System Model Based on Cloud Computing <i>Liwei Wang and Xiaoqiong Wang</i>	573
Improvement of Centroid Location Algorithm for Wireless Sensor Networks <i>Xueli Shen and Huan Zhang</i>	579
The Research of Using Hash Algorithm to Protect Classified Document <i>Wang Heng, Yu Xingchen, Chang Jingjing, Yao Heng and Wang Xinkai</i>	584
Study on the DQPSK Demodulation Method based on Virtual Radio <i>Chen yuan, Hou Xiao-min, Zheng Hai-xin and Wang Yuan-qin</i>	587
Toward a Meta-model Driven Knowledge Repository for Ship Collaborative Design <i>Ren Hongmin, Yang Yongsheng and Liu Jin</i>	595
ICCSIT 2011 Session 11	
Improvement on Multicast Routing Protocol ODMRP Based on Path Stability <i>Yang Yang and Cao Jie</i>	601
Instructing Advanced English with Foregrounding Model via Network Platform <i>Zhao Lijuan</i>	607
Research on Congestion Management in Delay-Tolerant Networks <i>Wei Sun, Qingbo Liu and Kangkang Li</i>	612
Real-time Path Planning In Completely Unknown Environment for UAV <i>Qin Fan</i>	619
The Research on Confirmation of Jurisdiction in Network Infringement Cases <i>Lan Yu, Jun Chen and Xianggui Zhu</i>	624
A novel envelope extraction method for multichannel heart sounds signal detection <i>Jinqun Liu, Wuchang Liu, Haibin Wang, Ting Tao and Jinbao Zhang</i>	630
A High-Resolution Hybrid DPWM Circuit for Digitally Controlled Buck Converter in 0.13 μ m CMOS Process <i>Xiao MA, Ping LUO, Ye ZHANG and Shaowei ZHEN</i>	639
ArcSDE vector model analysis and vector SDE realization <i>Wang Yun-fei and Yan Hong-yu</i>	647
Research on Cisco IOS Security Mechanisms <i>Xiaoyan Su, Dongying Wu, Da Xiao and Yuxiang Han</i>	653
Study on Automatically Plotting Contours Method Based on MapInfo and Surfer <i>HOU Yan-hui, HAO Min, WANG Wei, YUE Hong-tao and DING Yong-jun</i>	661
ICCSIT 2011 Session 12	
Study and Simulation of Emulsion Pump Pressure Controller Based on Fuzzy-immune PID Algorithm <i>LIU Chang and LIAN Zi-sheng</i>	666
Face Video Key-Frame Extraction Algorithm Based on Color Histogram <i>Xintao Li and Tiongrong Xu</i>	670
Executable Petri Nets Model for Semantic Web Services <i>Xu Yinglei and Ma Bingxian</i>	677
Research on the Processes and Strategic Points of SOA Project Implementation <i>Baoan Li and Xuqiang Lu</i>	681

Research On Active Object Data Association Mining Technology Based on Surveillance Video <i>Yujie Zheng</i>	689
Estimation of BPSK Carrier Frequency Based on the High-Order Cyclic Cumulants <i>Liu Liangkai, Cheng Jian, Li Yongtao and Liu Tao</i>	695
A Fast Method for Community Detection Based on the Contribution of Nodes <i>Xiangtao Chen and Houwang Xing</i>	701
Data Storage Framework on Flash Memory using Object-based Storage Model <i>LIN Wei, ZHANG Yan-yuan and LI Zhan-huai</i>	708
Design and Implementation of Lookup Table in Multicast Supported Router <i>Wenmin Hu, Hengzhu Liu, Zhonghai Lu and Axel Jantschb</i>	713
A Palmprint Recognition Method Using LS-SVM Based on Finite Ridgelet Transform <i>Wen-Jun Huai and Li Shang</i>	720
ICCSIT 2011 Session 13	
3G Technology in the Wireless Communications <i>Xin-Yu Sun and Wei Zhao</i>	725
Binaural multiple sources localization with extracting high local SNR frequencies based on cepstrum <i>Mengqi Ren, Yuexian Zou, Hong Liu and Bo Li</i>	729
A Game Theoretic Model of Spam E-Mailing <i>ZHAO Jie, LIAO dabao and ZHENG jiasheng</i>	735
Radio Frequencies Explosive Magnetic Flux Compression Generator and Its Military Applications <i>Han Yingchao, Li Hongmei and Qiu Jinghui</i>	740
An Improved Prediction Tree Compression Applied on Hyperspectral Image <i>Wang Lang and Fan Shengli</i>	747
Meta-Model Based Methodology of C4ISR System Architecture Development <i>XIE Wencai□ , LUO Xueshan and HUANGFU Xianpeng</i>	754
An Investigation on Learning of College Students and the Current Application Situation of the Web-based Courses <i>Ding Aixia and Dan Wang</i>	761
Network Sharing Mechanism of Disk Images: A Multicast-based Research and Implementation <i>Zhou Xiangyang, Jiang Xiangtao and Hou Yi</i>	767
Extracting Language Strings from XML Based on Android <i>Cheng Chen□ , Li Liu, Jianguo Chen and Cheng Zhang</i>	775
Application of Apriori Algorithm in Open Experiment <i>Li Mengshan□ , Liu Bingxiang and Wu Yan</i>	781
ICCSIT 2011 Session 14	
Research on Detection Performance in Laser Ranging System <i>Ming Lei□ , Hong Li, Zhiyong Lei and Xing Liu</i>	786
A Method of Testing Integrated Operational Amplifier Gain Characteristics <i>Peng Xiao-hong, Zhu Zhi-ding□ , Li Xiao-qing, Lv Ben-qiang and Dong Li-min</i>	792
Exploration on Affecting Performance Results of Nios II <i>Peng Xiao-hong, Ma Meng-ya□ , Hou Li-gang, Wang Jin-hui and Wu Wu-chen</i>	799
The Theory and Implementation of Gain Test for Operational Amplifiers	805

<i>Peng Xiao-hong, Li Xiao-qing</i> □ , <i>Dong Li-min, Geng Shu-qin and Wu Wu-chen</i>	
A Design of Embedded Serial Communication Program Based on MiniGUI <i>Wu Xin-yi</i> □ , <i>Peng Xiao-hong, Hou Li-gang, He Ming and Wu Wu-chen</i>	811
The Layout Design and Optimization of A Low Dropout Regulator <i>Peng Xiao-hong, Lv Ben-qiang</i> □ , <i>Li Xiao-qing, Zhu Zhi-ding and Dong Li-min</i>	817
The Physical Design of Long Time Delay-chip <i>Peng Xiao-hong, Cai Yi-jie</i> □ , <i>Hou Li-gang, Geng Shu-qin and Dong Li-min</i>	822
A Short-term foF2 Forecasting Method Using A Support Vector Machine Technique <i>Chun Chen</i> □ , <i>Shuji Sun and Panpan Ban</i>	827
Study on Monitoring System for Pipeline Security Based on Multi-sensor Data Fusion Technique <i>Zhang Jie, Yang Zhao and Zhou Tong</i>	832
Harmonic Distortion Modeling of Fully-Balanced Third-order Butterworth Gm-C Filter by a Block Diagram Approach <i>Yingwu Miao and Yuxing Zhang</i>	837