

ISSN1000-3428
CN31-1289/TP
CODEN JISGEV

计算机工程

Computer Engineering

www.ecice06.com

第39卷 - 第6期 - 2013年6月15日

Vol.39 - No.6 - 15 June 2013

2013 06

■中科院CSCD核心期刊

■中国科技核心期刊

■RCCSE中国核心学术期刊

■工业和信息化部精品期刊



华东计算技术研究所
上海市计算机学会 主办

计算机工程(月刊)

Jisuanji Gongcheng

第39卷 第6期 2013年6月15日

目 次

• 专栏 •

- 基于近场通信的 WiFi 传输连接方案..... 马捷, 鄂金龙(1)
面向社交网络的智能通信平台研究..... 宋飞, 翟建伟, 张思东, 等(7)
面向软件逆向工程的 GLR 优化算法..... 许福, 金茂忠, 陈志泊, 等(12)
基于云计算架构的网络入侵协同预警技术..... 许佳, 苏璞睿, 符易阳(21)
基于压缩感知的 CoSaMP 算法自适应性改进..... 闫鹏, 王阿川(28)
一种基于加权投票的图像匹配改进方法..... 张丽丽, 罗斌, 汤进, 等(34)
不可见水印的透明性评价..... 马苗, 曾晴, 邵利平(38)

• 先进计算与数据处理 •

- Hadoop 平台下的并行 Web 日志挖掘算法..... 周诗慧, 殷建(43)
动态社会网络中的社区演变挖掘..... 蔡丽, 王红, 马兴福(47)
一种基于同心圆切割的 XML 编码方案..... 郭丽红, 王箭, 杜贺(52)
云计算环境下基于时间期限和预算的调度算法..... 刘亚秋, 邢乐乐, 景维鹏(56)
列数据库的 SQL 查询语句编译与优化..... 甄真, 陈虎, 张林亚(60)

• 体系结构与软件技术 •

- SCA 型高速通用数字信号处理模块设计..... 范冬荣, 张道萍, 柴小丽, 等(66)
一种交叉口信号配时辅助软件的设计与实现..... 谌华金, 张雷元, 树爱兵(72)
一种自适应的循环不变式生成方法..... 刘自恒, 曾庆凯(76)
计费系统负载模型的研究与应用..... 徐健(82)
基于结点匹配策略的赋权超图核值实验比较..... 冷明, 孙凌宇, 朱平, 等(85)
一种低延迟高吞吐率的浮点整型乘累加单元..... 沈俊, 沈海斌, 虞玉龙(91)

• 移动互联与通信技术 •

- 用于评价通信网节点重要性的多参数优化算法..... 张品, 董志远, 沈政(95)
一种 LEACH 协议的多级分簇改进算法..... 罗冰, 黄玉清(99)
基于博奔论的多媒体传感器网络 MAC 协议..... 曾晓丽, 胡伟, 曹海, 等(103)
兼容弱连通簇的 Ad Hoc 网络分簇算法..... 肖磊, 符云清, 钟明洋, 等(107)
一种 802.11e EDCA 机制的优化算法..... 王鹭, 蒋阳, 郎保才, 等(111)
基于遗传算法的多信道无线网络信道分配方案..... 刘耀中, 余旭涛(115)
Ad Hoc 网络中基于信用的自私节点检测系统..... 张华鹏, 张宏斌, 葛娟, 等(119)
基于双转发机制的车载自组织网络路由算法..... 夏荣大, 刘春风, 赵增华, 等(124)
基于区域控制的低功耗自适应聚类路由协议..... 陈锡剑, 程良伦(129)
基于分享度的最小连通支配集求解算法..... 赵学锋, 陈祥恩(134)
基于比例公平的下行联合分组调度算法..... 杨本臣, 汪洋(138)

• 安全技术 •

- 基于物理不可克隆函数的 RFID 双向认证..... 寇红召, 张紫楠, 马骏(142)

基于 McEliece 公钥密码体制的盲签名算法	赵程程, 杨亚涛, 李子臣, 等(146)
一种针对 RSA 抗侧信道攻击的改进窗口算法	赵跃华, 赵加, 韩牟(150)
基于哈希树和有限状态机的 XSS 检测模型	曹文, 郭帆, 余敏, 等(154)
基于 Agent 的 DDoS 协同防御实体行为建模	揣迎才, 张明清, 唐俊, 等(158)
基于向量正交性的组播密钥管理方案	王静, 马方明(162)
基于双线性对的高效不经意传输协议	徐彦蛟, 李顺东, 陈振华(166)
一种基于分组密码的自同步序列密码模型	罗芳, 欧庆于, 付伟(170)
一种改进的三方认证密钥协商协议	唐祚波, 缪祥华(174)
具有特定合作者的门限代理签名方案	王天成, 张建中(177)
旋转鲁棒的图像复制粘贴伪造快速取证检测	刘勇, 林柏钢(181)
基于位平面变换的数字图像加密算法	任洪娥, 戴琳琳, 张健(185)
基于本地快照和 Rsync 算法的 Web 文件保护	何倩, 赵帮, 王勇, 等(190)
一种用于版权保护的压缩域视频水印算法	邢玲, 高宝建, 王玉洁, 等(194)
一种 ABAC 静态策略冲突检测算法	刘江, 张红旗, 代向东, 等(200)
基于 LSBMR 图像边缘自适应隐写的检测	张艳, 叶学义, 汪云路, 等(205)
基于同态哈希函数的隐私保护性公钥审计算法	牛淑芬, 王彩芬, 杜小妮, 等(210)
· 人工智能及识别技术 ·	
一种基于区域分割的地面飞机目标识别方法	王威, 李元垒, 梁方, 等(214)
双足机器人跟踪误差在线修正方法	张世龙, 刘国栋(219)
A-SMGCS 中的航迹关联设计与实现	卢宇, 吴宏刚, 朱盼(223)
基于流场与劳伦级数的指纹奇异点检测算法	彭可, 刘琴, 刘巍, 等(227)
Lab 颜色空间中基于动态聚类的颜色分级	任洪娥, 白杰云(231)
基于特定局部特征布局的视频运动目标挖掘	马超, 沈微, 董景峰(236)
基于亮度累加直方图的夜间车辆检测算法	孙晓艳, 王健, 王建强, 等(239)
高密度细胞复杂运动的并行跟踪算法	郭巾铭, 李辉, 杨风雷(244)
蚁群算法优化神经网络的零点误差非线性校正	吴文铁, 宋曰聪, 李敏(247)
基于 Flou 集的模糊区域拓扑关系度量	陈黎明, 郭嗣琮, 毕玲玲(251)
基于 K 近邻互信息估计的 EEG 伪迹消除方法	何海洋, 罗志增(255)
基于方向边缘匹配的人行横道与停止线检测	谢锦, 蔡自兴, 李昭, 等(261)
基于 HMM 的京剧机构命名实体识别算法	乐娟, 赵玺(266)
· 图形图像处理 ·	
基于多方向复支持度变换的多聚焦图像融合	胡德恒, 张澜, 尚赵伟(272)
基于 CCA 子空间和 GMM 的自动图像标注	郭玉堂, 韩昌刚(277)
基于改进水平集的人脑海马图像分割方法	于广婷, 李柏林, 邹翊, 等(283)
一种基于尺度最优的极线校正优化方法	刘仁峰, 周华兵, 田金文(287)
无损压缩中基于块的梯度预测模式	王春洁, 沈燕飞, 卢毓海, 等(290)
基于 Mirror Driver 的屏幕图像捕捉技术	周恕义, 陈圣奇, 贺玉虎, 等(295)
· 开发研究与工程应用 ·	
基于光栅相位偏折的高反射曲面三维形貌测量	李绍辉, 刘书桂, 张宏伟, 等(299)
新能源汽车远程监控系统压力测试方法研究	张新丰, 沈勇, 章桐, 等(304)
基于元数据的检测与校准业务信息系统	袁普及, 王成, 黄凌凡(308)
基于 Android 手机的智能轮椅室外导航方法	罗元, 孔维熙, 张毅(312)
基于结点间距离统计的无向无权图同构判别	陈伟平, 战荫伟(316)
实时 SAR 成像系统矩阵原位转置的实现	林桐, 谢宜壮, 刘伟(319)

Computer Engineering (Monthly)

Vol.39 No.6

15 June 2013

Contents

WiFi Transmission Connection Scheme Based on Near Field Communication.....	MA Jie, E Jin-long(1)
Research on Social Network Oriented Intelligent Communication Platform.....	SONG Fei, ZHAI Jian-wei, ZHANG Si-dong, et al(7)
Optimized GLR Algorithm for Software Reverse Engineering.....	XU Fu, JIN Mao-zhong, CHEN Zhi-bo, et al(12)
Collaborative Warning Technology Against Network Intrusions Based on Cloud Computing Architecture.....	XU Jia, SU Pu-rui, FU Yi-yang(21)
Adaptivity Improvement of CoSaMP Algorithm Based on Compressive Sensing.....	YAN Peng, WANG A-chuan(28)
An Improved Image Matching Method Based on Weighted Voting.....	ZHANG Li-li, LUO Bin, TANG Jin, et al(34)
Imperceptibility Evaluation for Invisible Watermarking.....	MA Miao, ZENG Qing, SHAO Li-ping(38)
Parallel Web Log Mining Algorithm in Hadoop Platform.....	ZHOU Shi-hui, YIN Jian(43)
Community Evolution Mining in Dynamic Social Network.....	ZANG Li, WANG Hong, MA Xing-fu(47)
An XML Encoding Scheme Based on Concentric Circular Cutting.....	GUO Li-hong, WANG Jian, DU He(52)
Schedule Algorithm Based on Deadline and Budget Under Cloud Computing Environment.....	LIU Ya-qi, XING Le-le, JING Wei-peng(56)
Compilation and Optimization of SQL Query Statements on Column-oriented Database.....	ZHEN Zhen, CHEN Hu, ZHANG Lin-ya(60)
Design of SCA High-speed General Digital Signal Processing Module.....	GOU Dong-rong, ZHANG Dao-ping, CHAI Xiao-li, et al(66)
Design and Implementation of An Intersection Signal Timing Assistant Software.....	CHEN Hua-jin, ZHANG Lei-yuan, SHU Ai-bing(72)
An Adaptive Loop Invariant Generation Approach.....	LIU Zi-heng, ZENG Qing-kai(76)
Research and Application on Load Model of Billing System.....	XU Jian(82)
Experiment Comparison of Weighted Hypergraph Core Based on Node Matching Strategies.....	LENG Ming, SUN Ling-yu, ZHU Ping, et al(85)
A Low Latency High Throughput Multiply-accumulator Unit for Float Point and Integer.....	SHEN Jun, SHEN Hai-bin, YU Yu-long(91)
Multi-parameter Optimization Algorithm for Communication Network Node Importance Evaluation.....	ZHANG Pin, DONG Zhi-yuan, SHEN Zheng(95)
An Improved Multistage Clustering Algorithm of LEACH Protocol.....	LUO Bing, HUANG Yu-qing(99)
MAC Protocol for Multimedia Sensor Network Based on Game Theory.....	ZENG Xiao-li, HU Wei, CAO Hai, et al(103)
Clustering Algorithm for Ad Hoc Network Compatible with Weak Connection Cluster.....	XIAO Lei, FU Yun-qing, ZHONG Ming-yang, et al(107)
An Optimization Algorithm for 802.11e EDCA Mechanism.....	WANG Lu, JIANG Yang, LANG Bao-cai, et al(111)
Channel Allocation Scheme of Multi-channel Wireless Network Based on Genetic Algorithm.....	LIU Yao-zhong, YU Xu-tao(115)
Selfish Node Detection System Based on Credit in Ad Hoc Network.....	ZHANG Hua-peng, ZHANG Hong-bin, GE Juan, et al(119)
Routing Algorithm for Vehicular Ad Hoc Network Based on Double Forwarding Mechanism.....	XIA Rong-da, LIU Chun-feng, ZHAO Zeng-hua, et al(124)
Low Energy Consumption Adaptive Clustering Routing Protocol Based on Zone Control.....	CHEN Xi-jian, CHENG Liang-lun(129)
Minimum Connected Dominating Set Solution Algorithm Based on Share Degree.....	ZHAO Xue-feng, CHEN Xiang-en(134)
Downlink Combination Grouping Schedule Algorithm Based on Proportional Fair.....	YANG Ben-chen, WANG Yang(138)
RFID Mutual Authentication Based on Physical Unclonable Function.....	KOU Hong-zhao, ZHANG Zi-nan, MA Jun(142)
Blind Signature Algorithm Based on McEliece Public Key Cryptography.....	ZHAO Cheng-cheng, YANG Ya-tao, LI Zi-chen, et al(146)
An Improved Window Algorithm for RSA Against Side Channel Attack.....	ZHAO Yue-hua, ZHAO Jia, HAN Mu(150)
XSS Detection Model Based on Hash Tree and Finite State Machine.....	CAO Wen, GUO Fan, YU Min, et al(154)

Behavior Modeling of DDoS Collaborative Defense Entity Based on Agent.....	CHUAI Ying-cai, ZHANG Ming-qing, TANG Jun, et al(158)
Multicast Key Management Scheme Based on Orthogonality of Vector.....	WANG Jing, MA Fang-ming(162)
Efficient Oblivious Transfer Protocol Based on Bilinear Pairing.....	XU Yan-jiao, LI Shun-dong, CHEN Zhen-hua(166)
A Self-synchronous Stream Cipher Model Based on Block Cipher.....	LUO Fang, OU Qing-yu, FU Wei(170)
An Improved Three-party Authenticated Key Agreement Protocol.....	TANG Zuo-bo, MIAO Xiang-hua(174)
Threshold Proxy Signature Scheme with Specified Signature Folder.....	WANG Tian-cheng, ZHANG Jian-zhong(177)
Fast Evidence Obtain Detection of Rotation Robust Image Copy Move Forgery.....	LIU Yong, LIN Bo-gang(181)
Digital Image Encryption Algorithm Based on Bit-plane Transformation.....	REN Hong-e, DAI Lin-lin, ZHANG Jian(185)
Web File Protection Based on Local Snapshot and Rsync Algorithm.....	HE Qian, ZHAO Bang, WANG Yong, et al(190)
A Compressed Domain Video Watermark Algorithm for Copyright Protection.....	XING Ling, GAO Bao-jian, WANG Yu-jie, et al(194)
A Static Policy Conflict Detection Algorithm for Attribute Based Access Control.....	LIU Jiang, ZHANG Hong-qi, DAI Xiang-dong, et al(200)
Detection for Edge Adaptive Image Steganography Based on LSBMR.....	ZHANG Yan, YE Xue-yi, WANG Yun-lu, et al(205)
Privacy Protectiveness Public Key Auditing Algorithm Based on Homomorphic Hash Function.....	NIU Shu-fen, WANG Cai-fen, DU Xiao-ni, et al(210)
A Ground Aircraft Target Recognition Method Based on Region Segmentation.....	WANG Wei, LI Yuan-lei, LIAO Fang, et al(214)
Online Tracking Error Correction Method for Biped Robot.....	ZHANG Shi-long, LIU Guo-dong(219)
Design and Implementation of Trajectory Correlation in A-SMGCS.....	LU Yu, WU Hong-gang, ZHU Pan(223)
Fingerprint Singular Points Detection Algorithm Based on Flow Field and Laurent Series.....	PENG Ke, LIU Qin, LIU Wei, et al(227)
Color Grading Based on Dynamic Clustering in Lab Color Space.....	REN Hong-e, BAI Jie-yun(231)
Video Moving Objects Mining Based on Distinctive Local Feature Configuration.....	MA Chao, SHEN Wei, DONG Jing-feng(236)
Nighttime Vehicle Detection Algorithm Based on Brightness Cumulative Histogram.....	SUN Xiao-yan, WANG Jian, WANG Jian-qiang, et al(239)
Parallel Tracking Algorithm of High-density Cell Complex Movement.....	GUO Jin-ming, LI Hui, YANG Feng-lei(244)
Zero Error Nonlinear Correction of Neural Network Optimized by Ant Colony Optimization Algorithm.....	WU Wen-tie, SONG Yue-cong, LI Min(247)
Topological Relation Metric of Fuzzy Regions Based on Flou Set.....	CHEN Li-ming, GUO Si-cong, BI Ling-ling(251)
EEG Artifacts Removal Method Based on K-nearest Neighbors Mutual Information Estimation.....	HE Hai-yang, LUO Zhi-zeng(255)
Pedestrian Crossing and Stop Line Detection Based on Oriented-edge Match.....	XIE Jin, CAI Zi-xing, LI Zhao, et al(261)
Algorithm of Beijing Opera Organization Names Entity Recognition Based on HMM.....	LE Juan, ZHAO Xi(266)
Multi-focus Image Fusion Based on Multi-directional Complex Support Value Transform.....	HU De-heng, ZHANG Lan, SHANG Zhao-wei(272)
Automatic Image Annotation Based on CCA Subspace and GMM.....	GUO Yu-tang, HAN Chang-gang(277)
Segmentation Method for Human Hippocampus Image Based on Improved Level Set.....	YU Guang-ting, LI Bai-lin, ZOU Ling, et al(283)
An Optimization Method of Epipolar Rectification Based on Optimal Scale.....	LIU Ren-feng, ZHOU Hua-bing, TIAN Jin-wen(287)
Gradient-adjusted Prediction Mode of Lossless Compression Based on Block.....	WANG Chun-jie, SHEN Yan-fei, LU Yu-hai, et al(290)
Screen Image Capture Technology Based on Mirror Driver.....	ZHOU Shu-ji, CHEN Sheng-qi, HE Yu-hu, et al(295)
Three Dimensional Shape Measurement of Specular Surface Based on Phase Deflectometry.....	LI Shao-hui, LIU Shu-gui, ZHANG Hong-wei, et al(299)
Study on Stress Test Method of Clean Energy Automobile Remote Monitoring System.....	ZHANG Xin-feng, SHEN Yong, ZHANG Tong, et al(304)
Information System of Detection and Calibration Business Based on Metadata.....	YUAN Pu-ji, WANG Cheng, HUANG Ling-fan(308)
Intelligent Wheelchair Outdoor Navigation Method Based on Android Mobile Phone.....	LUO Yuan, KONG Wei-xi, ZHANG Yi(312)
Undirected and Unweighted Graph Isomorphism Determination Based on Distance Statistics of Vertices.....	CHEN Wei-ping, ZHAN Yin-wei(316)
Implementation of Matrix In-place Transpose for Real-time SAR Imaging System.....	LIN Tong, XIE Yi-zhuang, LIU Wei(319)