

- ❖ 英国《科学文摘》(INSPEC)来源期刊
- ❖ 俄罗斯《文摘杂志》(AJ)来源期刊
- ❖ 美国《乌利希期刊指南(网络版)》(Ulrichsweb)收录期刊
- ❖ 第二届国家期刊奖百种重点科技期刊
- ❖ 中国科技核心期刊 ❖ 全国中文核心期刊
- ❖ 中国科技论文统计源期刊
- ❖ 中国学术期刊综合评价数据库来源期刊
- ❖ RCCSE 核心学术期刊 ❖ 中国期刊方阵双效期刊
- ❖ 《中国工程技术电子信息网》来源期刊
- ❖ 《日本科学技术振兴机构数据库》(JST)来源期刊
- ❖ 美国《史蒂芬斯数据库》(EBSCOhost)全文来源期刊
- ❖ 美国《剑桥科学文摘(自然科学)》(CSA(NS))来源期刊
- ❖ 波兰《哥白尼索引》(IC)来源期刊
- ❖ 中国科学引文数据库来源期刊
- ❖ 《中文科技期刊数据库》来源期刊
- ❖ 《中国期刊网》《中国学术期刊(光盘版)》来源期刊
- ❖ 台湾《中文电子期刊服务(CEPS)资料库》全文收录期刊
- ❖ 《电子科技文献数据库》来源期刊

# 计算机应用研究

## Jisuanji Yingyong Yanjiu

### 第31卷 第3期 2014年3月

### 目 次

#### 综述评论

- |                            |                          |
|----------------------------|--------------------------|
| 网域空间电子身份管理方案研究 .....       | 韩冀中,李凤华,薛晓芸,万 盛(641)     |
| 无线传感器与执行器网络中协同通信研究综述 ..... | 杨 杰,冯 勇,郑雄奇,卢志强(645)     |
| 微处理器可靠性 AVF 评估方法研究综述 ..... | 唐 柳,黄樟钦,侯义斌,方凤才,张会兵(651) |

#### 算法研究探讨

- |  |                          |
|--|--------------------------|
| 计算排序算法设计与分析 .....                        | 杨绣丞,李 彤,赵 娜,梁利刚,李 超(658) |
| 人工鱼群—粒子群混合算法优化进港航班排序 .....               | 袁 野,杨红雨,羽 翼,王世豪(663)     |
| 公平席位分配问题在遗传选择操作中的应用 .....                | 王 成,于 菲,缑 锦(667)         |
| 基于改进混沌粒子群的混合核 SVM 参数优化及应用 .....          | 匡芳君,徐蔚鸿,张思扬(671)         |
| 一种改进的多目标粒子群优化算法及其应用 .....                | 冯金芝,陈 兴,郑松林(675)         |
| 求解工程结构优化问题的改进布谷鸟搜索算法 .....               | 陈 乐,龙 文(679)             |
| 基于绝对贪心和预期效率的 0-1 背包问题优化 .....            | 史 岚,张义宏,吕建辉(684)         |
| 一种基于小波变换和 ARIMA 的短期电价混合预测模型 .....        | 牛丽肖,王正方,臧传治,尚文利,张盛山(688) |
| 旅游客流量预测:基于季节调整的 PSO-SVR 模型研究 .....       | 翁钢民,李凌雁(692)             |
| 面向在线社区用户的群体推荐算法研究 .....                  | 郭均鹏,赵梦楠(696)             |
| 基于隐主题分析的中文微博话题发现 .....                   | 史剑虹,陈兴蜀,王文贤(700)         |
| Hadoop 平台的多队列作业调度优化方法研究 .....            | 李春艳,何一舟,戴 彬(705)         |
| 基于约束得分的动态集成选择算法 .....                    | 陈 睿,黄曙光,黄 雯,张 亮(708)     |
| 最大距离法选取初始簇中心的 K-means 文本聚类算法的研究 .....    | 翟东海,鱼 江,高 飞,于 磊,丁 锋(713) |
| 压缩 UF-tree 挖掘不确定数据频繁项 .....              | 陈超泉,黄佳欢,江云辉(716)         |
| 基于 DBLP 数据的多维异质网络 Graph OLAP 设计与实现 ..... | 邵连龙,尹 沐(720)             |
| 一种不确定数据集上频繁模式挖掘的近似算法 .....               | 王 水,祝孔涛,王 乐(725)         |
| 基于数据重构的宽带相干源 MVDR 算法 .....               | 卞红雨,王璐琳(729)             |
| 基于属性集合幂集的区间概念格 $L_a^p$ 的渐进式生成算法 .....    | 张春英,王立亚(731)             |
| 楼道消失点查找与跟踪的迭代算法 .....                    | 张 强,王恒升(735)             |
| 高速以太网中实时相似性匹配算法的研究 .....                 | 颜 轼,陈 健,郑 玥,曹炳尧(739)     |
| 一种网络社团划分的评价及改进方法 .....                   | 武 澄,王恒山(744)             |
| 丹顶鹤繁殖地气候数据特征的聚类分析 .....                  | 彭丽潭,晏寒冰,唐旭清(747)         |
| 基于小波熵自适应阈值的语音信号去噪新方法 .....               | 陈晓娟,王文婷,贾明超,宋 娜(753)     |
| 基于移动网络信令的区域人群属性分析的研究与应用 .....            | 沈 泽,雒江涛,周云峰,林举厅,舒忠玲(756) |
| 图的点可区别边染色算法研究 .....                      | 李敬文,张云寒,陈志鹏,孙 亮(760)     |
| 一种不确定连续时间序列的 Top-K 异常检测算法 .....          | 孟凡荣,姚彦旭,常玉虎,闫秋艳(765)     |
| 基于模糊理论的主观信任评价模型的研究 .....                 | 孙光华,甘 刚(769)             |

#### 系统应用开发

- |                       |              |
|-----------------------|--------------|
| 第三方互联网支付平台的盈利分析 ..... | 杨 玲,帅青红(773) |
|-----------------------|--------------|

基于移动网络信令数据的实时人流量统计方法	吴松,雒江涛,周云峰,林举厅,舒忠玲(776)
基于 IMM 的大尺寸回转零件动态位置检测方法	谷文韬,冯新,李洲洋,周少伟(780)
云计算下的多源信息资源云体系及云服务模型研究	王笑宇,程良伦(784)
基于 RKNN 的选址算法及其应用研究	许景科,孙焕良,刘天波,于戈(789)
基于贝叶斯信念网络的话题识别模型	吴树芳,徐建民,孙晓磊(792)
基于复杂网络的路网交通拥堵评估仿真模型	杨柳青,宗刚,柳应华(796)
交叉口车辆左转避撞行为建模与仿真	贺冰花,安毅生,赵祥模,尚龙华(801)
灾后应急物资保障的多目标定位一联运模型	陈刚,张锦(804)
融合社会网络与信任度的个性化推荐方法研究	李慧,马小平,胡云,施珺(808)

#### 信息安全技术

基于关联性的漏洞评估方法	张凤荔,冯波(811)
基于模糊理论的漏洞危害等级评估	马驰,高岭,孙骞,何林,高学玲(815)
基于信息增益比例约束的数据匿名方法及其评估机制	熊平,朱天清,顾霄(819)
高效的格上基于身份的签名方案	李明祥,刘阳,赵秀明(825)
辅助量子比特驱动型通用量子计算	杨宸,李顺东,薛丹(829)
二维多层次的云服务可靠性评估方法研究	刘颖,潘宁,焦阳(832)
基于磁盘冗余空间的数据隐藏	姜子峰,曾光裕,王炜,牛小鹏(839)
轻量级 PRESENT 加密算法功耗攻击研究	李浪,李仁发,李肯立,王奕,焦铬,邹祎(843)
基于图像相邻像素相关性的 LSB 匹配隐写分析	吴松,张敏情,雷雨(846)
一种大嵌入容量的可逆数据隐藏方法	邱应强(850)
DES 和 SM4 算法的可重构研究与实现	吴筱,郭培源,何多多(853)

#### 网络与通信技术

社会感知多副本车载自组织网络机会路由协议	孙海峰,罗光春,秦科(857)
带速度控制的能量高效的数据收集算法	刘瑞超,郭松涛(860)
无线传感网中生命最大化的泛在数据收集协议	陈燕,张尚尚,梁俊斌,吴文康(866)
一种适用于 Ad hoc 网络的基于概率负载均衡算法	王华东,侯燕,王凤春(872)
一种适用于 NLOS 环境的 LTE 终端迭代定位算法	阎龙,高泽华,高峰(876)
一种支持服务关联的 Web 服务选择方法	韩露,潘善亮,何静(879)
下一代光接入网络上安全的多虚拟专网构建机制	李燕,常相茂,马福民(884)
一种传输能量固定的数据聚集调度近似算法	刘文彬,杨波,李香宝,文志强(888)
WSN 中一种基于混合 CS 的分簇数据收集方案	师东生(892)
多变量权衡覆盖网络拓扑建模	刘媛妮,唐红,赵国锋(898)
失真容忍无线传感网络中的最优传感器配置研究	罗侃,王华(901)
基于虚拟势场的有向传感器网络覆盖优化算法	戴宁,毛剑琳,付丽霞,段绍米,乔冠华(905)
基于安全性能接口的调度和管理模型研究	陈斌,张蕾(908)
移动云计算中基于协作式博弈模型的资源分配方案	朱匆,刘元君,彭自然,刘明(912)

#### 图形图像技术

快速眼动信息识别算法研究	倪怡雯,穆平安,戴曙光(917)
结合空间显著性的融合单演二元模式面部情感分类	王凯,刘甲甲,江晓亮,袁建英,熊鹰,李柏林(921)
目标相似性度量的鬼影抑制方法	李晓娟,李佳田,何育枫(926)
基于压缩感知的多特征加权目标跟踪算法	王松林,项欣光(929)
一种基于颜色空间最短距离的编码误差修正新方法	李亚珂,范涛,赵海武,王国中(933)
基于融合特征与支持向量机的控制图模式识别	宋李俊,赵虎(937)
一种视频数据驱动的水体表面模型生成方法	陈丛,王庆,肖照林(942)
逆向工程中的三维光学检测点云采样技术研究	张德海,崔国英,白代萍,李艳芹,张晓强,杨勇(946)
视频中基于 LW-PGD 和 SVM 的头肩部检测	钦爽,谢刚,饶钦,郭旭,张文慧(949)
融合 Hu 矩与 BoF-SURF 支持向量机的手势识别	隋云衡,郭元术(953)
基于 KNN 的特征自适应加权自然图像分类研究	侯玉婷,彭进业,郝露微,王瑞(957)

#### 信息集萃

下期要目	(925)
------	-------

期刊基本参数:CN51-1196/TP \* 1984 \* m \* A4 \* 320 \* zh \* P \* ¥35.00 \* 3840 \* 77 \* 2014-3 \* n

本期责任编辑 何俐,傅奕,黄莉

# Application Research of Computers

Vol. 31 No. 3 Mar. 2014

## Contents

### Survey

- Research on electronic identity management in cyberspace ..... HAN Ji-zhong, LI Feng-hua, XUE Xiao-yun, *et al.* (641)  
Survey on cooperative communication research in wireless sensor and actuator networks ..... YANG Jie, FENG Yong, ZHENG Xiong-qi, *et al.* (645)  
Survey of AVF evaluation methods for microprocessor reliability ..... TANG Liu, HUANG Zhang-qin, HOU Yi-bin, *et al.* (651)

### Algorithm Research & Explorer

- Design and analysis of calculation sorting algorithm ..... YANG Xiu-cheng, LI Tong, ZHAO Na, *et al.* (658)  
Hybrid algorithm with artificial fish swarm-particle swarm optimization for arrival sequencing and scheduling optimization ..... YUAN Ye, YANG Hong-yu, YU Yi, *et al.* (663)  
Application of fair cumulation method for apportioning seats on genetic selecting operation ..... WANG Cheng, YU Fei, GOU Jin (667)  
Parameter optimization and application of SVM with mixtures kernels based on improved chaotic particle swarm optimization ..... KUANG Fang-jun, XU Wei-hong, ZHANG Si-yang (671)  
Improved MOPSO algorithm and its application ..... FENG Jin-zhi, CHEN Xing, ZHENG Song-lin (675)  
Modified cuckoo search algorithm for solving engineering structural optimization problem ..... CHEN Le, LONG Wen (679)  
Optimization algorithm of 0-1 knapsack problem based on absolute greedy and expected efficiency ..... SHI Lan, ZHANG Yi-hong, LV Jian-hui (684)  
Hybrid model based on wavelet transform and ARIMA for short-term electricity price forecasting ..... NIU Li-xiao, WANG Zheng-fang, ZANG Chuan-zhi, *et al.* (688)  
Study on tourism flow forecast: based on seasonal adjustment' PSO-SVR model ..... WENG Gang-min, LI Ling-yan (692)  
Group recommendation algorithm for online community users ..... GUO Jun-peng, ZHAO Meng-nan (696)  
Discovering topic from Chinese microblog based on hidden topics analysis ..... SHI Jian-hong, CHEN Xing-shu, WANG Wen-xian (700)  
Research on optimization of job scheduling based on multi-queue for Hadoop platform ..... LI Chun-yan, HE Yi-zhou, DAI Bin (705)  
Dynamic ensemble selection algorithm based on constraint score ..... CHEN Rui, HUANG Shu-guang, HUANG Wen, *et al.* (708)  
K-means text clustering algorithm based on initial cluster centers selection according to maximum distance ..... ZHAI Dong-hai, YU Jiang, GAO Fei, *et al.* (713)  
Mining frequent items in uncertain dataset using compressed UF-tree ..... CHEN Chao-quan, HUANG Jia-huan, JIANG Yun-hui (716)  
Heterogeneous multi-dimensional Graph OLAP design and implementation based on DBLP ..... SHAO Lian-long, YIN Mu (720)  
Approximation algorithm for frequent itemsets mining on uncertain dataset ..... WANG Shui, ZHU Kong-tao, WANG Le (725)  
MVDR algorithm for wideband coherent signals based on data reconstruction ..... BIAN Hong-yu, WANG Jun-lin (729)  
Incremental construction algorithm based on attribute power set for interval concept lattice  $L_\alpha^\beta$  ..... ZHANG Chun-ying, WANG Li-ya (731)  
Iterative algorithm for corridor vanishing point detection and tracking ..... ZHANG Qiang, WANG Heng-sheng (735)  
Research on similarity mapping algorithm for high-speed Ethernet ..... YAN Ke, CHEN Jian, ZHENG Yue, *et al.* (739)  
Evaluation and improvement method on division of community structure in network ..... WU Peng, WANG Heng-shan (744)  
Clustering analysis on climate data of red-crowned crane breeding distribution area in Northeast China ..... PENG Li-tan, YAN Han-bing, TANG Xu-qing (747)  
New denoising method for speech signal based on wavelet entropy and adaptive threshold ..... CHEN Xiao-juan, WANG Wen-ting, JIA Ming-chao, *et al.* (753)  
Research and application of regional population attributes analysis based on mobile network signaling ..... SHEN Ze, LUO Jiang-tao, ZHOU Yun-feng, *et al.* (756)  
Research of algorithms for vertex-distinguishing edge coloring of graphs ..... LI Jing-wen, ZHANG Yun-han, CHEN Zhi-peng, *et al.* (760)  
Uncertain continuous time series Top-K anomaly detection method ..... MENG Fan-rong, YAO Yan-xu, CHANG Yu-hu, *et al.* (765)  
Research of subjective trust evaluation model based on fuzzy theory ..... SUN Guang-hua, GAN Gang (769)

### System Development & Application

- Profitability analysis of third-party Internet payment platform ..... YANG Ling, SHUAI Qing-hong (773)  
Method of real-time traffic statistics using mobile network signaling ..... WU Song, LUO Jiang-tao, ZHOU Yun-feng, *et al.* (776)  
Dynamic position detection method for large rotary parts based on IMM ..... GU Wen-tao, FENG Xin, LI Zhou-yang, *et al.* (780)

Study of multi-source information resources cloud systems and cloud services model on cloud computing .....	WANG Xiao-yu, CHENG Liang-lun (784)
Location algorithm based on RKNN and its applications .....	XU Jing-ke, SUN Huan-liang, LIU Tian-bo, <i>et al.</i> (789)
Topic detection model based on Bayesian belief network .....	WU Shu-fang, XU Jian-min, SUN Xiao-lei (792)
Complex network based simulation model for transportation network congestion evaluation .....	YANG Liu-qing, ZONG Gang, LIU Ying-hua (796)
Modeling and simulation of left-turn vehicle collision avoidance behavior in intersection .....	HE Bing-hua, AN Yi-sheng, ZHAO Xiang-mo, <i>et al.</i> (801)
Multi-objective location-transportation model in post-disaster relief operations .....	CHEN Gang, ZHANG Jin (804)
Research on recommendation algorithm by fusing social network and trust .....	LI Hui, MA Xiao-ping, HU Yun, <i>et al.</i> (808)

#### Technology of Information Security

Vulnerability assessment based on correlation .....	ZHANG Feng-li, FENG Bo (811)
Assessment of vulnerability threat based on fuzzy theory .....	MA Chi, GAO Ling, SUN Qian, <i>et al.</i> (815)
Data anonymization based on restriction of information gain ratio: method and evaluation .....	XIONG Ping, ZHU Tian-qing, GU Xiao (819)
Efficient identity-based signature scheme from lattices .....	LI Ming-xiang, LIU Yang, ZHAO Xiu-ming (825)
Ancilla-driven universal blind quantum computation .....	YANG Chen, LI Shun-dong, XUE Dan (829)
Research on two-dimensional and multi-levels reliability evaluation method of cloud service .....	LIU Ying, PAN Ning, JIAO Yang (832)
Data hiding based on disk slack space .....	JIANG Zi-feng, ZENG Guang-yu, WANG Wei, <i>et al.</i> (839)
Differential power analysis attacks on PRESENT .....	LI Lang, LI Ren-fa, LI Ken-li, <i>et al.</i> (843)
Steganalysis of LSB matching based on neighborhood correlation of pixels .....	WU Song, ZHANG Min-qing, LEI Yu (846)
Reversible data hiding method with large embedded capacity .....	QIU Ying-qiang (850)
Implementation of reconfigurable of DES and SM4 encryption algorithm .....	WU Xiao, GUO Pei-yuan, HE Duo-duo (853)

#### Technology of Network & Communication

Socially aware multiple-copy opportunistic routing protocol for VANETs .....	SUN Hai-feng, LUO Guang-chun, QIN Ke (857)
Energy-efficient data gathering algorithm with speed control .....	LIU Rui-chao, GUO Song-tao (860)
Ubiquitous data collection protocol for maximizing lifetime of WSN .....	CHEN Yan, ZHANG Shang-shang, LIANG Jun-bin, <i>et al.</i> (866)
Load balancing algorithm based on probability for Ad hoc networks .....	WANG Hua-dong, HOU Yan, WANG Feng-chun (872)
Iterative location algorithm for LTE mobile station under NLOS environment .....	YAN Long, GAO Ze-hua, GAO Feng (876)
Method support correlation-service with Web service selection .....	HAN Lu, PAN Shan-liang, HE Jing (879)
Construction scheme of multiple secure virtual private networks over next generation optical access networks .....	..... LI Yan, CHANG Xiang-mao, MA Fu-min (884)
Data aggregation scheduling algorithm with uniform power control .....	LIU Wen-bin, YANG Bo, LI Xiang-bao, <i>et al.</i> (888)
Clustering data gathering scheme based on hybrid CS in WSN .....	SHI Dong-sheng (892)
Modeling for overlay network topology based on multivariable tradeoff .....	LIU Yuan-ni, TANG Hong, ZHAO Guo-feng (898)
Optimum sensor allocation in distortion tolerant wireless sensor network .....	LUO Kan, WANG Hua (901)
Virtual potential field based coverage optimization algorithm for directional sensor networks .....	DAI Ning, MAO Jian-lin, FU Li-xia, <i>et al.</i> (905)
Research on dispatching and management model based on safe performance interface .....	CHEN Bin, ZHANG Lei (908)
Resource allocation scheme based on coalitional game model in mobile cloud computing .....	ZHU Cong, LIU Yuan-jun, PENG Zi-ran, <i>et al.</i> (912)

#### Technology of Graphic & Image

Research of rapid eye movement recognition algorithm .....	NI Yi-wen, MU Ping-an, DAI Shu-guang (917)
Fused monogenic binary pattern combined with spatial saliency for facial emotion classification .....	WANG Kai, LIU Jia-jia, JIANG Xiao-liang, <i>et al.</i> (921)
Method of ghost suppression based on similarity measure .....	LI Xiao-juan, LI Jia-tian, HE Yu-feng (926)
Real-time tracking using multi-feature weighting based on compressive sensing .....	WANG Song-lin, XIANG Xin-guang (929)
Novel minimum distance clip method based on color space for video coding .....	LI Ya-ke, FAN Tao, ZHAO Hai-wu, <i>et al.</i> (933)
Recognition of control chart patterns based on feature fusion with support vector machine .....	SONG Li-jun, ZHAO Hu (937)
A video-data-driven method to generate water surface models .....	CHEN Cong, WANG Qing, XIAO Zhao-lin (942)
Point cloud simplification technology of 3D optical measurement applied on reverse engineering .....	..... ZHANG De-hai, CUI Guo-ying, BAI Dai-ping, <i>et al.</i> (946)
Head-shoulder detection based on LW-PGD and SVM in video .....	QIN Shuang, XIE Gang, RAO Qin, <i>et al.</i> (949)
Hand gesture recognition based on combining Hu moments and BoF-SURF support vector machine .....	SUI Yun-heng, GUO Yuan-shu (953)
Research of classification method for natural images based on adaptive feature-weighted K-nearest neighbors .....	..... HOU Yu-ting, PENG Jin-ye, HAO Lu-wei, <i>et al.</i> (957)