



ISSN 1001-3695

CODEN JYYIC7

计算机应用研究

Application Research of Computers

第30卷第4期 2013年4月

Vol.30 No.4 Apr.2013

4

2013

四川省计算机研究院主办
中国 成都 Chengdu,China

- ◆ 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30卷 第4期 2013年4月

目 次

综述评论

云计算系统中数据中心的节能算法研究	张小庆,贺忠堂,李春林,张恒喜,钱琼芬(961)
基于 SVC 的 P2P 流媒体系统研究综述	宋俊平,张 楼,周 旭,唐 昕,白 帆,赵志峰(965)
虚拟机动态迁移方法	常德成,徐高潮(971)
基于干扰对齐的高效云存储方法研究综述	黄 倩,王柳苏,谢显中(977)
连续空间二元粒子群算法理论研究综述	程美英,钱 乾,熊伟清,周鸣争(981)

算法研究探讨

基于高斯变异的智能单粒子算法	夏 伟,程慕鑫,刘漫丹(986)
改进粒子群算法求解应急项目瓶颈资源动态调度问题	杨 琴,廖 斌,吴秋琴,李金奇(989)
0-1 背包问题的萤火虫群优化算法	程 魁,马 良(993)
基于切分结构的快速布图规划算法	杜世民,夏银水,罗 佐(995)
基于浮点型编码策略的差分多目标柔性车间调度优化	蔡 霞,李枚毅,王 康,肖 建(999)
引入虚拟特征参数的混合实时任务调度及应用	胡艳雄,赵维娜,周平方,段登平(1004)
分布式电源的双目标区域优化	关万琳,谭阳红,于 辉(1007)
基于最佳聚类准则的多级模糊态势评估方法	肖春景,乔永卫,贺怀清,李建伏(1011)
一种基于图论的加权聚类融合算法	谢岳山,樊晓平,廖志芳,尹红练,罗 浩(1015)
在线社会网络用户的信息分享行为预测研究	刘 臣,田占伟,于 晶,单 伟(1017)
一种改进的发动机曲柄连杆机构的可靠性分配算法	陈国华,张根保,李冬英,熊 伟(1021)
基于时变时滞动态拓扑的二阶 Leader-Following 多智能体一致性分析	缪 盛,崔宝同,朱夏冰(1024)
存在强势零售商与直销渠道的供应链内生时机	刘 军,谭德庆(1028)
一种基于差分进化和免疫克隆选择算法的混合优化方法	叶洪涛,罗文广,吴 艳(1032)
多式综合公交系统线网布局优化模型及仿真	周高卫,罗 霞(1035)
双序渐进式概念格合并算法	姚佳岷,杨思春,李心磊,彭月娥(1038)
复合形退火的随机聚类算法	赵 凯,李声晋,白 雪,赵 锋(1041)
一种综合标签和时间因素的个性化推荐方法	涂金龙,涂风华(1044)
使用选择因子的证书路径构造算法	王 鑫,程立民,蒋 华,刘建明(1048)
基于隶属度理论的云服务行为信任评估模型研究	谢立军,朱智强,孙 磊,潘 宁(1051)
一种改进的自适应混合神经网络盲分离算法	吕淑平,祝 捷(1055)
公交出行最优路径搜索的有向赋权图模型	姚春龙,李 旭,沈 岚(1058)

软件技术研究

软件开发团队的多目标优化构建研究	张连营,张 祥(1064)
基于云仿真的 Web 服务选择研究	李淑芝,刘 锋,杨书新(1069)
基于 MAS 的集装箱自动化码头协同作业系统模型	王祥雪,朱 璇(1072)

系统应用开发

基于形态特征的测井曲线相似性搜索研究	尚福华,马 楠,杜睿山(1076)
一个新的四维超混沌系统的滞后同步及其 Simulink 仿真	柴秀丽,孔庆梅,董春晨(1079)
基于相关随机子空间的分类数据聚类集成	马海峰,刘宇熹(1082)
半监督学习在不平衡样本集分类中的应用研究	于重重,商利利,谭 劼,涂序彦,杨 扬(1085)
异构信息融合在风电设备状态多准则评价中的应用	周安美,于德介,李 蓉,刘 坚(1090)

绿色网络博文倾向性分析算法研究	龙 琳,邓 伟(1095)
基于概率支持向量回归的产品设计时间预测模型	商志根,严洪森(1099)
一种基于Cookie会话保持的LVS集群系统	孙天昊,陈 飞,邓俊昆(1102)
分布式上下文敏感复杂事件处理方法	王永恒,曹科宁,张小明(1105)
一种基于加速度传感器的人体跌倒识别方法	卢先领,王洪斌,王莹莹,徐保国(1109)
维汉机器翻译未登录词识别研究	米成刚,王 磊,杨雅婷,陈科海(1112)

网络与通信技术

一种基于连接性的VANETs地理机会路由协议	刘 杰,唐 伦,龚 璞,陈前斌(1116)
密集型传感器网络中移动sink的路径选择机制	周 涛,高美凤(1120)
基于核方法的工频干扰消除算法	郭艳菊,陈 雷,陈国鹰,李 锏(1123)
Two-path中继系统中基于最小化中断概率的功率分配方法	方恒刚,李 莉,张 静,罗汉文(1127)
M-Charm速率自适应算法在瑞利平坦衰落信道的性能分析	时 帅,王 玥,符杰林(1130)
基于多拓扑方法解决DHT系统查询本地化问题	张 泰,王 晟,廖 丹(1133)
一种部分CSI下的近邻传播动态分簇算法	冉晓旻,童 珉,莫有权(1136)
基于锁相环的水听器阵列多传感器高精度同步技术	常宗杰,段发阶,蒋佳佳,陈 劲,华香凝,李彦超(1140)
一个适用于DTN网络的拥塞避免与解除方案	杜学绘,陈性元,王 娜,曹利峰(1143)
一种基于复杂网络的P2P流媒体拓扑构建算法	龚尚福,朱建雷,冯 健(1149)
3GPP中基于拥塞控制的协作DSR路由协议研究	袁桂霞,程宏兵(1152)
并行多路传输中数据调度算法的研究	陶 洋,张传欣,代 垚,李 攀(1155)
一种6LoWPAN无线传感器网络移动协议	王晓喃,钱焕延(1158)
基于改进混沌扩频序列的多用户混沌扩频通信系统的研究与仿真	俞 斌,王炼红,贾雅琼(1161)
基于无线噪声信道的编码端码率控制算法研究	朱金秀,李 莉(1166)
认知MIMO频谱共享系统中基于感知的预编码优化	夏洪星,丁么明,张国平(1170)
适用于宽带航空通信系统的大频偏纠正传输方案	戴伟敏,汪璟玢(1175)

信息安全技术

用核K-means聚类和半定规划SVM实现垃圾标签检测	覃 华,丁立朵,符丽锦,覃 希(1179)
轻型分组密码LED代数故障攻击方法	冀可可,王 锯,赵新杰,刘会英(1183)
基于D-S证据理论的XML文档潜在信息获取算法	陈华城,杜学绘,陈性元,夏春涛(1187)
基于提升小波变换和DCT的彩色视频水印算法	熊祥光,王 力,王端理(1191)
一种基于人工噪声的MISO相关信道物理层安全方法	申少君,黄开枝,李印海(1194)
高效可执行文件后门隐写算法	张 萌,陈够喜,张鹏程(1198)
Keccak类非线性变换的置换性质研究	李倩男,李云强,蒋淑静(1201)
一种性能优化的防火墙规则匹配算法	李 中,李 晓(1205)
基于频繁模式的离群点挖掘在入侵检测中的应用	王 茜,唐 锐(1208)

图形图像技术

基于稀疏表示的单帧运动图像盲复原	李信一,刘宁钟,王林宁(1212)
基于Kinect深度信息的实时三维重建和滤波算法研究	陈晓明,蒋乐天,应忍冬(1216)
光流法在机车安全行驶中的应用	严 强,黄增喜,曹丽萍,黄蓉刚(1219)
基于三维直方图重建和降维的Renyi熵阈值分割算法	王菲菲,龚 翱,倪 麟,廖武忠(1223)
一种基于图像纹理特征的波浪检测方法	李 刚,熊亚洲,刘康克,王建华(1226)
基于SVD和小波包分解的自适应鲁棒水印算法	朱 光,张军亮(1230)
基于结构聚类的图像去噪	黎思敏,何 坤,龙 辉,周激流(1234)
基于软形态学的top-hat算子改进算法	林 晓,周大可,胡阳明(1237)
自动交互图像分割中的贝叶斯网络模型构建	李 鹏,李 玲,李 敏(1240)
亚像素级模糊图像配准算法	曹建秋,赵萌萌(1244)
基于奇异值分解的压缩感知核磁共振图像重构算法	王郗雨,杨晓梅,胡学姝(1247)
三角域上拟二次Bézier曲面片的构造及其应用	陈素根,汪志华(1250)
一种快速的固体核径迹图像分割方法	巫 玲,陈念年,王 利,苏 明(1253)
基于多分辨率和Powell算法的医学图像配准	周其慧,宋余庆,陈健美,郝朝玲,晏燕华(1256)
基于边角插值法的图形渐变避免自交算法研究	吕福起,江维琼(1259)
基于Kinect深度信息的手势提取与识别研究	邓 瑞,周玲玲,应忍冬(1263)
直方图匹配算法在超声弹性成像上的应用研究	何颖妮,邵党国,刘东权(1266)
基于Bézier曲线的虚拟人皮肤变形方法研究	邓刚锋,高钦和(1271)
基于小波变换和二维非负矩阵分解的人脸识别算法	李孔震,王炳和,娄 炜,郑 烨(1275)
基于OpenMP的压缩感知多描述并行处理算法	巫小婷,邓家先,任玉莉,杨 扬(1278)

信息集萃

下期要目	(1003)
期刊基本参数: CN51-1196/TP * 1984 * m * A4 * 320 * zh * P *	¥ 35.00 * 3840 * 87 * 2013-04 * n

本期责任编辑 何 俐,傅 奕

Application Research of Computers

Vol. 30 No. 4 Apr. 2013

Contents

Survey

Research on energy saving algorithm of datacenter in cloud computing system	ZHANG Xiao-qing, HE Zhong-tang, LI Chun-lin, et al. (961)
Survey of research on SVC-based P2P streaming systems	SONG Jun-ping, ZHANG Yan, ZHOU Xu, et al. (965)
Live virtual machine migration algorithms	CHANG De-cheng, XU Gao-chao(971)
Survey of efficient cloud storage method based on interference alignment	HUANG Qian, WANG Liu-su, XIE Xian-zhong(977)
Research of continuing binary particle swarm optimization	CHENG Mei-ying, QIAN Qian, XIONG Wei-qing, et al. (981)

Algorithm Research & Explorer

Improved ISPO algorithm based on Gaussian mutation	XIA Wei, CHENG Mu-xin, LIU Man-dan(986)
Improved PSO to dynamic scheduling problem of bottleneck in emergency	YANG Qin, LIAO Bin, WU Qiu-qin, et al. (989)
Artificial glowworm swarm optimization algorithm for 0-1 knapsack problem	CHENG Kui, MA Liang(993)
Fast floorplanning algorithm based on Slicing structure	DU Shi-min, XIA Yin-shui, LUO Zuo(995)
Float-code based differential evolutionary multi-objective optimization for flexible Job-Shop scheduling problem	CAI Xia, LI Mei-yi, WANG Kang, et al. (999)
Hybrid real-time tasks' scheduling with virtual characteristic parameters and its application	HU Yan-xiong, ZHAO Wei-na, ZHOU Ping-fang, et al. (1004)
Double objective area optimization of distributed generation	GUAN Wan-lin, TAN Yang-hong, YU Hui(1007)
Multi-level fuzzy situation assessment method based on best clustering criteria	XIAO Chun-jing, QIAO Yong-wei, HE Huai-qing, et al. (1011)
Weighted cluster fusion algorithm based on graph	XIE Yue-shan, FAN Xiao-ping, LIAO Zhi-fang, et al. (1015)
Information sharing behavior prediction of online social network users	LIU Chen, TIAN Zhan-wei, YU Jing, et al. (1017)
Improved reliability allocation algorithm of engine crank rod system	CHEN Guo-hua, ZHANG Gen-bao, LI Dong-ying, et al. (1021)
Consensus of second-order Leader-Following multi-agent systems with jointly-connected topologies and time-varying delays	MIAO Sheng, CUI Bao-tong, ZHU Xia-bing(1024)
Endogenous timing of supply chain with dominant retailer and direct channel	LIU Jun, TAN De-qing(1028)
Hybrid optimization method based on differential evolution and immune clonal selection algorithm	YE Hong-tao, LUO Wen-guang, WU Yan(1032)
Network layout optimization model of multi-modal comprehensive public transit system and simulation	ZHOU Gao-wei, LUO Xia(1035)
Incremental double sequence algorithm of concept lattice union	YAO Jia-min, YANG Si-chun, LI Xin-lei, et al. (1038)
Random optimal clustering algorithm based on complex annealing method	ZHAO Kai, LI Sheng-jin, BAI Xue, et al. (1041)
Personalized recommendation method based on both tag and time factors	TU Jin-long, TU Feng-hua(1044)
Certificate-path construction algorithm using selected factor	WANG Xin, CHENG Li-min, JIANG Hua, et al. (-1048)
Research on behavior trust evaluation model of cloud services based on membership theory	XIE Li-jun, ZHU Zhi-qiang, SUN Lei, et al. (1051)
Improved self-adaptive mixing neural network algorithm for blind source separation	LV Shu-ping, ZHU Jie(1055)
Weighted directed graph model for searching optimal travel routes by public transport	YAO Chun-long, LI Xu, SHEN Lan(1058)

Software Technology Research

Multi-objective team formation optimization for software development	ZHANG Lian-ying, ZHANG Xiang(1064)
Web services selection research based on CloudSim	LI Shi-zhi, LIU Feng, YANG Shu-xin(1069)
Multi-agent system based collaborative operation system about ZPMC automatic container terminal	WANG Xiang-xue, ZHU Jin(1072)

System Development & Application

Similarity search of well-logging curve based on morphological characteristic	SHANG Fu-hua, MA Nan, DU Rui-shan(1076)
Lag synchronization and simulation by Simulink of new four dimensional hyperchaotic system	CHAI Xiu-li, KONG Qing-mei, DONG Chun-chen(1079)
Relevant random subspace-based clustering ensemble for categorical data	MA Hai-feng, LIU Yu-xi(1082)
Semi-supervised learning in imbalanced sample set classification	YU Chong-chong, SHANG Li-li, TAN Li, et al. (1085)
Application of heterogeneous information fusion in multi-criteria assessment of wind turbines	ZHOU An-mei, YU De-jie, LI Rong, et al. (1090)
Orientation analysis algorithm for blog text in green network	LONG Long, DENG Wei(1095)
Forecast model for product design time based on probabilistic support vector regression	SHANG Zhi-gen, YAN Hong-sen(1099)
LVS cluster system based on cookie session maintenance	SUN Tian-hao, CHEN Fei, DENG Jun-kun(1102)
Distributed context-aware complex event processing method	WANG Yong-heng, CAO Ke-ning, ZHANG Xiao-ming(1105)

Human falling detection based on accelerometer	.....	LU Xian-ling, WANG Hong-bin, WANG Ying-ying, et al. (1109)
Research on out-of -vocabulary words' recognition in Uyghur-Chinese machine translation	.....	MI Cheng-gang, WANG Lei, YANG Ya-ting, et al. (1112)

Technology of Network & Communication

Connectivity based geographical opportunistic routing protocol for vehicular Ad hoc networks	.....	LIU Jie, TANG Lun, GONG Pu, et al. (1116)
Optimal path selection for mobile sink in dense wireless sensor networks	.....	ZHOU Tao, GAO Mei-feng (1120)
Power interference removal algorithm based on kernel method	.....	GUO Yan-ju, CHEN Lei, CHEN Guo-ying, et al. (1123)
Optimal power allocation scheme based on minimizing outage probability in two-path relay system	.....	FANG Heng-gang, LI Li, ZHANG Jing, et al. (1127)
Performance analysis of M-Charm rate adaptation algorithm in Rayleigh flat fading channel	.....	SHI Shuai, WANG Mei, FU Jie-lin (1130)
Multi-topologies method to solve lookup locality problem of DHT	.....	ZHANG Tai, WANG Sheng, LIAO Dan (1133)
Partial CSI based affinity propagation dynamic clustering algorithm	.....	RAN Xiao-min, TONG Min, MO You-quan (1136)
High-precision synchronization acquisition for multiple sensors of hydrophone array based on phase locked loop	.....	CHANG Zong-jie, DUAN Fa-jie, JIANG Jia-jia, et al. (1140)
Congestion control solution to avoid and remove congestion for delay-tolerant network	.....	DU Xue-hui, CHEN Xing-yuan, WANG Na, et al. (1143)
Topology formation algorithm for P2P streaming system based on complex network	.....	GONG Shang-fu, ZHU Jian-lei, FENG Jian (1149)
Research on cooperative DSR routing protocols based on congestion control in 3GPP	.....	YUAN Gui-xia, CHENG Hong-bing (1152)
Research of data-scheduling algorithm in concurrent multipath transfer	.....	TAO Yang, ZHANG Chuan-xin, DAI Qian, et al. (1155)
Mobility protocol for 6LoWPAN	.....	WANG Xiao-nan, QIAN Huan-yan (1158)
Research and simulation of multi-user chaotic spread spectrum communication based on modified chaotic sequence	.....	YU Bin, WANG Lian-hong, JIA Ya-qiong (1161)
Research on rate control algorithm of encoder side under wireless noise channel	.....	ZHU Jin-xiu, LI Li (1166)
Sensing based precoding optimization in cognitive MIMO spectrum sharing system	.....	XIA Hong-xing, DING Yao-ming, ZHANG Guo-ping (1170)
Scheme adapt to wideband aeronautical communication system of large frequency offset correction	.....	DAI Wei-min, WANG Jing-bin (1175)

Technology of Information Security

Detecting tag spam in social tagging systems with kernel K-means clustering and semi-definite programming SVM	.....	QIN Hua, DING Li-duo, FU Li-jin, et al. (1179)
Algebraic fault attack on LED light-weight block cipher	.....	JI Ke-ke, WANG Tao, ZHAO Xin-jie, et al. (1183)
XML document latent information extraction algorithm based on D-S evidence theory	.....	CHEN Hua-cheng, DU Xue-hui, CHEN Xing-yuan, et al. (1187)
Color video watermarking algorithm based on lifting wavelet transform and DCT	.....	XIONG Xiang-guang, WANG Li, WANG Duan-li (1191)
Physical layer security scenario using artificial noise in correlation MISO channel	.....	SHEN Shao-jun, HUANG Kai-zhi, LI Yin-hai (1194)
Executable file backdoor steganographic algorithm with highly efficient	.....	ZHANG Meng, CHEN Gou-xi, ZHANG Peng-cheng (1198)
Research on permutations properties of Keccak-like nonlinear transformation	.....	LI Qian-nan, LI Yun-qiang, JIANG Shu-jing (1201)
Modified firewall rules matching algorithm	.....	LI Zhong, LI Xiao (1205)
Application of frequent pattern based outlier mining in intrusion detection	.....	WANG Qian, TANG Rui (1208)

Technology of Graphic & Image

Single image blind motion deblurring with sparse representation	.....	LI Xin-yi, LIU Ning-zhong, WANG Lin-ning (1212)
Research of 3D reconstruction and filtering algorithm based on depth information of Kinect	.....	CHEN Xiao-ming, JIANG Le-tian, YING Ren-dong (1216)
Application of optical flow in locomotive safe driving	.....	YAN Qiang, HUANG Zeng-xi, CAO Li-ping, et al. (1219)
Renyi entropy thresholding algorithm based on rebuilding and dimension reduction of 3D histogram	.....	WANG Fei-fei, GONG Qu, NI Lin, et al. (1223)
Water wave detection based on texture characteristics	.....	LI Gang, XIONG Ya-zhou, LIU Kang-ke, et al. (1226)
Adaptive robust watermarking algorithm based on SVD and wavelet packet transform	.....	ZHU Guang, ZHANG Jun-liang (1230)
Image denoising based on structure clustering	.....	LI Si-min, HE Kun, LONG Hui, et al. (1234)
Improvement of top-hat based on soft morphology	.....	LIN Xiao, ZHOU Da-ke, HU Yang-ming (1237)
Bayesian network model construction in automatic interactive image segmentation	.....	LI Peng, LI Ling, LI Min (1240)
Fuzzy image registration algorithms of sub-pixel level	.....	CAO Jian-qiu, ZHAO Meng-meng (1244)
Single value decomposition based compressed sensing MRI reconstruction algorithm	.....	WANG Xi-yu, YANG Xiao-mei, HU Xue-shu (1247)
Construction and application for quasi-quadratic Bézier surface over triangular domain	.....	CHEN Su-gen, WANG Zhi-hua (1250)
Fast segmentation algorithm for solid-state nuclear track image	.....	WU Ling, CHEN Nian-nian, WANG Li, et al. (1253)
Medical image registration based on multi-resolution and Powell algorithm	.....	ZHOU Qi-hui, SONG Yu-qing, CHEN Jian-mei, et al. (1256)
Research on avoiding self-intersection in shape morphing based on length and angle interpolation algorithms	.....	LV Fu-qi, JIANG Wei-qiong (1259)
Gesture extraction and recognition research based on Kinect depth data	.....	DENG Rui, ZHOU Ling-ling, YING Ren-dong (1263)
Research on strain image using histogram-based speckle reduction algorithm	.....	HE Ying-ni, SHAO Dang-guo, LIU Dong-quan (1266)
Virtual human skin deformation using Bézier curves	.....	DENG Gang-feng, GAO Qin-he (1271)
Face recognition algorithm based on wavelet transform and 2DNMF	.....	LI Kong-zhen, WANG Bing-he, LOU Hao, et al. (1275)
Multiple description of compressed sensing parallel processing algorithm based on OpenMP	.....	WU Xiao-ting, DENG Jia-xian, REN Yu-li, et al. (1278)

Responsible Editor HE Li, FU Yi