

# 计算机工程与设计

Jisuanji Gongcheng yu Sheji

第31卷 第15期 总第279期 2010年8月16日(半月刊)

## 目次

### 信息安全技术

- Kylin 安全审计系统的设计与实现 ..... 魏立峰, 陈松政 (3339)
- 基于角色的联合授权管理研究 ..... 单宝恒, 张 斌 (3343)
- 基于位图的远程备份数据统一存储和管理方法 ..... 钟婷婷, 刘晓洁, 王 喆 (3346)
- 基于应用层的 SIP 安全机制设计 ..... 龙昭华, 李明哲 (3350)
- 基于数据对象的 RBAC 权限访问控制模型 ..... 赵 静, 杨 蕊, 姜溱生 (3353)
- ADIDS 安全通信模块的设计与实现 ..... 戴尚飞, 韩秀玲, 薛严冬 (3356)
- 认证水印中实现篡改恢复的置乱技术研究 ..... 黄良永, 肖德贵 (3360)
- 基于动态追踪技术侦测 API 钩挂 ..... 朱若磊 (3363)

### 网络与通信技术

- 直连网络中的动态自适应容错路由算法 ..... 董志凌, 朱永华, 池 强 (3367)
- 复杂环境下地震监测的无线传感器网络系统设计 ..... 赵作鹏, 王潜平, 于景邨, 江海峰, 许新征, 李向群 (3371)
- 基于优化簇半径的 WSNs 非均匀分簇路由 ..... 吴振华, 尹志军 (3374)
- P2P 网络节点自组织聚类算法 ..... 熊 馨, 陈 铨 (3379)
- AODV 算法在无线 Mesh 网络中的开发与实现 ..... 蒋文芳, 赵 利, 莫金旺 (3383)
- 基于 SNMP 的 MIB 构建树高效算法研究 ..... 罗 毅, 姚桂玲 (3386)

### 嵌入式系统工程

- 基于 GPRS 的 DSP 程序远程升级的研究与实现 ..... 何 宾, 朱红林 (3390)
- 基于嵌入式 Linux 的数字音频延时系统设计 ..... 冯 义, 王 击 (3393)
- 嵌入式 Linux2.6 内核的 CAN 驱动设计与实现 ..... 张雪松, 王鸿磊, 徐 钊 (3396)
- 基于 GPRS 和 GPS 的特殊人群自动定位系统 ..... 杨久红, 王小增 (3399)
- 数字实现混沌系统的建模、仿真与实验 ..... 徐 强, 包伯成, 胡 文, 杨晓云 (3404)

### 体系结构与外围设备

- 基于 SMP 集群的 MPI+CUDA 模型的研究与实现 ..... 许彦芹, 陈庆奎 (3408)
- 片上多核处理器共享 Cache 划分的公平性研究 ..... 方 娟, 蒲 江, 张 欣 (3413)
- 面向多任务的定制指令模式提取 ..... 薄 拾, 葛 宁, 林孝康 (3416)
- 改善 iSCSI 存储系统性能的优化策略 ..... 姚全珠, 李宏涛 (3419)
- 基于 TBB 任务调度器的 N 皇后多核并行算法 ..... 郑晓薇, 张建强 (3423)

### 软件与算法

- UML 顺序图中消息的形式化描述与相关特性分析 ..... 黄 隲, 杨宇航, 李 虎 (3427)

面向对象 Petri 网建模技术综述 .....	舒远仲, 刘炎培, 彭晓红, 陈志勇 (3432)
面向用户的柔点柔变范围的定量度量 .....	梁东魁, 申利民, 金磊 (3436)
AOP 中结构冲突解决方案研究及其支撑工具设计 .....	胡宏银, 何成万 (3440)
软件可靠性估计的不确定性分析 .....	谢春丽 (3444)

## 多媒体技术

分组无损图像压缩编码方法 .....	高健, 陈耀, 刘旦 (3447)
基于改进能量比值的普通话翘舌音与平舌音区分 .....	吴昊, 鲁周迅 (3451)
基于 GPU 的改进型 GIW 雷达图像降噪算法 .....	孙彬, 倪维平, 严卫东, 边辉, 王培忠 (3455)

## 智能技术

神经网络的 Contourlet 域水印研究 .....	文娟, 谭阳红, 陈建 (3459)
手写数字识别的研究 .....	杜梅, 赵怀慈 (3464)
基于 ANFIS 的船舶航向控制系统的设计 .....	汪明慧, 余永权, 曾碧 (3468)
模糊逻辑在图像融合中的应用 .....	吴迁, 杨红雨 (3473)
改进的互相关虹膜匹配算法 .....	张伟平, 马宏伟, 李培华 (3476)
基于遗传神经网络的多级信息融合模型研究 .....	胡胜利, 赵宁 (3480)
基于 SA 的模糊分类系统在数据挖掘中的应用 .....	郑晓月 (3483)

## 开发与应用

2VUIs 通道整合技术在交互媒体播放器中的应用 ...	王瑞胡, 房斌, 张莲, 毕红微, 刘加陈, 毋灵果 (3487)
基于互文性度量的文本翻译索引 .....	姜怡, 姜欣, 方森 (3490)
基于 J2ME 和蓝牙技术的中国象棋游戏的研究 .....	樊志平, 洪添胜, 庄育飞, 李志标 (3494)
等雨量线自动提取的分析与实现 .....	黄丙湖, 孙根云 (3499)
基于聚类的 OLAP 多维分析查询推荐方法研究 .....	陈元中 (3503)
兵团设计院工程勘察设计项目 MIS 开发研究 .....	靳晟, 张黎明, 张新平, 雷晓云 (3506)
高速公路机电设施养护检测管理评价系统 .....	储诚赞, 高一峰, 肖明, 张智勇, 方正鹏, 朱立伟 (3510)
使用 GPU 加速渲染真实感水波效果的研究 .....	陈显军, 湛永松, 秦晨光, 姜文波, 冉兆春, 石民勇 (3514)
提高 DTW 运算效率的改进算法 .....	尚福华, 孙达辰, 吕海霞 (3518)
CAD 模型面的拓扑缺陷检测算法的设计 .....	胡超, 徐明华 (3521)
摄像机非线性标定方法 .....	王子亨, 穆森, 邱桂苹 (3526)
基于 FMT 的快速 Copy-Move 篡改检测 .....	张广群, 汪杭军 (3530)
基于勋伯格十二音体系的作曲算法 .....	陈智鹏 (3533)
超声乳腺肿瘤图像的自动分割 .....	刘红, 张欣, 吕丹, 程海凭 (3537)

本刊为:

- ★ 中国计算机学会会刊, 中国宇航学会会刊
- ★ 美国《剑桥科学文摘》(CSA) 源期刊
- ★ 英国《科学文摘》(SA, INSPEC) 源期刊
- ★ 俄罗斯《文摘杂志》(AJ of VINITI) 源期刊
- ★ 美国《乌利希期刊指南》(UPD) 收录期刊
- ★ 波兰《哥白尼索引》(IC) 源期刊
- ★ 《中国学术期刊文摘(中文版)》收录期刊

- ★ 《中文核心期刊要目总览》(2008 版) 核心期刊
- ★ 《中国科学引文数据库(CSCD)》收录期刊
- ★ 《中国学术期刊综合评价数据库》收录期刊
- ★ 《中国核心期刊(遴选)数据库》收录期刊
- ★ 《中国学术期刊网络出版总库》收录期刊
- ★ 《万方数据—数字化期刊群》收录期刊
- ★ 《电子科技文摘数据库》收录期刊

期刊基本参数: CN 11-1775/TP\*1980\*m\*A4\*200\*zh\*P\*¥25.00\*53\*2010-15

# Computer Engineering and Design

Vol. 31 No. 15 Sum No. 279 2010/08/16 (Semimonthly)

## CONTENTS

### Information Security Technology

- Design and implementation of secure audit system in Kylin ..... WEI Li-feng, CHEN Song-zheng (3339)
- Research on role-based joint authorization administration ..... SHAN Bao-heng, ZHANG Bin (3343)
- Design and implementation of remote backup data storage and management based on bitmap .....  
..... ZHONG Ting-ting, LIU Xiao-jie, WANG Zhe (3346)
- Design of SIP security mechanism on application-layer ..... LONG Zhao-hua, LI Ming-zhe (3350)
- RBAC permission access control model based on data objects ..... ZHAO Jing, YANG Rui, JIANG Luan-sheng (3353)
- Design and implementation of ADIDS security communication module ... DAI Shang-fei, HAN Xiu-ling, XUE Yan-dong (3356)
- Scrambling technology research of achievement altered recovery in authentication watermarking .....  
..... HUANG Liang-yong, XIAO De-gui (3360)
- Detecting API hook based on active trace ..... ZHU Ruo-lei (3363)

### Network and Communications Technology

- Dynamic adaptive fault-tolerant routing methodology in direct networks ... DONG Zhi-ling, ZHU Yong-hua, CHI Qiang (3367)
- Design of wireless sensor network used to earthquake monitoring in harsh environment .....  
..... ZHAO Zuo-peng, WANG Qian-ping, YU Jing-cun, et al (3371)
- Uneven clustering based on optimal cluster radius for WSNs ..... WU Zhen-hua, YIN Zhi-jun (3374)
- Node clustering algorithm in self-organizing mode for P2P network ..... XIONG Xin, CHEN Tan (3379)
- Development and implementation of AODV algorithm in wireless Mesh networks .....  
..... JIANG Wen-fang, ZHAO Li, MO Jin-wang (3383)
- Effective algorithm research of MIB structure tree based on SNMP ..... LUO Yi, YAO Gui-ling (3386)

### Embedded System Engineering

- Research and implementation of DSP remote update based on GPRS..... HE Bin, ZHU Hong-lin (3390)
- Design of digital audio delay based on embedded Linux ..... FENG Yi, WANG Ji (3393)
- Design and implementation of CAN bus driver based on embedded Linux2.6 core .....  
..... ZHANG Xue-song, WANG Hong-lei, XU Zhao (3396)
- Lost children automatic location system based on GPRS and GPS ..... YANG Jiu-hong, WANG Xiao-zeng (3399)
- Modeling, simulation and experiment of chaotic systems based on digital realization .....  
..... XU Qiang, BAO Bo-cheng, HU Wen, et al (3404)

### Architecture and Periphery Equipment

- Research and implementation of MPI+CUDA model based on SMP clusters..... XU Yan-qin, CHEN Qing-kui (3408)
- Fairness of shared cache partitioning in chip multiprocessors ..... FANG Juan, PU Jiang, ZHANG Xin (3413)
- Custom instruction pattern identification for multi-task environment ..... BO Shi, GE Ning, LIN Xiao-kang (3416)
- Optimization strategy to improve iSCSI performance ..... YAO Quan-zhu, LI Hong-tao (3419)
- N-queens of multi-core parallel algorithm based on TBB task scheduler ..... ZHENG Xiao-wei, ZHANG Jian-qiang (3423)

## Software and Arithmetic

- Formalization description of message in UML sequence diagram and corresponding feature analysis ..... HUANG Long, YANG Yu-hang, LI Hu (3427)
- Survey on object-oriented Petri net modeling ..... SHU Yuan-zhong, LIU Yan-pei, PENG Xiao-hong, et al (3432)
- Quantitative measurement of flexible range of user-oriented flexible point.....LIANG Dong-kui, SHEN Li-min, JIN Lei (3436)
- Research of structural conflict's solution and design of its tools in aspect-oriented programming..... HU Hong-yin, HE Cheng-wan (3440)
- Uncertainty analysis of software reliability estimation ..... XIE Chun-li (3444)

## Multimedia Technology

- Packet lossless image compression coding method ..... GAO Jian, CHEN Yao, LIU Dan (3447)
- Retroflex and non-retroflex detection for mandarin Chinese based on improved energy ratio ..... WU Hao, LU Zhou-xun (3451)
- GPU accelerated implementation of SAR image denoising based on modified GIW algorithm ..... SUN Bin, NI Wei-ping, YAN Wei-dong, et al (3455)

## Intelligent Technology

- Watermarking research of Contourlet transform of ANFIS network ..... WEN Juan, TAN Yang-hong, CHEN Jian (3459)
- Research on handwritten digit character recognition ..... DU Mei, ZHAO Huai-ci (3464)
- Design of ship course control system based on ANFIS ..... WANG Ming-hui, YU Yong-quan, ZENG Bi (3468)
- Application of fuzzy logical in image fusion ..... WU Qian, YANG Hong-yu (3473)
- Improved iris matching algorithm based on correlation ..... ZHANG Wei-ping, MA Hong-wei, LI Pei-hua (3476)
- Research of hierarchical information fusion model based on genetic algorithm with artificial neural network ..... HU Sheng-li, ZHAO Ning (3480)
- Application of fuzzy classification system based on simulated annealing in data mining ..... ZHENG Xiao-yue (3483)

## Developments and Applications

- Interactive media players based on 2VUIs modality integration technology ..... WANG Rui-hu, FANG Bin, ZHANG Lian, et al (3487)
- Text translation index based on intertextuality calculation .....JIANG Yi, JIANG Xin, FANG Miao (3490)
- Research of Chinese chess game based on J2ME and Bluetooth technology ..... FAN Zhip-ping, HONG Tian-sheng, ZHUANG Yu-fei, et al (3494)
- Analysis and realization of automatic extracting isohyets ..... HUANG Bing-hu, SUN Gen-yun (3499)
- Research on recommendation of OLAP queries based on clustering ..... CHEN Yuan-zhong (3503)
- Research on developing management information system of BINTUAN project reconnaissance and design ..... JIN Sheng, ZHANG Li-ming, ZHANG Xin-ping, et al (3506)
- Management evaluation system of highway electrical and mechanical facilities maintaining test ..... CHU Cheng-zan, GAO Yi-feng, XIAO Ming, et al (3510)
- Research of photorealistic water ripple rendering by GPU acceleration .....CHEN Xian-jun, ZHAN Yong-song, QIN Chen-guang, et al (3514)
- Improvement algorithm of improved DTW efficiency .....SHANG Fu-hua, SUN Da-chen, LÜ Hai-xia (3518)
- Design for topology error check algorithm of CAD model face ..... HU Chao, XU Ming-hua (3521)
- Approach for non-linear camera calibration ..... WANG Zi-heng, MU Sen, QIU Gui-ping (3526)
- Quick detection of Copy-Move forgery based on FMT ..... ZHANG Guang-qun, WANG Hang-jun (3530)
- Composition method based on schoenberg's twelve-tone system ..... CHEN Zhi-peng (3533)
- Automatic boundary extraction of ultrasonic breast tumor image ..... LIU Hong, ZHANG Xin, LÜ Dan, et al (3537)