

主管 江西省科学技术厅

主办 江西省计算机学会
江西省计算机技术研究所

编辑出版 《计算机与现代化》编辑部

编辑委员会

顾问 (按姓氏笔划为序)
朱龙发 陈征 周定康
倪国熙 聂承启

主任 魏国汶

副主任 (按姓氏笔划为序)
李建民 杨国强
罗敏 薛锦云

编委 (按姓氏笔划为序)
万常选 王明文 王命延 吕任东
刘觉夫 刘顺潮 汤彬 孙涌
宋利康 杜建强 李广振 杨宇仙
何火娇 张万斌 张俊民 张嗣忠
苑鸿骥 赵应丁 胡剑锋 徐升华
陶俊才 涂彦彬 龚琪琳 舒坚
魏坤玉

编辑部

主编 魏国汶

副主编 (按姓氏笔划为序)
李建民 杨国强
罗敏 薛锦云

责任编辑 刘顺潮

计算机与现代化
(月刊,1985年创刊)

本刊地址 南昌市井冈山大道1416号

邮政编码 330002

电话 0791-6490996

传真 0791-6492535

网上投稿网址 www.c-a-m.org.cn

E-mail jgsdd@163.com

印刷 江西省和平印务有限公司

发行 江西省邮政局

订阅 全国各地邮局(所)

邮发代号 44-121

定价 20.00元 全年240.00元

刊号 ISSN 1006-2475
CN36-1137/TP

目次

图像处理

- 基于多图层的图形验证码生成技术研究 胡征兵,路红,廖龙(1)
- 基于时空结构张量的高速公路视频车辆检测 高建军,王创新(5)
- 基于MITK的医学图像系统设计 党光磊,韦巍(8)
- 独立成分分析应用于人脸识别中的几个问题 李薇,杨庆华(11)
- 一种抗几何攻击的数字图像零水印方案 张伟东,端木春江,李均波(14)
- 一个情感驱动的3D虚拟角色行为动画创作工具 朱剑(18)

人工智能

- 基于粒子群和投影寻踪的样本重构神经网络集成模型在降水预报中的应用 吴春梅,吴建生(23)
- FMI:一种查找丢失物品的移动物联社区系统 孙淑荣,王永利(29)
- 矛盾信息特征提取研究 王春梅,王春刚(33)
- 非战争行动专业训练设施智能化系统设计与研究 刘玉栋,赵水宁,刘军涛,穆新国,范晓宵(37)

信息安全

- 基于危险理论的入侵检测系统误报率研究 李学宝(41)
- 多级变长异或实时解密及校验方法 谢步升,周琪云,罗晓明(44)

算法设计与分析

- 基于混合算法的舰艇参数辨识的研究 韩冰,刘慧,张君臣,杨裕浩(46)
- 面向电信领域的文本分类研究 赵延平,谢丽聪(49)
- 基于OpenGL的离散粒子系统显示方法及其改进 胡英芳,黄强强,江顺亮(53)
- 基于有限元方法的心脏表面建模 肖鹏飞(58)
- P2P网络中基于模糊理论的综合信任模型研究 李波,阎浩(61)
- 光线追踪的OpenGL加速实现研究 黄涛(65)

软件工程

- 农业信息服务呼叫中心的设计与实现 李沐华,周志鹏(70)
- 浅谈自底向上的Shell脚本编程及效率优化 江松波,倪子伟(73)
- 一种基于故障模型的代码静态测试方法研究 夏玉辉,李鸣,万琳,王洪艳(77)
- 基于状态的可嵌入工作流系统设计 李洪波(81)

计算机控制

- 基于卡尔曼滤波的动态脉搏波处理和脉率提取 蒋伟平,蒋平,朱劲,王晓年(84)
- 飞行控制计算机采集处理系统的设计与实现 徐向荣,陈昌涛,欧阳月华(89)
- 高速电视测量仪主控软件的设计与实现 熊智慧(92)
- 基于TCP/IP网络的机房环境监控系统设计 李大连(97)
- PLC恒压供水上位机控制系统的开发 陈德南(100)

操作系统

- 无线传感器网络操作系统TinyOS综述 吴小娜,王漫(103)
- 基于Jini技术的RFID中间件平台 李顺虎,刘芳(106)

网络与通信

- 无线传感器网络数据融合技术研究 邵开丽,周小佳,闫斌(111)
- 基于MPLS的DiffServ模型研究 秦念,吉萌(117)
- 电信IPTV预处理系统业务平台接口设计与实现 王正斌,陶俊才(121)
- 基于DataWindow.NET的多条件查询 黄坤,王家伟(124)
- iTV预处理系统的设计与实现 康汶,陈文杰(128)
- 网络服务运行状态监控技术研究 刘桂峰,陶漪(131)
- EPON上行链路带宽调度策略研究 侯林林,王文力(135)
- 军队医院网络信息系统的的核心分析 李娜,卢沙林(138)
- 智能移动终端混合定位数据采集实现 刘颖,何云,李辉,姚能坚(142)
- 基于柔性字符匹配的校园BBS过滤系统 彭文惠,吴小刚,蒋华(145)
- 基于Ajax技术实现Web异步树的应用研究 戴维,蒋玉芳(148)
- 基于Struts2拦截器的日志记录的设计与实现 赵春亮,张建国,孟晨(150)

应用与开发

- 高校教材征订管理信息化平台的研究 李文斌(154)
- 基于智能客户端的巡检系统设计与实现 孙晖(157)
- 基于MVC模式的在线作业系统的设计 覃开贤,卢瀚(160)
- RFID与J2EE技术在造船管理系统中的应用研究 孙庚,赵树平,冯艳红,冯雨琴,姜凤娇(164)
- 基于公交场站管理的超高频射频识别系统的设计与实现 闫林,苏彦莽,宋涛,赵国政(167)
- 基于UML的电子商务在线销售系统分析与设计 何耀光,康汶,詹先信,温筱群(171)

期刊基本参数:CN36-1137/TP*1985*m*A4*174*zh+en*P*¥20.00*3000*47*2011-02

刊名:原中国计算机学会理事长张效祥院士

Sponsor

Jiangxi Computer Federation

Jiangxi Institute of Computing Technology

Editor and Publisher

Editorial Department of

Computer and Modernization

Editor in Chief WEI Guo-wen

Associate Editor in Chief

LI Jian-min YANG Guo-qiang

LUO Min XUE Jin-yun

Responsible Editor LIU Shun-chao

COMPUTER AND MODERNIZATION

(Monthly, Started in 1985)

Address Jinggangshan Road No.1416,

Nanchang 330002, Jiangxi, China

Tel. 0791-6490996

Fax 0791-6492535

Website www.c-a-m.org.cn

E-mail jgsdd@163.com

Distributor Jiangxi Province Post Bureau

Issue Code 44-121

Price ¥20.00

ISSN 1006-2475
CN36-1137/TP

CONTENTS

IMAGE PROCESSING

- Study on Generation Technology of CAPTCHA Based on Multi-layer HU Zheng-bing, LU Hong, LIAO Long-long(1)
- Tensor-based Vehicle Detection in Highways Surveillance Video GAO Jun-jun, WANG Chuang-xin(5)
- Design of Medical Image System Based on MITK DANG Guang-lei, WEI Wei(8)
- Some Keys to Application of ICA in Human Face Recognition LI Wei, YANG Qing-hua(11)
- A Digital Image Zero-watermarking Scheme for Resisting Geometric Attacks ZHANG Wei-dong, DUANMU Chun-jiang, LI Jun-bo(14)
- A Behavior Animation Developing Tool for Emotion Driven 3D Virtual Character ZHU Jian(18)

ARTIFICIAL INTELLIGENCE

- Neural Network Ensemble Model with Specimen Reconstruct Based on Projection Pursuit and Particle Swarm Optimization for Rainfall Forecasting WU Chun-mei, WU Jian-sheng(23)
- FMI: A Mobile Machine to Machine Community System to Find Missing Items SUN Shu-rong, WANG Yong-li(29)
- Research on Feature Extraction of Contradictory Information WANG Chun-mei, WANG Chun-gang(33)
- Design and Research on Non-war Operation Professional Training Intelligent System LIU Yu-dong, ZHAO Shui-ning, LIU Jun-tao, MU Xin-guo, FAN Xiao-xiao(37)

INFORMATION SECURITY

- Research on False Positive Rate of Intrusion Detection System Based on Danger Theory LI Xue-bao(41)
- Multistage Variable XOR Calibration and Encryption Method XIE Bu-sheng, ZHOU Qi-yun, LUO Xiao-ming(44)

DESIGN AND ANALYSIS OF ALGORITHM

- Research on Parameter Identification of Ship-rudder Based on Hybrid Algorithm HAN Bing, LIU Hui, ZHANG Jun-chen, YANG Yu-hao(46)
- Text Categorization in SMS Queries ZHAO Yan-ping, XIE Li-cong(49)
- Display Method of Discrete Particle Systems Based on OpenGL and Its Improvement HU Ying-fang, HUANG Qiang-qiang, JIANG Shun-liang(53)
- Heart Surface Modeling Based on Finite Element Method XIAO Peng-fei(58)
- Research on Integrated Trust Model Based on Fuzzy Theory on P2P Networks LI Bo, YAN Hao(61)
- Study of OpenGL for Accelerating Ray Tracing HUANG Tao(65)

SOFTWARE ENGINEERING

- Design and Implementation of Agricultural Information Call Center LI Mu-hua, ZHOU Zhi-peng(70)
- A Brief Talk about Bottom-up Shell Script Programming and Efficiency Optimization JIANG Song-bo, NI Zi-wei(73)
- Static Detecting Method for Fault Model XIA Yu-hui, LI Ming, WAN Lin, WANG Hong-yan(77)
- Design of Embedded Workflow System Based on Status LI Hong-bo(81)

COMPUTER CONTROL

- Dynamic Pulse Wave Processing and Pulse Rate Extraction Based on Kalman Filter JIANG Wei-ping, JIANG Ping, ZHU Jin, WANG Xiao-nian(84)
- Design and Implementation for Flight Control Computer Acquisition and Processing System XU Xiang-rong, CHEN Chang-tao, OUYANG Yue-hua(89)
- Design and Realization of Main Monitoring Software About High Speed Videograph XIONG Zhi-hui(92)
- Design of Equipment Room Environment Monitoring System Based on TCP/IP LI Da-lian(97)
- Development of Constant Pressure Water Supply Host Computer Control System Based on PLC CHEN De-nan(100)

OPERATING SYSTEM

- Review of TinyOS for Wireless Sensor Networks Operating System WU Xiao-na, WANG Man(103)
- Jini Technology-based RFID Middleware Platform LI Shun-hu, LIU Fang(106)

NETWORK AND COMMUNICATION

- Research on Data Aggregation in Wireless Sensor Networks SHAO Kai-li, ZHOU Xiao-jia, YAN Bin(111)
- Research on Module of DiffServ over MPLS QIN Nian, JI Meng(117)
- Design and Implementation of Business Platform Interface Under Telecom IPTV Pretreatment System WANG Zheng-bin, TAO Jun-cai(121)
- Multi-conditioned Query Based on DataWindow.NET HUANG Kun, WANG Jia-wei(124)
- Design and Implementation of Pretreatment System of iTV KANG Wen, CHEN Wen-jie(128)
- Research on Network Service Status Monitoring and Control LIU Gui-feng, TAO Yi(131)
- Research on Bandwidth Scheduler Policy of EPON Uplink HOU Lin-lin, WANG Wen-li(135)
- Safety Analysis of Network Information System in Military Hospital LI Na, LU Sha-lin(138)
- Implementation of Intelligent Mobile Terminal Mixed Position Data Collection LIU Ying, HE Yun, LI Hui, YAO Neng-jian(142)
- Campus BBS Filtering System Based on Flexible Pattern Matching in Strings PENG Wen-hui, WU Xiao-gang, JIANG Hua(145)
- Application Research on Asynchronous Tree Based on Ajax Technology DAI Wei, JIANG Yu-fang(148)
- Design and Implementation of Log Record Based on Struts2 Interceptor ZHAO Chun-liang, ZHANG Jian-guo, MENG Chen(150)

APPLICATION AND DEVELOPMENT

- Study on Informational Platform of Textbook Subscription Management in Colleges and Universities LI Wen-bin(154)
- Design and Implementation of Perambulation Inspection System Based on Smart Client SUN Hui(157)
- Design of Online Assignment System Based on MVC QIN Kai-xian, LU Hao(160)
- Application Research on RFID and J2EE Technologies in Fishing Vessels Management System SUN Geng, ZHAO Shu-ping, FENG Yan-hong, FENG Yu-qin, JIANG Feng-jiao(164)
- Design and Implementation of RFID Recognition System Based on Bus Depot Management YAN Lin, SU Yan-mang, SONG Tao, ZHAO Guo-zheng(167)
- Analysis & Design of UML-based E-commercial Online Shopping System HE Yao-guang, KANG Wen, ZHAN Xian-xin, WEN Xiao-qun(171)