

ISSN 1672-6944
CN 32-1675/TN



全民阅读 核心期刊

中国核心期刊（遴选）期刊

江苏省一级期刊

中国学术期刊网络出版总库（中国知网）全文收录

万方数据-数字化期刊群全文收录

中文科技期刊数据库（维普网）全文收录

无线互联科技

WIRELESS INTERNET TECHNOLOGY

主管：江苏省科学技术厅

主办：江苏省科学技术情报研究所

2019年5月 第10期 第16卷
No.10 Vol.16

ISSN 1672-6944



万方数据

2019 10

2004年创刊
2019年第10期
(总第158期)
第16卷
半月刊
2019年5月25日

主 管: 江苏省科学技术厅

主 办: 江苏省科学技术情报研究所

编辑出版: 《无线互联科技》杂志社

社 长: 李 敏

副社长: 李克贵

主 编: 严文强

副主编: 汤 溥 刘 鉴

编辑部主任: 姚 鑫

主 任 编 辑: 顾培培

编 委: (按姓氏笔画为序)

王志功 王文鼎

陈如山 钱学荣

徐平平 黄风义

目 次

通信观察

- | | |
|---------------------------|---------|
| 1 对计算机无线网络通信中传输控制技术的分析与研究 | 吴耀群 |
| 3 无人驾驶汽车自动门系统发展现状研究 | 郑朝捷 曹福顺 |
| 5 通信导航设备集中监控系统分析及设计 | 张毓良 |

无线天地

- | | |
|--------------------------|---------|
| 7 一种基于JPDA算法的多目标数据互联方法研究 | 杨佳义 |
| 9 有源射频识别系统的设计与实现 | 谭元华 |
| 11 NB-IoT技术及其在物联网中的应用研究 | 李 菁 叶卓映 |
| 13 计算机无线网络安全技术应用分析 | 林树青 |

网络地带

- | | |
|--------------------------|-----------------|
| 15 基于SWOT分析法的民族院校校园网安全分析 | 麻文睿 宋俊芳 |
| 18 基于卷积网络的交通标志分类研究 | 许信冬 |
| 20 5G时代的信息安全及相关对策研究 | 蒲 东 |
| 22 基于区块链技术在电力交易中应用面临的挑战 | 张 靖 路 宇 郝宇星 徐道磊 |
| 24 云计算技术在计算机网络安全存储中的应用 | 郑 洋 |
| 26 钢铁企业中物联网技术的应用 | 孙茂杰 |

软件透视

- | | |
|--------------------------------|-------------------------|
| 28 基于Java Web的网上医药商城的设计与实现 | 王 强 张 虎 宋冰严 刘星星 程龙飞 |
| 30 基于边缘计算的农业物联网系统的研究 | 叶惠卿 |
| 33 蚁群算法可视化软件的设计与实现 | 陈嘉圣 李泓波 罗正德 李泽钦 彭攀宇 黄梓琛 |
| 35 数控技术专业“MasterCAM软件应用”课程整体设计 | 唐细永 申耀武 卢小燕 |
| 37 软件项目管理与测试在软件开发中的应用 | 张新伟 |

设计分析

- | | |
|---------------------------|-------------------------|
| 39 基于Jquery课程网站的设计 | 梅元昭 |
| 42 基于用户聚类的图书推荐算法设计与实现 | 高伊腾 张雅迪 唐宁 李云云 周国栋 |
| 44 基于图像识别的影视剧图像帧检测系统设计与实现 | 刘可盈 高琦琛 袁 禾 王嘉敏 裴昕雨 |
| 46 基于嵌入式的长时间高速率任意波形模拟器研究 | 蒋哲伦 刘雨佑 陈 伟 王慧源 陈弈书 顾瑞冲 |
| 49 基于Face++课堂人脸搜索系统的设计与实现 | 邵 田 吴海燕 马宛梅 罗 琴 |
| 51 企业会计信息化管理系统设计 | 陈春谋 |
| 53 一种基于ARM和Boa的智能车库网关设计 | 陈 玮 |
| 55 基于虚拟现实技术的减速器装配仿真系统设计思想 | 王 玥 |

数字教育

- | | |
|---------------------------|-----------------|
| 57 “机电一体化技术”课程多媒体教学资源建设 | 莫 玲 张 勤 姚 屏 马 博 |
| 62 翻转课堂教学模式中信息化技术的应用 | 华 英 |
| 64 提升中高职“3+3”会计人才分层培养质量研究 | 黄 勃 |

- 66 基于云计算的高校教育信息化应用研究 汤建国 韩莉英 孙宜龙
69 基于EduCoder平台的高职程序设计类专业课程改革分析 夏 旭 漆华妹
74 蓝墨云班课的市场营销类课程混合式教学研究 李 颖
76 基于云计算视角下的高校信息化建设研究 高景学
78 数字媒体技术专业中海报设计教学创新研究 司伟利
80 多用途工业机器人教学平台研究 董超祥
82 工程认证背景下的“模拟电子技术”课程改革研究 汤 敏
84 基于大数据智能化产业需求的信管专业人才培养模式研究 王 哲 刘贵容 彭润亚
86 教育公平视角下高职院校精准资助问题的研究 孙 颖
88 APP Inventor在高职学生创新创业实践中的技术难点分析 熊亚蒙
90 思维导图在课程资源库建设中的应用 曲春梅 杨月华
94 基于移动平台的捣固车精品课建设过程中的整改研究 刘云山

实验研究

- 96 基于数据内在特性和LSTM的用电数据异常检测算法研究 吴 刚
100 智能RGV的动态调度策略研究 熊珮全 胡文洁 尚裕博 黄乾鑫 张 哲
102 基于Transfer-SVM多标签文本分类算法研究 李程文 宋文广 谭建平
104 基于Face++的课堂考勤系统设计研究 马宛梅 罗 琴 吴海燕 邵 田
106 基于专家系统的船舶电气设备故障诊断研究 张蒙蒙
108 基于Matlab的波导特性的二次FEM方法分析及仿真探究 潘建伟
110 基于深度学习的雾霾质量浓度预测研究 王梓霖
113 分布式语义自动协商与博弈机制研究 何雨青 朱俊武 李开荣
116 云计算技术下海量数据挖掘的实现机制 何燕燕
118 网络环境下高校图书馆技术部工作的创新与实践 王 博
120 电子产品塑料部件结构设计质量优化研究 王英杰
122 牵引变电所110 kV金属氧化物避雷器预防性试验流程分析 张丽丽

技术应用

- 124 “老年代步车”安全隐患及管理模式分析 姜海燕
126 转速采集异常情况下的主机遥控技术研究 吴富民 陈岱岱 李培正 徐深洋 徐 斌
128 流媒体技术在高校校园网中的教学应用及其重要性研究 万梅芬
130 BIM与GIS技术在数字城市建设中的应用研究 陈 静 王晓轩 卢集富
132 应用发布虚拟化技术在地震行业中的应用 李东霞 王小明 王秀辰 骆艳欣 李 平
134 基于云计算的数据挖掘技术应用与发展 李庆年
136 基于物联网技术的信息化办公专区系统集成应用研究 陆 俊 李 葵 周 明 刘 军 王 筠 李 周 吴 极 项 旭
139 视频结构化在人口动态管理中的应用 胡 鹏
141 超高性能混凝土在建筑工程中的研究和应用 余 华
143 新时代背景下高校图书馆技术部工作设想与实践 吴立岩
145 增强现实技术下的高职院教学资源库构建研究 杨 加
147 人工智能的概念及发展前景分析 罗 通
149 区块链电子存证的证据法价值分析 崔梦雪
——以杭州信息网络传播权纠纷案为例
152 企业网接入安全研究 刘珍亿 苏峥嵘
154 基于区块链的隐私集合交集方案研究 陈万东 尹天宇 王 璇 吕家兴
156 基于“易班”的高校社团建设研究 王建军 王 震 战 非 刘炜航 同 晓
159 基于核心素养的高中“信息技术”课程改革研究 汪 美
161 网络直播形式的特征及治理问题分析 张雨燕 高晓涵
163 GeoGebra软件在小学数学课堂中的应用 刘金海
165 十字式球形深水网箱监测机器人的系统设计 吴海洲 王 慧 黄瑞桂 邹子东 杨华鑫 严 谨 陈春雷
170 基于STM32的小功率光伏模拟器设计研究 廖志贤 周金明 李圆圆
172 基于颜色Petri网的食堂窗口排队模拟仿真 邓雪峰 侯益明 冯灵清
175 以“知行合一”双创型人才培养为目标的营销课程教学改革研究 王娅婷

中国标准连 ISSN 1672-6944
续出版物号: CN 32-1675/TN

邮发代号: 28-473

发行范围: 公开

发 行: 江苏省报刊发行局
南京市建邺区善修文化传播中心

账 号: 10354000000560379

开 户 行: 华夏银行南京城西支行

印 刷: 南京孚嘉印刷有限公司

定 价: 40.00元

《无线互联科技》杂志社

社 址: 江苏省南京市龙蟠路171号

电 话: (025)-85410367

(025)-85410361

(025)-85433097

(025)-85434985

邮 编: 210042

网 址: www.sti.js.cn

www.wxhlkj.net

邮 箱: hlkj@sti.js.cn

wxhlkj@163.com

咨 询 QQ: 171020757

户 名: 江苏省科学技术情报研究所

账 号: 4301012509001028301

开 户 行: 工商银行南京市板仓支行

WIRELESS INTERNET TECHNOLOGY

No.10 2019 (Total No.158)

CONTENTS

Analysis and study discussion on transmission control technology in computer wireless network communication	Wu Yaoqun (1)
Research on the development status of automatic door system for driverless vehicles	Zheng Chaojie, Cao Fushun (3)
Analysis and design of centralized monitoring system for communication and navigation equipment	Zhang Yuliang (5)
Study on a multi-objective data interconnection method based on JPDA algorithm	Yang Jiayi (7)
Design and implementation of active radio frequency identification system	Tan Yuanhua (9)
Study on application of NB-IoT technology and its application	Li Jing, Ye Zhuoying (11)
Analysis on application of computer wireless network security technology	Lin Shuqing (13)
Security analysis of campus network applied for ethnic colleges based on SWOT	Ma Wenrui, Song Junfang (15)
Research on traffic sign classification based on convolution network	Xu Xindong (18)
Analysis of information security in 5G and relevant solution	Pu Dong (20)
Analysis on challenges in the application of block chain technology in power trading	Zhang Jing, Lu Yu, Hao Yuxing, Xu Daolei (22)
Application of cloud application of cloud computing technology in secure storage of computer network	Zheng Yang (24)
Application of Internet of Things technology in iron and steel enterprises	Sun Maojie (26)
Design and implementation of online medical mall based on Java Web	Wang Qiang, Zhang Hu, Song Bingyan, Liu Xingxing, Cheng Longfei (28)
Research on agricultural Internet of Things system based on edge computing	Ye Huiqing (30)
Design and implementation of ant colony algorithm visualization software	Chen Jiasheng, Li Hongbo, Luo Zhengde, Li Zeqin, Peng Panyu, Huang Zichen (33)
Overall design of the “MasterCAM Software Application” course for NC technology major	Tang Xiyong, Shen Yaowu, Lu Xiaoyan (35)
Application of software project management and testing in software development	Zhang Xinwei (37)
Design of course website based on JQuery	Mei Yuanzhao (39)
Design and implementation of book recommendation algorithm based on user clustering	Gao Yiteng, Zhang Yadi, Tang Ning, Li Yunyun, Zhou Guodong (42)
Design and implementation of image frame detection system for film and TV drama based on image recognition	Liu Keying, Gao Qichen, Yuan He, Wang Jiamin, Pei Tingyu (44)
Study on embedded long-time high rate arbitrary waveform simulator	Jiang Zhelun, Liu Yuji, Chen Wei, Wang Huiyuan, Chen Yishu, Gu Ruichong (46)
Design and implementation of the face of a search system in class base on Face++	Shao Tian, Wu Haiyan, Ma Tiaomei, Luo Qin (49)
Design of enterprise accounting information management system	Chen Chunmou (51)
Gateway design of a smart garage based on ARM and Boa	Chen Wei (53)
Design idea of reducer assembly simulation system based on virtual reality technology	Wang Yue (55)
Construction of multimedia teaching resources for “Mechatronics Technology”	Mo Ling, Zhang Qin, Yao Ping, Ma Bo (57)
Application of information technology in Flipped Classroom	HuaYing (62)
Research on improving the quality of “3 + 3” accounting talents in middle and higher vocational colleges	Huang Bo (64)
Research on the application of university education informationization based on cloud computing	Tang Jianguo, Han Liying, Sun Yilong (66)
Analysis on the reform of professional courses of higher vocational programming based on EduCoder platform	Xia Xu, Qi Huamei (69)
Research on mixed teaching of marketing courses in Moso Teach	Li Ying (74)
Research on informatization construction of colleges and universities from the perspective of cloud computing	Gao Jingxue (76)
Research on teaching innovation of poster design in digital media technology specialty	Si Weili (78)
Study on the teaching platform of multi-purpose industrial robot	Dong Chaoxiang (80)
Research on the reform of “Analog Electronic Technology” course under the background of engineering certification	Tang Min (82)
Research on the training model of Information Management professionals based on the demand of big data intelligent industry	Wang Zhe, Liu Guirong, Peng Runya (84)

Research on precision subsidy in higher vocational colleges from the perspective of educational fairness	Sun Ying (86)
Analysis on the technical difficulties of APP Inventor in the practice of innovation and entrepreneurship of higher vocational college students	Xiong Yameng (88)
Application of the mind map in the construction of curriculum resource base	Qu Chunmei, Yang Yuehua (90)
Modification in the construction of quality course of tamping vehicle based on mobile platform	Liu Yunshan (94)
Study on power data anomaly detection algorithm based on data intrinsic property and LSTM.....	Wu Gang (96)
Study on dynamic scheduling strategy of intelligent RGV	Xiong Peiquan, Hu Wenjie, Shang Yubo, Huang Qianxin, Zhang Zhe (100)
Research on multi-label text classification algorithm based on Transfer-SVM	Li Chengwen, Song Wenguang, Tan Jianping (102)
Design and study on classroom attendance system based on Face++	Ma Tiaomei, Luo Qin, Wu Haiyan, Shao Tian (104)
Research on fault diagnosis of ship electrical equipment based on expert system	Zhang Mengmeng (106)
Analysis and simulation of waveguide characteristics based on Matlab by quadratic FEM method	Pan Jianwei (108)
Research on prediction of haze mass concentration based on deep learning	Wang Zilin (110)
Study on distributed semantic automatic negotiation and game mechanism	He Yuqing, Zhu Junwu, Li Kairong (113)
Implementation mechanism of mass data mining under cloud computing technology	He Yanyan (116)
Innovation and practice of technical department of university library under network environment	Wang Bo (118)
Study on structural design quality optimization of plastic parts in electronic products	Wang Yingjie (120)
Preventive test flow analysis of 110 kV MOA in traction substation	Zhang Lili (122)
Analysis on safety hidden danger and management model of “old age walking”	Jiang Haiyan (124)
Study on M/E remote control technology under abnormal speed acquisition	Wu Fumin, Chen Daidai, Li Peizheng, Xu Shenyang, Xu Bin (126)
Discussion on the teaching application and importance of streaming media technology in university campus network	Wan Meifen (128)
Application research of BIM and GIS technology in digital city construction	Chen Jing, Wang Xiaoxuan, Lu Jifu (130)
Implementation of application delivery virtualization technology in seismic industry	Li Dongxia, Wang Xiaoming, Wang Xiuchen, Luo Yanxin, Li Ping (132)
Application and development of data mining technology based on cloud computing	Li Qingnian (134)
Research on the application of information office area system integration based on Internet of Things technology	Lu Jun, Li Kui, Zhou Ming, Liu Jun, Wang Yun, Li Zhou, Wu Ji, Xiang Xu (136)
Video structuring in the application of population dynamic management	Hu Peng (139)
Research and application of the superhigh-performance concrete in the construction	Yu Hua (141)
Tentative ideas and practice of technical department of university library under the background of the new era	Wu Liyan (143)
Study on the construction of teaching resource base in higher vocational colleges based on augmented reality technology	Yang Jia (145)
Analysis on the concept and development prospect of artificial intelligence	Luo Tong (147)
Analysis on the value of evidence method of block chain electronic storage certificate: taking the dispute case of Hangzhou information network communication right as an example	Cui Mengxue (149)
Research on intranet access security	Liu Zhenyi, Su Zhengrong (152)
Study on blockchain-based privacy collection and intersection scheme	Chen Wandong, Yin Tianyu, Wang Xuan, Lyu Jiaxing (154)
Research on the construction of associations in colleges and universities based on “Yiban”	Wang Jianjun, Wang Zhen, Zhan Fei, Liu Weihang, Tong Xiao (156)
Research on “Information Technology” curriculum reform in senior high school based on core literacy	Wang Mei (159)
Analysis on the characteristics and governance of network direct broadcast form	Zhang Yuyan, Gao Xiaohan (161)
Application of GeoGebra software in primary mathematics classroom	Liu Jinhai (163)
System design of the cross-shaped spherical deep-water monitoring robot	Wu Haizhou, Wang Hui, Huang Ruigui, Zou Zidong, Yang Huaxin, Yan Jin, Chen Chunlei (165)
Study on design of low power photovoltaic simulator based on STM32	Liao Zhixian, Zhou Jinming, Li Yuanyuan (170)
Simulation of queuing in canteen window based on color Petri net	Deng Xuefeng, Hou Yiming, Feng Lingqing (172)
Research on teaching reform of marketing course with the goal of “the integration of knowledge and practice” for the cultivation of double creation talents	Wang Yating (175)