

2021 03 第18卷 Vol.18

无线互联科技

WIRELESS INTERNET TECHNOLOGY

中国核心期刊（遴选）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

ISSN 1672-6944



9 771672 694217

万方数据

主管：江苏省科学技术厅

主办：江苏省科学技术情报研究所

无线互联科技

WUXIAN HULIAN KEJI

2004年创刊

2021年第3期

(总第199期)

第18卷

半月刊

2021年2月10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 湜

编辑部主任：王雪芬

本期责任编辑：王永超

编 委：(按姓氏笔画为序)

马永浩 孙 斌

金福兰 周晓明

黄水清 薛 飞

万方数据

目 次

通信观察

- 1 5G背景下移动通信技术专业建设研究与实践 章杰经
3 通信工程建设管理措施研究 周新宇

无线天地

- 5 嵌入式无线网络化测控仪器关键技术研究与应用 葛 涛
7 智能时代人机交互未来发展趋势探讨 陆 鑫, 滕支强, 范亮亮
9 “互联网+”大数据时代数据科学的发展方向及应用分析 顾文钧
11 城市智慧医疗发展趋势研究 马建勋

网络地带

- 13 基层央行网络安全管理长效机制探究 东俊宁
15 基于物联网和小程序架构的网络巡检体系架构探讨 李 军, 王 涛
17 大数据时代下计算机网络信息存在的安全问题研究 齐秀珍
19 云计算环境下网络信息安全技术发展研究 汤荣秀
21 机关单位计算机网络管理系统维护研究 夏 鹏
23 网络课程在校园网络文化建设中的作用 李延玲
25 计算机网络服务器的入侵和防御技术研究 刘艳茹
27 虚拟网络技术在计算机网络安全中的有效应用 刘 雷
29 虚拟专用网络在计算机网络信息安全中的运用分析 张 磊
31 移动互联网时代下区块链的应用研究 徐建桥
33 基于电力物联网的安全防护技术 林亮成, 国 涛
35 智慧校园环境网络课程资源建设的实践研究 王 晖
37 计算机网络安全问题及其防范措施分析 王 薇
39 信息安全视域下网络安全战略的构建 郭腾宇
41 网络环境下智能化学习模式构建与实践研究 隋 健, 刘丽娜

软件透视

- 43 人员信息管理系统开发与应用 孙 卓, 李 静, 孙 伟
45 软件定义网络中的DDoS安全 张庆禄, 范国华, 刘 岩
47 基于混沌序列的视频隐私保护系统设计与实现 王本钰, 郑棣文, 彭舒凡, 李禹欣, 郑以宁
50 基于计算机软件工程的数据库编程技术探究 张海霞
52 PLC与变频器在电气设备自动化控制中的应用研究 李忠震
54 计算机软件Java编程特点及其技术分析 杨彦青, 郭献崇

设计分析

- 56 基于驾驶数据的主动安全预警系统设计 张弘华, 余员琴, 李 晨, 王 叶
58 基于微信公众平台的移动学习系统设计与实现 张 柳
60 数字媒体时代手绘艺术在环境设计中的应用研究 谷 冰
62 便携式多用水果采摘器的设计与研究 陈 聪, 钱 茹, 尤蒙翔, 曹可炜
64 视觉识别中辅助图形的设计方法及应用 曹 硕
66 基于自然语言处理的新冠疫情文献分析与研究 孙 妍, 任 勇, 袁靖飞
68 基于嵌入式设备的机房温湿度监控系统设计与实现 宋 杨
70 基于物联网技术的物流智能仓储系统开发 张 辉
72 基于贝叶斯算法的窃电定位分析 景 彪, 蒋 波, 颜雪婷
75 电力供电系统自动化控制发展趋势 殷 歌
77 基于甲醇混合动力双擎系统装置的设计研究 雷煜航, 于 盟, 宋子朝, 刘鑫鑫
79 过程装备设计中材料的选择运用分析 高 伟

技术应用

81	汽车主被动集成安全发展趋势研究	陈 杰
83	“互联网+”背景下的计算机应用技术探究	丁 一
85	微课在“Java程序设计”教学中的应用研究	邓春华
87	数据库技术在计算机控制中的应用与研究	孙北辉
89	移动数据库中数据复制同步处理策略分析	童正江, 陈 帆
91	OA办公自动化在医院中的运用	夏章琚
93	供配电自动化控制系统的应用	杨 名
95	地理信息系统在城市规划管理中的应用	赵民伟
97	Web前端开发技术在在线学习平台中的研究与应用	庄新妍
99	网络技术应用下计算机软硬件资源共享的实现	殷 佳
101	大数据安全背景下密码技术探讨	白 宇
103	船舶焊接技术的缺陷类型及其处理对策	赵 健
105	汽车总装工艺技术应用及发展趋势探讨	陶 亮
107	“信息安全技术”创新教学模式分析	徐胜超
109	智能制造与机器人应用关键技术研究	罗肖培

实验研究

111	一种车联网的边缘计算构建方法	姚芋伶, 杨 爽, 刘少金
113	一种基于动态关键路径的云工作流调度算法探讨	朱 敏
119	传统元素在Flash实验动画创作中的应用研究	薛朝婷, 王久福
121	常用车床电气故障的检修方法研究	邹基光
123	全国大学生电子设计竞赛与实验教学融合实验案例分析	邱 刚, 黄 倩
125	信息化策略在企业经济管理中的应用探讨	陆晓艺
127	互联网金融第三方支付风险传导及防范措施研究	沐光雨, 李钊金

数字教育

129	“1+X”证书制度下的“计算机网络基础”课程诊改研究	荆于勤
131	“感知校园”应用分析与设计研究	刘俊婷, 侯世中, 王 磊
133	基于S7-200仿真软件的PLC教学探索	贺 莉, 石锋杰, 罗丹羽
135	应用型本科高校“信息安全”课程教学改革研究	时小芳, 邹卓恒
137	中职电子类专业实践教学的改进研究	章 斌
139	基于师生信息素养提升的高校微课资源建设研究	杨 威
141	信息技术驱动的应用型高校创新创业教育体系研究	王 迪
143	5G时代下信息安全专业实训课程构建及实践能力培养	耿楠楠
145	基于慕课的高职计算机混合式教学策略探究	韦大欢
147	5G背景下应用型人才产教融合培养机制研究	李 新
149	物联网应用技术专业“3+1”校企深度合作创新教育模式探索与实践	林稳章, 崔红梅, 孙 鹏
151	“互联网+”背景下高校电子商务专业开放式实训与就业能力分析	王媛媛
153	计算机网络基础知识在高校中的普及与策略研究	王湘慧
155	“互联网+”背景下高职“应用文写作”课线上教学模式探析	王 芳
157	基于智慧学习的高职信息技术教学活动设计	蔡青钰
159	新时期背景下线上高等教育的制约因素研究	何江涛
161	疫情防控期间在线教育的挑战与对策	严晨雪, 于树科, 周 蓉
163	高职大数据应用人才培养研究	许新刚, 杨 勇
165	信息时代高职辅导员师资队伍建设探索	杨 柳
167	高职计算机专业学生就业指导分析	任永琼

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

印 刷: 南京百花彩色印刷广告制作
有限责任公司

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)-85433097

(025)-85410361

邮 编: 210042

网 址: www.sti.js.cn

(科技宣传—科技传媒服务中心)

邮 箱: hlkj@sti.js.cn

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.03 2021 (Total No.199)

CONTENTS

Research and practice of the construction of mobile communication technology major under the background of 5G	Zhang Jiechi (1)
Research on relevant management measures of communication engineering construction	Zhou Xinyu (3)
Research and implementation of key technologies of embedded wireless networked measurement and control instruments	Ge Tao (5)
Discussion on future development trend of human-computer interaction in the intelligent era	Lu Xin, Ten Zhiqiang, Fan Liangliang (7)
Data science development and application analysis in the future “Internet +” Big Data age	Gu Wenjun (9)
Research on the development trend of urban smart healthcare	Ma Jianxun (11)
Research on a long-term mechanism for network security management of central banks	Dong Junning (13)
Discussion on the architecture of network inspection system based on the Internet of Things and small program architecture	Li Jun, Wang Tao (15)
Study on security problems of computer network information in the era of Big Data	Qi Xiuzhen (17)
Research on the development of network information security technology in cloud computing environment	Tang Rongxiu (19)
Research on maintenance of the computer network management system	Xia Peng (21)
Role of network curriculum in the construction of campus network culture	Li Yanling (23)
Research on intrusion and defense technology of computer network server	Liu Yanru (25)
Effective application of virtual network technology in computer network security	Liu Lei (27)
Application analysis of virtual private network in computer network information security	Zhang Lei (29)
Research on the application of block chain in the era of mobile Internet	Xu Jianqiao (31)
Security protection technology based on power Internet of Things	Lin Liangcheng, Guo Tao (33)
Practical research on network course resource construction in smart campus environment	Wang Hui (35)
Computer network security problems and preventive measures	Wang Wei (37)
Construction of network security strategy from the information security perspective	Guo Tengyu (39)
Construction and practice of intelligent learning mode in web environment	Sui Jian, Liu Lina (41)
Development and application of enterprise personnel information management system	Sun Zhuo, Li Jing, Sun Wei (43)
Software defines DDoS security in the network	Zhang Qinglu, Fan Guohua, Liu Yan (45)
Design and implementation of video privacy protection system based on chaos sequence	Wang Benyu, Zheng Diwen, Peng Shufan, Li Yuxin, Zheng Yining (47)
Research on programming technology based on computer software engineering database	Zhang Haixia (50)
Application of PLC and frequency converter in automatic control of electrical equipment	Li Zhongzhen (52)
Characteristics and technical analysis of computer software java programming	Yang Yanqing Guo Xianchong (54)
Design of active safety early warning system based on driving data	Zhang Honghua, Yu Yuanqin, Li Chen, Wang Ye (56)
Design and implementation of mobile learning system based on WeChat public platform	Zhang Liu (58)
Research on the application of hand drawn art in environmental design in digital media Era	Gu Bing (60)
Research and development of portable multi-purpose fruit picker	Chen Cong, Qian Ru, You Mengxiang, Cao Kewei (62)
Design and application of auxiliary graphics in Visual Identity system	Cao Shuo (64)
Literature analysis and research on new crown epidemic based on natural language processing	Sun Yan, Ren Yong, Yuan Jingfei (66)
Design and implementation of temperature and humidity monitoring system in computer room based on embedded equipment	Song Yang (68)
Development and analysis of logistics intelligent storage system based on Internet of Things	Zhang Hui (70)
Analysis of electric stealing location based on Bayesian algorithm	Jing Biao, Jiang Bo, Yan Xueting (72)
Development trend of automatic control of power supply and distribution system	Yin Ge (75)
Design and research of dual engine system based on methanol hybrid	Lei Yuhang, Yu Meng, Song Zichao, Liu Xinxin (77)
Analysis of material selection and application in process equipment design	Gao Wei (79)

Discussion on the development trend of automotive active-passive integrated safety	Chen Jie (81)
Computer application technology under the background of “Internet +”	Ding Yi (83)
Research on application of the micro in the teaching of “Java Programming”	Deng Chunhua (85)
Application and research of database technology in computer control	Sun Beihui (87)
Analysis of data replication synchronization strategy in mobile database	Tong Zhengjiang, Chen Fan (89)
Application of OA office automation in hospital	Xia Zhangjun (91)
Application of power supply and distribution automation control system	Yang Ming (93)
Application of GIS in urban planning management	Zhao Minwei (95)
Research and application of web front-end development technology in online learning platform	Zhuang Xinyan (97)
Realization of computer software and hardware resources sharing under the application of network technology	Yin Jia (99)
Study on cryptography based on Big Data security	Bai Yu (101)
Types and countermeasures of ship welding defects	Zhao Jian (103)
Discussion on application and development trend of automobile assembly technology	Tao Liang (105)
Analysis on the innovative teaching mode of “Information Security Technology”	Xu Shengchao (107)
Research on key technologies of intelligent manufacturing and robot application	Luo Xiaopei (109)
Edge computing construction method for Internet of Vehicles	Yao Yuling, Yang Shuang, Liu Shaojin (111)
Discussion of a cloud workflow scheduling algorithm based on dynamic critical path	Zhu Min (113)
Research on traditional elements in Flash experimental animation creation	Xue Chaoting, Wang Jiufu (119)
Research on the maintenance method of common lathe electrical fault	Zou Jiguang (121)
Analysis of experimental cases integrating national undergraduate electronics design contest competition with experimental teaching	Qiu Gang, Huang Qian (123)
Discussion on the application of information strategy in enterprise economic management	Lu Xiaoyi (125)
Research on risk transmission and preventive measures of third-party payment in Internet finance	Mu Guangyu, Li Zhaojin (127)
Research on diagnosis and reform of “Computer Network Foundation” course under the “1+X” certificate system	Jing Yuqin (129)
Application analysis and design research of “perception campus”	Liu Juntong, Hou Shizhong, Wang Lei (131)
Exploration of PLC teaching based on S7-200 simulation software	He Li, Shi Fengjie, Luo Danyu (133)
Study on the teaching reform of the “Information Security” course in application-oriented universities	Shi Xiaofang, Wu Zhuoheng (135)
Study on the improvement of practical teaching of electronic specialty in secondary vocational schools	Zhang Bin (137)
Research on micro-course resources construction in colleges and universities based on the promotion of information literacy between teachers and students	Yang Wei (139)
Research on innovation and entrepreneurship education system in applied universities driven by information technology	Wang Di (141)
Construction of practical training course for information security specialty in 5G era and cultivation of practical ability	Geng Nannan (143)
Research on computer hybrid teaching strategy of higher vocational college based on MOOC	Wei Dahuan (145)
Study on the integration training mechanism of applied talents in industry and education in 5G context	Li Xin (147)
Exploration and practice on the innovative education model in “3+1” close college-enterprise cooperation of IoT technology and application	Lin Wenzhang, Cui Hongmei, Sun Peng (149)
Analysis on open practice and employment ability of e-commerce specialty in colleges and universities under the background of “Internet+”	Wang Yuanyuan (151)
Research on the popularization and strategy of computer network basic knowledge in colleges	Wang Xianghui (153)
Analysis on online teaching mode of “Practical Writing” in higher vocational colleges under the “Internet +” background	Wang Fang (155)
Design of higher vocational information technology teaching activities based on intelligent learning	Cai Jingyu (157)
Research on the restrictive factors of online higher education in the new era	He Jiangtao (159)
Challenges and countermeasures of online education during epidemic prevention and control	Yan Chenxue, Yu Shuke, Zhou Rong (161)
Training of applied talents in higher vocational Big Data	Xu Xingang, Yang Yong (163)
Exploration on the construction of higher vocational counselors’ teaching staff in the information age	Yang Liu (165)
Analysis of employment guidance for computer majors in higher vocational colleges	Ren Yongqiong (167)