

◎ 中文核心期刊

◎ 中国科技核心期刊 RCCSE中国核心学术期刊(A)

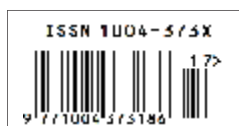
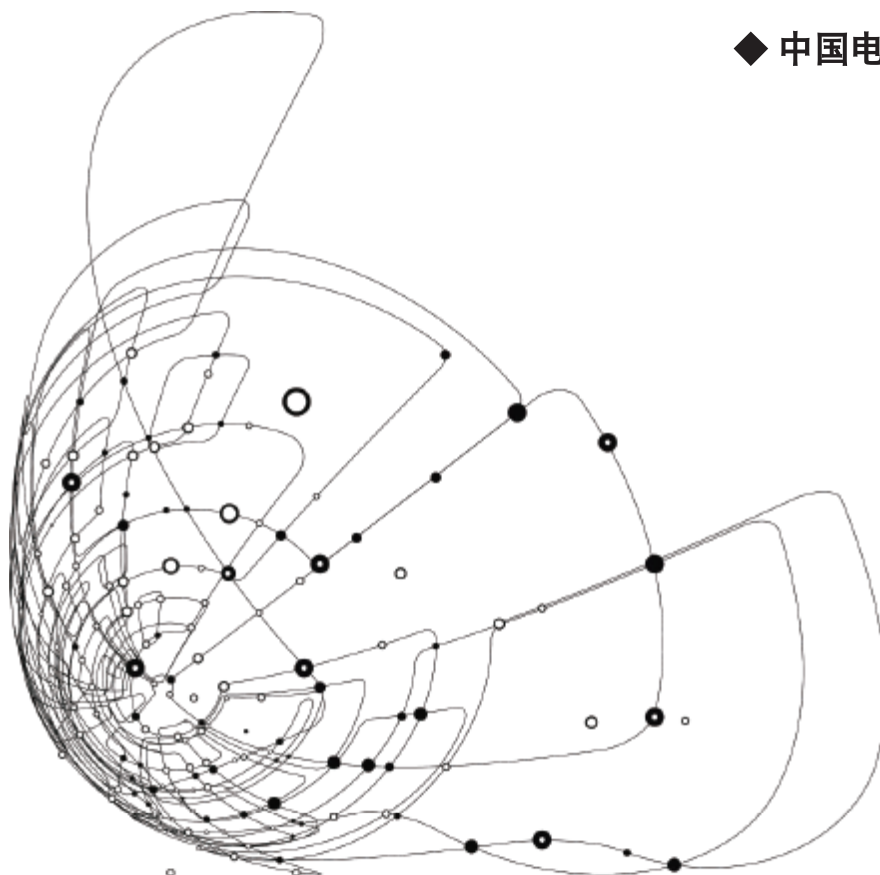
◎ 主办：陕西电子杂志社 陕西省电子技术研究所

Modern Electronics Technique

# 现代电子技术<sup>®</sup>

<http://www.xddz.com.cn>

◆ 中国电子学会重点支持期刊



万方数据

2018  
第41卷  
Vol. 41 No. 17

17

# 目 次

## 通信与信息工程

- 基于可变仰角阈值的低轨道量子卫星切换策略及性能分析·····聂 敏, 车俊丽, 杨 光, 裴昌幸 (1)
- 基于矩形覆盖的异步航迹抗差关联算法·····郑 麟, 衣 晓, 张怀巍, 高玉章 (6)
- 针对智能家居应用中的 LEACH 协议改进·····王改云, 胡方舟 (11)
- OFDM 基于子载波相移的低复杂度 PTS 方法·····刘鹏成, 徐 湛 (15)
- 基于 IEEE 802.11 的无线组播网络性能研究与验证·····王金涛, 李明齐, 蔡青春 (20)
- 矿用透水事故水声通信救援系统研究·····齐俊艳, 王 磊, 乔 莉 (25)
- 60 GHz 下基于 QCLDPC 编码的均衡方案性能研究·····欧 莹, 李兴华 (30)
- 基于 FPGA 认知无线网络中双优先级 MAC 协议的研究  
·····徐 智, 丁洪伟, 杨志军, 何 敏, 保利勇, 柳虔林 (34)
- 海洋地质调查远程监控系统研发与应用·····郑宝锋, 丁鸿弼 (40)
- 新型双圆弧微带天线设计及基片介质影响·····王 鹏, 王子元, 芦 浩, 薛茜男 (45)

## 信号分析与图像处理

- 基于无线同步的声波测距系统设计·····任宪洁, 潘绍明, 柯宝中 (49)
- 改进 EMD 与小波阈值相结合的光生混沌信号降噪·····牛 阔, 张朝霞, 王娟芬, 杨玲珍 (53)
- 智能监控系统中自适应抗遮挡目标跟踪·····张 颖, 李孟歆, 英 宇 (59)
- INS 辅助的卫星接收机高动态信号捕获仿真研究·····汤霞清, 陈书磊, 武 萌, 高军强 (62)
- 多维图像数据的分块无损压缩系统设计·····朱艳龙 (67)
- 改进单尺度 Retinex 的彩色图像增强算法·····赵冬梅, 李斯娜 (71)
- 基于回声状态网络的古典音乐分类模型·····徐溶泽 (76)

## 网络与信息安全

- 无线传感网络的匿名访问控制系统设计·····张定祥 (80)
- $\beta$ NodeRank: 一种对社交网络节点重要性评估的方法·····徐 达, 杜彦辉, 芦天亮, 翟 瑞 (85)
- 基于稳定链路的移动 Ad Hoc 网络路由算法·····黄 波, 张小华 (90)

## 电子技术及应用

- 基于 Copula 函数的电网规划指标相关性分析及建模·····丁家满, 唐 渐, 王清心, 杜 奕 (95)

- 双馈风电机组去磁控制策略研究·····毛剑波, 吴国祥 (102)
- 基于FPGA的宽带信号产生和频率测量电路·····王丽娜, 杨绪森, 许冉, 徐伟, 吴静, 石晨鸣 (107)
- 基于Proteus仿真的无线温度检测系统低功耗研究·····钟健, 王丰元, 张明杰, 杨立超 (112)
- $\alpha\beta$ -dq-0坐标系下高压电机起动特性的分析·····顾海勤, 杨奕, 张蔚, 顾雪政, 黄媛媛 (116)
- 基于金属检测的智能循迹小车设计·····杜青, 乔延华, 韩淼, 苗艳华, 蔡乙男 (119)
- 智能蒙皮天线分布式设计研究·····何庆强 (123)

## 能源与环境科学

- 基于二重积分滑模控制的光伏并网系统·····李志军, 张仔坤, 奚文霞, 王娟, 张川博 (128)
- 一种新型低畸变主动孤岛检测算法的研究·····乔家振, 杨淑连, 李田泽, 南雪 (132)

## 智能交通与导航

- 基于Gabor特征提取和SVM交通标志识别方法研究·····张传伟, 崔万豪 (136)
- 基于改进FP算法的隧道交通事故关联分析·····刘云翔, 韩贝 (141)
- 车载网络中基于混合地理路由协议·····黄智聪 (145)
- 基于单片机的车内高温预警系统设计·····巴兴强, 马越, 王晓辉 (149)

## 测控与自动化技术

- 改进的快速遗传算法在函数优化中的应用·····周勇, 胡中功 (153)
- 微小型机器人嵌入式远程实时控制系统设计·····张刚, 布挺, 焦文潭 (158)
- 基于云计算平台的差分进化算法改进研究·····孙洁, 连畅 (163)
- 移动机器人路径规划仿真研究·····梁凯, 陈志军, 闫学勤 (167)
- 基于神经网络的建筑施工质量评价·····张敏 (173)
- 基于BIM的建筑工程进度估计方法研究·····武炜 (178)
- 基于读者个性化特征的图书馆书目推荐·····李萍, 彭小华 (182)

## 声明

本刊已许可国内外相关数据库和中国知网在其系列数据库产品中以数字化方式复制、汇编、发行、信息网络传播本刊全文。该社著作权使用费与本刊稿酬一并支付(相关稿酬不再另行支付)。作者向本刊提交文章发表的行为即视为同意我社上述声明。

## Contents

Handover strategy of low orbit quantum satellite based on variable elevation angle threshold and its performance analysis .....	NIE Min, CHE Junli, YANG Guang, PEI Changxing (1)
Asynchronous anti-bias track association algorithm based on rectangular cover method .....	ZHENG Lin, YI Xiao, ZHANG Huaiwei, GAO Yuzhang (6)
Improvement of LEACH protocol in smart home application .....	WANG Gaiyun, HU Fangzhou (11)
Subcarrier phase shift based low complexity PTS method for OFDM .....	LIU Pengcheng, XU Zhan (15)
Performance research and validation of wireless multicast network based on IEEE 802.11 .....	WANG Jintao, LI Mingqi, CAI Qingchun (20)
Research on underwater acoustic communication system for mine water flooding accident rescue .....	QI Junyan, WANG Lei, QIAO Li (25)
Performance research on equalization scheme based on QCLDPC coding for 60 GHz pulse wireless communication system .....	OU Ying, LI Xuehua (30)
Study on FPGA-based dual-priority MAC protocol in cognitive radio network .....	XU Zhi, DING Hongwei, YANG Zhijun, HE Min, BAO Liyong, LIU Qianlin (34)
Development and application of remote monitoring system for marine geological survey .....	ZHENG Baofeng, DING Hongbi (40)
Design of new biarc microstrip antenna and influence of substrate medium .....	WANG Peng, WANG Ziyuan, LU Hao, XUE Qiannan (45)
Design of acoustic range finding system based on wireless synchronization .....	REN Xianjie, PAN Shaoming, KE Baozhong (49)
Photogenerated chaos signal noise reduction based on improved EMD and wavelet threshold .....	NIU Kuo, ZHANG Zhaoxia, WANG Juanfen, YANG Lingzhen (53)
Adaptive anti-occlusion moving target tracking of intelligent video surveillance system .....	ZHANG Ying, LI Mengxin, YING Yu (59)
Simulation research on high-dynamic signal acquisition of INS-aided satellite receiver .....	TANG Xiaqing, CHEN Shulei, WU Meng, GAO Junqiang (62)
Design of block lossless compression system for multi-dimensional image data .....	ZHU Yanlong (67)
Color image enhancement algorithm based on improved single scale Retinex .....	ZHAO Dongmei, LI Sina (71)
Classical music classification model based on echo state network .....	XU Rongze (76)
Design of anonymous access control system for wireless sensor network .....	ZHANG Dingxiang (80)
$\beta$ NodeRank-based node importance evaluation method for social networks .....	XU Da, DU Yanhui, LU Tianliang, ZHAI Rui (85)
Mobile Ad Hoc networks routing algorithm based on stable link .....	HUANG Bo, ZHANG Xiaohua (90)
Copula function based correlation analysis and modeling of power grid planning indexes .....	DING Jiaman, TANG Jian, WANG Qingxin, DU Yi (95)
Research on demagnetization control strategy for doubly-fed induction generator .....	MAO Jianbo, WU Guoxiang (102)

- Wideband signal generation and frequency measurement circuits based on FPGA  
 .....WANG Lina, YANG Xusen, XU Ran, XU Wei, WU Jing, SHI Chenming (107)
- Study on Proteus simulation based low-power consumption design scheme of self-powered wireless temperature  
 detection system .....ZHONG Jian, WANG Fengyuan, ZHANG Mingjie, YANG Lichao (112)
- Analysis of starting characteristic of high-voltage motor in  $\alpha\beta$ -dq-0 coordinate system  
 .....GU Haiqin, YANG Yi, ZHANG Wei, GU Xuezheng, HUANG Yuanyuan (116)
- Design of intelligent tracking car based on metal detection  
 .....DU Qing, QIAO Yanhua, HAN Miao, MIAO Yanhua, CAI Yinan (119)
- Research on distributed design of smart skin antenna .....HE Qingqiang (123)
- Photovoltaic grid-connected system based on double integral sliding mode control  
 .....LI Zhijun, ZHANG Zikun, XI Wenxia, WANG Juan, ZHANG Chuanbo (128)
- Research on a new low-distortion active algorithm for islanding detection  
 .....QIAO Jiazhen, YANG Shulian, LI Tianze, NAN Xue (132)
- Research on traffic sign recognition based on Gabor feature extraction and SVM  
 .....ZHANG Chuanwei, CUI Wanhao (136)
- Improved FP algorithm based associations analysis of tunnel traffic accident .....LIU Yunxiang, HAN Bei (141)
- A novel hybrid geographic routing protocol in VANETs .....HUANG Zhicong (145)
- Design of in-car high temperature early warning system based on single chip microcomputer  
 .....BA Xingqiang, MA Yue, WANG Xiaohui (149)
- Application of improved fast-convergent genetic algorithm in function optimization  
 .....ZHOU Yong, HU Zhonggong (153)
- Design of embedded remote real-time control system for micro robot .....ZHANG Gang, BU Ting, JIAO Wentan (158)
- Research on improved differential evolution algorithm based on cloud computing platform  
 .....SUN Jie, LIAN Chang (163)
- Simulation study on effective path planning for mobile robot .....LIANG Kai, CHEN Zhijun, YAN Xueqin (167)
- Construction quality evaluation based on neural network .....ZHANG Min (173)
- Research on BIM-based construction progress estimation method of building engineering .....WU Wei (178)
- Library bibliographic recommendation based on personalized features of readers .....LI Ping, PENG Xiaohua (182)

## 本刊主要荣誉

中文核心期刊  
 中国科技核心期刊  
 RCCSE 中国核心学术期刊(A)  
 中国学术期刊影响因子年报统计源期刊  
 中国新闻出版总署资料库收藏期刊  
 中文科技期刊数据库全文收录期刊  
 中国学术期刊(光盘版)期刊  
 陕西省精品科技期刊  
 中国期刊全文数据库收录期刊  
 中国学术期刊综合评价数据库来源期刊  
 中国科技论文统计与分析用刊  
 美国《乌利希期刊指南》收录期刊

## 声明

1. 《现代电子技术》编辑部系陕西电子杂志社下辖《现代电子技术》杂志的唯一编辑、征稿部门,编辑部在社外无任何形式的组稿代理、外聘编辑等;
2. 作者投稿唯一通道为《现代电子技术》官方网站采编系统,且要求所有文章的通信作者为文章主要署名作者,不接受非署名作者投稿。