



ISSN 1001-2400  
CN 61-1076/TN  
CODEN XDKXEP

XI'AN DIANZI KEJI DAXUE XUEBAO

西安电子科技大学 学报

JOURNAL OF XIDIAN UNIVERSITY

- ★ 2022中国高校百佳科技期刊
- ★ 2020年陕西省高校科技名刊

2023

第50卷 第1期  
Vol.50 No.1



## 目 次

空天地一体化融合组网的挑战与关键技术

..... 崔新雨, 伍杰, 周一青, 刘玲, 潘振岗 (1)

一种采用信号虚拟分解的多址接入方法

..... 李钊, 胡娇娇 (12)

利用高斯牛顿迭代的时频差无源定位算法

..... 汤建龙, 解佳龙, 薛成均 (19)

一种采用松弛正交预编码的多址接入方法

..... 刘成玉, 张碧桂, 李钊 (29)

注意力机制的 SAR 图像车辆目标检测网络

..... 张强, 杨欣朋, 赵世祥, 卫栋栋, 韩臻 (36)

采用渐进式网络的弱监督显著性目标检测算法

..... 刘晓雯, 郭继昌, 郑司达 (48)

考虑 APD 的部分相干光 OFDM-UWOC 系统性能

..... 宋亚童, 李爽, 李刚刚, 顾士忠, 王平, 郭立新 (58)

DF-UAV 中继广播通信系统航迹优化方法

..... 李冬霞, 宋思雨, 刘海涛 (66)

LSTM 循环神经网络的高速铁路越区切换算法

..... 陈永, 牛凯玉, 康婕 (76)

一种消除直流失调的自动频率校准低通滤波器

..... 杨浩涵, 乔树山 (85)

PMSM 无位置传感器控制的系统延迟补偿方法

..... 李文真, 刘景林 (93)

一种砷化镓工艺的双向真时延芯片设计

..... 郝东宁, 张为 (102)

对称 PMC(SPMC)模型下节点可诊断性研究

..... 刘三阳, 党拓, 白艺光 (109)

一种用于自动驾驶场景的轻量级语义分割网络

..... 刘博翀, 蔡怀宇, 杨诗远, 李灏天, 汪毅, 陈晓冬 (118)

融合注意力引导的多尺度低照度图像增强方法

..... 张雅荔, 李文元, 李昌禄, 丁少博 (129)

面向目标情感分析的双重图注意力网络模型

..... 崔少国, 陈思奇, 杜兴 (137)

一种非侵入式低功耗高精度的用电器识别算法

..... 吴拔云, 顾文杰, 何先灯 (149)

空间自适应方向全变分地震数据去噪模型

..... 张丽丽, 乔增强, 王德华 (158)

一种用于交通预测的注意力时空图神经网络

..... 甘萍, 农丽萍, 张文辉, 林基明, 王俊义 (168)

采用云和 PUF 的轻量级 RFID 双标签认证协议

..... 艾璐琳, 常正泰, 范文兵, 孔德涵 (177)

key-nets 同态加密方案的安全性分析及改进

..... 李文华, 董丽华, 曾勇 (192)

支持恶意惩罚的公平可编辑区块链方案

..... 任艳丽, 翟梦娟, 胡明琪 (203)

## Contents

Challenges of and key technologies for the air-space-ground integrated network

..... *CUI Xinyu, WU Jie, ZHOU Yiqing, LIU Ling, PAN Zhenggang* ( 1 )

Virtual signal decomposition based multiple access method

..... *LI Zhao, HU Jiaojiao* ( 12 )

TDOA-FDOA passive location algorithm using gauss-newton iteration

..... *TA NG Jianlong, XIE Jialong, XUE Chengjun* ( 19 )

Multiple access method using a relaxed orthogonal precoder

..... *LIU Chengyu, ZHANG Bigui, LI Zhao* ( 29 )

Vehicle-target detection network for SAR images based on the attention mechanism

..... *ZHANG Qiang, YANG Xinpeng, ZHAO Shixiang, WEI Dongdong, HAN Zhen* ( 36 )

Weakly-supervised salient object detection with the multi-scale progressive network

..... *LIU Xiaowen, GUO Jichang, ZHENG Sida* ( 48 )

Performance of APD-based OFDM-UWOC system with partially coherent beams

..... *SONG Yatong, LI Shuang, LI Ganggang, GU Shizhong, WANG Ping, GUO Lixin* ( 58 )

Trajectory optimization method of the DF-UAV relay broadcast communication system

..... *LI Dongxia, SONG Siyu, LIU Haitao* ( 66 )

Handover algorithm for a high-speed railway based on the LSTM recurrent neural network

..... *CHEM Yong, NIU Kaiyu, KANG Jie* ( 76 )

Automatic frequency-calibrated low-pass filter with DC offset cancellation

..... *YANG Haohan, QIAO Shushan* ( 85 )

System delay compensation method for PMSM sensorless control

..... *LI Wenzhen, LIU Jinglin* ( 93 )

---

GaAs bidirectional true time delay chip design

..... *HAO Dongning ,ZHANG Wei* (102)

Research on node diagnosis under the Symmetric PMC (SPMC ) model

..... *LIU Sanyang ,DANG Tuo ,BAI Yiguang* (109)

Lightweight semantic segmentation network for autonomous driving scenarios

..... *LIU Bochong ,CAI Huaiyu ,YANG Shiyuan ,LI Haotian ,WANG Yi ,CHEN Xiaodong* (118)

Method for enhancement of the multi-scale low-light image by combining an attention guidance

..... *ZHANG Yali ,LI Wenyuan ,LI Changlu ,DING Shaobo* (129)

Dual graph attention networks model for target sentiment analysis

..... *CUI Shaoguo ,CHEN Siqi ,DU Xing* (137)

Low-power consumption high-precision non-intrusive electrical appliance identification algorithm

..... *WU Boyun ,GU Wenjie ,HE Xiandeng* (149)

Model for denoising of spatial adaptive directional total variation seismic data

..... *ZHANG Lili ,QIAO Zengqiang ,WANG Dehua* (158)

Attention spatial-temporal graph neural network for traffic prediction

..... *GAN Ping ,NONG Liping ,ZHANG Wenhui ,LIN Jiming ,WANG Junyi* (168)

Lightweight RFID dual-tag authentication protocol using cloud and PUF

..... *AI Lulin ,CHANG Zhengtai ,FAN Wenbing ,KONG Dehan* (177)

Analysis and improvement of the security of the key-nets homomorphic encryption scheme

..... *LI Wenhua ,DONG Lihua ,ZENG Yong* (192)

Fair redactable blockchain supporting malicious punishment

..... *REN Yanli ,ZHAO Mengjuan ,HU Mingqi* (203)