



系统工程与电子技术

Systems Engineering and Electronics

3

第42卷 第3期 2020年3月
Vol.42 No.3 March 2020



- 美国工程索引 (EI) 收录
- 荷兰Scopus数据库收录
- 英国科学文摘 (INSPEC) 收录
- 日本科学技术振兴机构数据库 (JST) 收录
- 中文核心期刊要目总览收录
- 中国核心期刊 (遴选) 数据库收录
- 中国科技论文统计源期刊
- 中国科学引文数据库核心期刊

编 辑 部

系 统 工 程 与 电 子 技 术

· 电子技术 ·

- 对数频偏 FDA 方向图解耦优化
..... 王 博, 谢军伟, 张 晶, 葛佳昂 505
- 基于时隙差的电磁散射机理分解技术 李建周, 刘祥威 513
- 大气折射对高程约束下时差定位误差的影响及修正
..... 张书强, 郭福成, 张 敏, 李 曜 521
- 调频连续波引信超宽带电磁脉冲前门耦合效应
..... 陈凯柏, 高 敏, 周晓东, 程 呈 528
- GNSS 接收机射频前端电路相位噪声评估方法
..... 潘党飞, 刘文学, 葛 建, 袁 洪, 袁 超 536
- 一种稳健的多主瓣干扰抑制方法
..... 陈 卓, 贾维敏, 金 伟, 张峰干 544
- 基于二级字典的联合稀疏表示高光谱图像分类 ... 陈善学, 陈雯雯 550
- 基于增强高阶非凸全变分模型的图像去噪算法
..... 刘 佩, 贾 建, 陈 莉, 安 影 557
- 传感器与信号处理 ·
- 基于混合 Wishart 分布 MRF 分割的极化 SAR 图像海岸线检测
..... 刘 春, 包君梁, 杨 健, 马文婷, 王 青 568
- 机动平台俯冲大斜视 SAR 脉冲重复频率设计
..... 党彦锋, 梁 毅, 张 罂, 梁宇杰, 张玉洪 575
- 基于联合 EDF 和多模板的天波雷达波位调度方法
..... 韩 伟, 王国师, 张朝伟, 余志惠 582
- 双隐身飞机闪烁干扰对单脉冲雷达性能的影响
..... 包 磊, 王春阳, 白 娟, 曾会勇 589

基于聚类和时序相关的重点雷达信号快速识别 张怡霄, 郭文普, 康 凯, 姚云龙, 王 攀 597

基于 MIMO-ISAR 的弹道目标结构参数估计方法 韩立珣, 田 波, 冯存前 603

• 系统工程 •

单部件加速退化系统的视情维修策略优化 陈 闻, 陆宁云, 姜 斌, 邢 尹 613

基于超启发式算法的备件供应网络结构优化 王亚东, 石 全, 夏 伟, 陈 材 620

基于 FA-ER 的装备保障资源供给能力评估方法 李 岩, 陈云翔, 罗承昆, 蔡忠义 630

面向收益不均等区域目标的多星调度问题 姚靖宇, 薛 鹏, 朱外明, 胡笑旋 638

融合专家先验知识和单调性约束的贝叶斯网络参数学习方法 曾 强, 黄 政, 魏曙寰 646

地空导弹装备高原训练安全风险评估 李佳坤, 李彦彬, 宋亚飞 653

• 制导、导航与控制 •

具有自适应非线性增益的开环 PD 型迭代学习控制 代明光, 齐 蓉, 李兵强, 赵逸云 660

基于最大熵方法的鲁棒自适应滤波及其应用 罗凯鑫, 吴美平, 范 颖 667

类脑导航中基于差分 Hebbian 学习的网格细胞构建模型 韩 昆, 吴德伟, 来 磊 674

基于正交变换的五阶容积卡尔曼滤波导航算法 何康辉, 董朝阳 680

核模糊 C 均值聚类算法优选 BDS-3 三频组合观测值 田 睿, 范祥祥, 戴 影, 孙宪兵, 董绪荣 686

• 通信与网络 •

基于近似熵的 Multi-h CPM 调制识别算法 刘 凯, 赵梦伟, 黄青华 698

OFDM 测距中的最佳轨迹匹配相噪补偿算法 李晓辉, 谢 翊, 石潇竹, 袁江伟 704

结合伪随机特征码的多序列跳频通信方法 王耀北, 全厚德, 孙慧贤, 崔佩璋 711

多模索引调制 OFDM 频谱及能量效率优化方案 庄 陵, 戴 蕾, 刘胜珠, 王光宇 719

基于输出可译集的 LT 码联合度分布优化 戴新颖, 王建萍 727

Systems Engineering and Electronics

Vol .42 No.3

March 2020

CONTENTS

Electronic Technology

Decoupling optimization of frequency diverse array with logarithmically increasing frequency offset	WA NG Bo , XIE Junwei , ZHANG Jing , GE Jia' ang	505
Decomposition of scattering mechanisms based on time slot difference	LI Jianzhou , LIU Xiangwei	513
Influence analysis of atmospheric refraction on elevation-constrained TDOA source localization error and its correction	ZHANG Shuqiang , GUO Fucheng , ZHANG Min , LI Xi	521
Front-door coupling effect of ultra-wideband electromagnetic pulse for FMCW fuze	CHEN Kaibai , GAO Min , ZHOU Xiaodong , CHENG Cheng	528
Phase noise estimation method for RF front-end circuit of GNSS receiver	PAN Dangfei , LIU Wenzhe , GE Jian , YUAN Hong , YUAN Chao	536
Robust multiple mainlobe interferences suppression method	CHEN Zhuo , JIA Weimin , JIN Wei , ZHANG Fenggan	544
Joint sparse representation of hyperspectral image classification based on secondary dictionary	CHEN Shanxue , CHEN Wenwen	550
Image denoising algorithm based on boosting high order non-convex total variation model	LIU Pei , JIA Jian , CHEN Li , AN Ying	557

Sensors and Signal Processing

Coastline detection in polarimetric SAR images using Markov random field segmentation based on mixture Wishart distribution	LIU Chun , BAO Junliang , YANG Jian , MA Wenting , WA NG Jing	568
Pulse repetition frequency design for diving highly squinted synthetic aperture radar mounted on maneuvering platform	DA NG Yanfeng , LIA NG Yi , ZHANG Gang , LIA NG Yujie , ZHANG Yuhong	575
Beam position scheduling method of OTHR based on combined EDF and multiple templates	HAN Wei , WA NG Guoshi , ZHANG Chaowei , YU Zhihui	582
Influence of blinking jamming of dual stealth aircraft on the performance of monopulse radar	BAO Lei , WA NG Chunyang , BAI Juan , ZENG Huiyong	589
Key radar signal fast recognition method based on clustering and time-series correlation	ZHANG Yixiao , GUO Wenpu , KANG Kai , YAO Yunlong , WA NG Pan	597
Estimating structural parameters of ballistic targets based on MIMO -ISAR	HAN Lixun , TIAN Bo , FENG Cunqian	603

Systems Engineering

Optimization of condition-based maintenance strategy for single-unit accelerated degrading systems	CHEN Chuang, LU Ningyun, JIA NG Bin, XING Yin	613
Structure optimization of spare parts supply network based on hyper heuristic algorithm	WANG Yadong, SHI Quan, XIA Wei, CHEN Cai	620
Evaluation method for the supply capability of equipment support resources based on FA -ER	LI Yan, CHEN Yunxiang, LUO Chengkun, CAI Zhongyi	630
Multi-satellite scheduling problem for regional targets with uneven income	YAO Jingyu, JIN Peng, ZHU Waiming, HU Xiaoxuan	638
Bayesian network parameter learning method based on expert priori knowledge and monotonic constraints	ZENG Qiang, HUANG Zheng, WEI Shuhuan	646
Security risk assessment of plateau training for surface-to-air missile equipment	LI Jiakun, LI Yanbin, SONG Yafei	653

Guidance , Navigation and Control

Open-loop PD-type iterative learning control with adaptive nonlinear gain	DAI Mingguang, QI Rong, LI Bingqiang, ZHAO Yiyun	660
Robust adaptive filtering based on maximum entropy method and its application	LUO Kaixin, WU Meiping, FAN Ying	667
Model of generating grid cell based on difference Hebbian learning in brain -inspired navigation	HAN Kun, WU Dewei, LAI Lei	674
Orthogonal transformed fifth-order cubature Kalman filter for navigation	HE Kanghui, DONG Chaoyang	680
Optimal triple-frequency combination observations for BDS-3 derived from a modified kernel-based fuzzy C-means clustering algorithm	TIAN Rui, FAN Xiangxiang, DAI Ying, SUN Xianbing, DONG Xurong	686

Communications and Networks

Multi-h CPM modulation recognition algorithm based on approximate entropy	LIU Kai, ZHAO Mengwei, HUANG Qinghua	698
Phase noise compensation algorithm based on trajectory matching in OFDM ranging	LI Xiaohui, XIE Yi, SHI Xiaozhu, YUAN Jiangwei	704
Multi-sequence frequency hopping communication method combined with pseudo -random feature codes	WANG Yaobei, QUAN Houde, SUN Huixian, CUI Peizhang	711
Optimized scheme for spectrum and energy efficiency of multiple-mode OFDM with index modulation	ZHUA NG Ling, DAI Lei, LIU Shengzhu, WANG Guangyu	719
Optimization of combined degree distribution of LT codes based on output ripple size	DAI Xinying, WANG Jianping	727