

电光与控制

Dianguang yu Kongzhi

第 28 卷 第 5 期 2021 年 5 月

(总第 275 期)

目 次

· 学术研究 ·

- 无人机实时任务规划逻辑架构 张 鹏, 刘 畅, 谢文俊, 郭 庆, 肖宗豪(1)
集群飞行器分层式结构协同导航方法研究 杜君南, 王 融, 熊 智, 刘建业, 陈明星(6)
一种实现多机动目标跟踪的 JPDA-STF 算法 王宝宝, 何 晨, 张 辉, 吴盘龙(11)
多约束条件下的反临近空间拦截弹滑翔段弹道规划 李万礼, 李 炯, 陈文钰, 李明杰, 骆长鑫(14)
弱约束非合作目标轨迹分析技术 李青勇, 何 兵, 朱晓宇(19)
高超声速飞行器鲁棒预测滑模姿态控制方法 陈 园, 周 丽, 刘震鐸, 姚 波, 凌志豪(23)
基于改进凸集投影的亚毫米波全息成像超分辨率算法 邵文浩, 朱 莉, 刘 婕, 邹丽蓉(28)
基于改进的同态滤波和 Retinex 的水下图像增强的算法研究 王红茹, 张 玲, 王 佳, 卢道华(32)
基于颜色描述的快速视频去雾算法 万 隆(36)
一种基于加权 LS-SVM 的复合辨识方法 马丛俊, 王海鹏, 张 旭, 赵 涛, 向国菲, 佃松宜(42)
机械臂自适应非奇异快速终端滑模控制 徐宝珍, 宋公飞, 王 超, 曹广旭(46)
海杂波背景下漂浮小目标检测新算法 唐建军, 梁 浩, 朱张勤, 金 林(51)

· 综述与评论 ·

- 高光谱图像异常目标检测算法研究进展 成宝芝, 赵春晖, 张丽丽(56)

· 工程应用 ·

- 混合 PSO-SQP 算法在航电系统测试性分配中的应用 胡艺馨, 孙毅刚, 赵 珍(60)
相干激光雷达漫反射目标探测参数仿真分析研究 王朝晖, 徐国栋, 仇振安, 郝培育, 蔡 猛, 井晨睿(66)
基于改进 YOLOv3 的机载平台目标检测算法 严开忠, 马国梁, 许立松, 尚海鹏, 于 睿(70)
基于 GNU Radio 的雷达信号处理系统设计实现 李鹏利, 李兴成(75)
基于角速度估计的 MEMS 陀螺随机误差动态滤波方法 刘文超, 郑小兵, 王荣颖, 李 曜(79)
一种 X 波段正交极化偶极子天线阵设计 刘 昂, 李淑华, 李宝鹏, 高伟亮, 张凯旋(85)
基于改进总方差法的 MEMS 陀螺随机误差分析 曹立佳, 王国庆, 刘 洋, 胡 宇(89)
某机载高速影像测量系统精度分析方法及验证 李涵阳, 胡耀升(94)
基于 APU + FPGA 的机载视频和通讯总线处理系统设计 朱鹏程, 胡 娜(98)
基于第一法则的机载飞行管理系统性能数据库应用技术研究 刘利朝, 严林芳(103)
面向民航无线电监测的无人机地面站系统开发 周 超, 贾平法, 叶 佳, 何松儒, 李首庆(107)

本期责任编辑：赵 宁，陈 凌

期刊基本参数：CN 41-1227/TN * 1970 * m * A4 * 110 * zh * P * ¥20.00 * 1500 * 24 * 2021-05

Electronics Optics & Control

Vol. 28 No. 5 May 2021

Contents

• Academic Research •

- Logic Architecture of UAVs' Real-Time Mission Planning ZHANG Peng, LIU Chang, XIE Wenjun, GUO Qing, XIAO Zonghao (1)
Research on Cooperative Navigation of Aircraft Swarm with Hierarchical Structure DU Junnan, WANG Rong, XIONG Zhi, LIU Jianye, CHEN Mingxing (6)
A JPDA-STF Algorithm for Tracking Multiple Maneuvering Targets WANG Baobao, HE Chen, ZHANG Hui, WU Panlong (11)
Gliding Phase Trajectory Planning of Interceptor in Near Space Under Multiple Constraints LI Wanli, LI Jiong, CHEN Wenyu, LI Mingjie, LUO Changxin (14)
A Technology for Analyzing Trajectories of Weakly-Constrained, Non-cooperative Targets LI Qingyong, HE Bing, ZHU Xiaoyu (19)
A Robust Predictive Sliding Mode Attitude Control Method for Hypersonic Vehicles CHEN Yuan, ZHOU Li, LIU Zhenkai, YAO Bo, LING Zhihao (23)
Super-resolution Algorithm of Submillimeter Wave Holography Based on Improved Projections Onto Convex Sets SHAO Wenhao, ZHU Li, LIU Jie, ZOU Lirong (28)
An Underwater Image Enhancement Algorithm Based on Improved Homomorphic Filtering and Retinex WANG Hongru, ZHANG Ling, WANG Jia, LU Daohua (32)
A Fast Video Dehazing Method Based on Color Description WAN Long (36)
A Compound Identification Method Based on Weighted Least Square Support Vector Machine MA Congjun, WANG Haipeng, ZHANG Xu, ZHAO Tao, XIANG Guofei, DIAN Songyi (42)
Adaptive Non-singular Fast Terminal Sliding Mode Control of Manipulator XU Baozhen, SONG Gongfei, WANG Chao, CAO Guangxu (46)
A New Algorithm for Floating Small Target Detection Under Sea Clutter Background TANG Jianjun, LIANG Hao, ZHU Zhangqin, JIN Lin (51)

• Reviews •

- Research Advances of Anomaly Target Detection Algorithms for Hyperspectral Imagery CHENG Baozhi, ZHAO Chunhui, ZHANG Lili (56)

• Engineering Application •

- Application of Hybrid PSO-SQP Algorithm in Testability Allocation of Avionics System HU Yixin, SUN Yigang, ZHAO Zhen (60)
Parameters of Diffuse-Reflection Target Detection of Coherent Lidar: Simulation Analysis and Study WANG Zhaohui, XU Guodong, QIU Zhen'an, HAO Peiyu, CAI Meng, JING Chenrui (66)
Improved YOLOv3 Based Target Detection Algorithm for Airborne Platform YAN Kaizhong, MA Guoliang, XU Lisong, SHANG Haipeng, YU Rui (70)
Design and Implementation of Radar Signal Processing System Based on GNU Radio LI Pengli, LI Xingcheng (75)
MEMS Gyroscope Random Error Dynamic Filtering Based on Angular Velocity Estimation LIU Wenchao, ZHENG Xiaobing, WANG Rongying, LI Xi (79)
Design of an X-band Orthogonal Polarized Dipole Antenna Array LIU Ang, LI Shuhua, LI Baopeng, GAO Weiliang, ZHANG Kaixuan (85)
Gyro Random Error Analysis Based on Modified Total Variance CAO Lijia, WANG Guoqing, LIU Yang, HU Yu (89)
Accuracy Analysis and Verification of an Airborne High-Speed Image Measurement System LI Hanyang, HU Yaosheng (94)
Design of an Airborne Video and Communication Bus Processing System Based on APU + FPGA ZHU Pengcheng, HU Na (98)
On Application of First-Principle Based Onboard FMS Performance Database LIU Lizhao, YAN Linfang (103)
Development of UAV Ground Station System for Civil Aviation Radio Monitoring ZHOU Chao, JIA Pingfa, YE Jia, HE Songru, LI Shouqing (107)