



中文核心期刊 中中国科技论文统计源期刊 中国科学引文数据库来源期刊
中文科技期刊数据库 中国学术期刊(光盘版) 收录期刊
美国《剑桥科学文摘》美国《乌利希期刊指南》 RCCSE中国核心学术期刊
英国《科学文摘》收录期刊

ISSN 1002-0640

CN 14-1138/TJ

火力与指挥控制

FIRE CONTROL & COMMAND CONTROL

2015.5

第40卷 VOL40
第5期 No.5



ISSN 1002-0640

05>
9 771002 064154

北方自动控制技术研究所主办

火力与指挥控制

HUOLI YU ZHIHUI KONGZHI

第 40 卷 第 5 期 (总第 242 期) 月刊 1976 年创刊 国内外公开发行

目 次

综 述

火控系统故障预测与健康管理技术

高美娟, 刘白林, 张振华(1)

理论研究

导弹舵机 MIT-Lyapunov 复合控制研究

何素娟, 张云燕, 曹立学(5)

基于弹道仿真的垂直发射型航空导弹杀伤区模型

陈军, 汪培昇, 张修社, 高晓光, 王小军(8)

基于型号性能指标的武器装备体系作战能力评估方法

张迪, 郭齐胜, 李智国, 白桦(12)

海洋环境对反潜巡逻机声纳浮标搜潜装备的作战保障

吴铭, 吴芳, 高青伟(17)

PHM 在空空导弹勤务保障中的应用

王茜, 李志强, 张孝虎, 荣鹏辉(21)

Duffing 混沌阈值的新定量求解法及其在 WSD 的应用

胡燕燕, 李东生, 曾芳玲, 张诗桂(25)

基于粗糙集理论的飞行轨迹识别

田虎森, 谢寿生, 王磊, 任立通, 王立国(29)

一种小样本数脉冲信号的样本子图分选算法

孟祥豪, 罗景青, 吴世龙(34)

基于 Vague 集投影及距离的空中目标威胁评估方法

冯卉, 毛红保, 郭蓬松(40)

自适应平方根无迹滤波的雷达组网状态估计算法

赵温波, 丁海龙(43)

基于随机集理论的多目标跟踪方法

权宏伟, 李俊华, 彭冬亮(49)

BP 神经网络的弹道导弹态势等级模型

周志强, 钱建刚, 王一舟(53)

基于 GSPN 的舰载服务器系统可靠性建模及分析

李展, 单士华(57)

基于改进型投影算法的装甲分队目标威胁评估

徐克虎, 陈金玉, 张志余, 孔德鹏(61)

预警卫星系统作战效能评估指标体系构建

胡磊, 李昊, 闫世强, 张黎(65)

基于 AM-LFM 和 IRT 的旋转微动目标成像算法

马羸, 张智军, 肖冰松(69)

多波束干扰系统雷达干扰资源优化分配方法

徐源, 王红卫, 陈游, 白玉(74)

新型优化同心筒自力发射流场机理与降温效果

杨风波, 马大为, 乐贵高, 夏倩倩, 胡晓磊(79)

基于向量皮尔森相关系数的组合赋权法

张峰, 谢振华, 程江涛, 崔高伦, 徐衡博(83)

网络化空战中的目标综合价值评价方法

王俊敏, 李向阳, 张杨(87)

基于组合赋权的火箭动力系统性能灰色关联评估

韩晓明, 吴振亚(91)

基于“招标—投标”策略的舰艇编队协同反导优化

..... 马良, 马颖亮, 刘新科(95)

基于相关性的 OFDM 盲识别与参数估计方法

..... 张孟伯, 杨晓静, 张欣冉, 樊斌斌(99)

压制性干扰对地空导弹搜索雷达侦察效能的建模

..... 张玉琳, 蒋里强, 陈磊(104)

电子防空作战中雷达对抗目标威胁分析与评估

..... 金朝, 刘洪亮, 刘道伟, 王成威(108)

ADAMS 的全地形车载火箭炮行进间发射动力学研究

..... 丰佩, 张龙, 崔龙飞(112)

战时装备抢修业务流程框架建模研究

..... 张星, 郝立山, 李华(116)

轮毂电机多轮独立驱动车辆机电联合制动控制策略

..... 燕玉林, 廖自力, 刘春光, 李立宇(120)

基于雷达图法的防空武器系统战斗力可视化评估

..... 成洪俊, 朱雪平(124)

射表误差及对射击精度的影响分析

..... 朱训慧, 赵健康, 闫浩(128)

基于 EVALPSN 的循环式多轿厢电梯避撞设计与实现

..... 赵欣, 欧剑, 李理(131)

工程实践

基于自适应小波阈值的 SAR 图像去噪算法

..... 王蓓, 张根耀, 李智, 王静(135)

改进蚁群算法在 P2P 网络资源搜索中的应用

..... 赵开新, 魏勇, 王东署(139)

基于 Nios II 的 LVDS 图像数据存储转发系统的设计

..... 孟令军, 李加超, 文波, 赵盼盼(143)

战车火炮姿态测量系统原位标定技术和方案设计

..... 黄湘远, 汤霞清, 武萌, 郭理彬(146)

基于 CPN 的 TDRS 操作规划建模与仿真

..... 刘传辉(152)

高炮武器系统虚拟射击试验方法

..... 葛承奎, 朱元昌, 邱彦强, 孟宪国(157)

基于无偏 GM(1,1)幂模型的意图威胁建模

..... 赵雨, 张斌, 康志强, 罗卫平(160)

基于文本水印技术的文本加密算法

..... 郝宇, 姚远(164)

无人机侦察效能研究

..... 王庆江, 彭军, 倪保航, 徐学文, 单鑫(167)

利用固态继电器阵列实现高精度可调直流稳压电源设计

..... 张凯华, 任勇峰(171)

试验技术

低速平台随队干扰编队设计及过程分析

..... 李文鹏, 杨文, 廖明飞, 王杰娟(175)

胶泥缓冲器的非线性刚度的控制机理研究

..... 徐忠四, 刘卫新, 杜文建(179)

下期要目(4)

本期责任编辑 齐浩 刘义平

[期刊基本参数] CN14-1138/TJ * 1976 * m * A4 * 184 * zh * P * ¥20.00 * 2 000 * 44 * 2015-05

Fire Control & Command Control

Vol. 40 No. 5 May. 2015

Contents

SURVEY

Research on Prognostic and Health Management of Fire Control System GAO Mei-juan, LIU Bai-lin, ZHANG Zhen-hua(1)

THEORY RESEARCH

Research on MIT-Lyapunov Blended Control of Missile Electric Servo Actuator HE Su-juan, ZHANG Yun-yan, CAO Li-xue(5)

Model of Killing Zone for Vertical Launching Ship-to-air Missile Based on Trajectory Simulation

..... CHEN Jun, WANG Jin-sheng, ZHANG Xiu-she, GAO Xiao-guang, WANG Xiao-jun(8)

Evaluation Method for Weapon Equipment System of Operation Capability Based on Performance Index of Type

..... ZHANG Di, GUO Qi-sheng, LI Zhi-guo, BAI Hua(12)

Study of Marine Environment Impacting on Battle Safeguard of Sonar of ASW Patrol Aircraft WU Ming, WU Fang, GAO Qing-wei(17)

Study on Application of PHM in Air-to-Air Missile Service Support WANG Qian, LI Zhi-qiang, ZHANG Xiao-hu, RONG Peng-hui(21)

A New Quantitative Study of Solving Duffing Chaotic Threshold and Its Application in WSD

..... HU Yan-yan, LI Dong-sheng, ZENG Fang-ling, ZHANG Shi-gui(25)

Flight Track Recognition Based on Rough Set Theory TIAN Hu-sen, XIE Shou-sheng, WANG Lei, REN Li-tong, WANG Li-guo(29)

A Deinterleaving Method of Pulse Signals with Insufficient Samples Based on Pulse Sequence Subpattern

..... MENG Xiang-hao, LUO Jing-qing, WU Shi-long(34)

Aerial Targets Threat Evaluation Method Based on Projection and Distance of Vague Sets FENG Hui, MAO Hong-bao, GOU Peng-song(40)

Study on State Estimation Algorithm in Radar Networking Based on Adaptive Square Root Unscented Filter ZHAO Wen-bo, DING Hai-long(43)

Multi-target Tracking Based on Random Set Theory QUAN Hong-wei, LI Jun-hua, PENG Dong-liang(49)

Research on Ballistic Missile Situation Grade Model Based on BP Neural Network ZHOU Zhi-qiang, QIAN Jian-gang, WANG Yi-zhou(53)

Modeling and Analysis of Reliability for Shipboard Server System by GSPN LI Zhan, SHAN Shi-hua(57)

Target Threat Assessment of Armored Brigade Based on Modified Projection Algorithm

..... XU Ke-hu, CHEN Jin-yu, ZHANG Zhi-yu, KONG De-peng(61)

Building of Operational Effectiveness Evaluation Index System of Early Warning Satellite System HU Lei, LI Hao, YAN Shi-qiang, ZHANG Li(65)

Spinning Target Imaging algorithm Based on Amplitude Modulation–Linear Frequency Modulation and Inverse Radon Transform

..... MA Ying, ZHANG Zhi-jun, XIAO Bing-song(69)

Research on Method of Radar Jamming Resource Distribution in Multi-beam Jamming Systems

..... XU Yuan, WANG Hong-wei, CHEN You, BAI Yu(74)

Research on Flow Field Mechanism and Cooling Effect of a New Optimized Concentric Canister Launcher

..... YANG Feng-bo, MA Da-wei, LE Gui-gao, XIA Qian-qian, HU Xiao-lei(79)

Based on the Pearson Correlation Coefficient of Vector ZHANG Feng, XIE Zhen-hua, CHENG Jiang-tao, CUI Gao-lun, XU Heng-bo(83)

Target Evaluation Method Based on Networked Air Combat WANG Jun-min, LI Xiang-yang, ZHANG Yang(87)

Gray Correlation Evaluation of Rocket Power System Performance Based on Combinational Weight HAN Xiao-ming, WU Zhen-ya(91)

Based on Strategy of “Invite Public Bidding” Fleet Cooperative Anti-missile Optimization MA Liang, Ma Ying-liang, Liu Xin-ke(95)

Blind Recognition and Parameter Estimation for OFDM Signals Based on Correlation

..... ZHANG Meng-bo, YANG Xiao-jing, ZHANG Xin-ran, FAN Bin-bin(99)

Modeling and Calculation for Influence of Blanket Jamming on Surface-to-Air Missile Indication Radar's Reconnaissance Efficiency

..... ZHANG Yu-lin, JIANG Li-qiang, CHEN Lei(104)

Analysis and Assessment of Radar–Countermeasure Target Threaten in Electronic Air-Defense Operation

..... JIN Zhao, LIU Hong-liang, LIU Dao-wei, WANG Cheng-Wei(108)

Dynamic Simulation Analysis of Rocket Launcher Launching on Move FENG Pei, ZHANG Long, CUI Long-fei(112)

Modeling of Equipment Rush Repairing Work Process in Wartime ZHANG Xing, HAO Li-shan, LI Hua(116)

Control Strategy Study on Combined Mechanical and Electrical Braking of Several Rounds of Independent Wheel Hub Motor Driven Vehicles

..... YAN Yu-lin, LIAO Zi-li, LIU Chun-guang, LI Li-yu(120)

Visual Evaluation of Warfighting Capability of Air Defense Weapon System Based on Radar Chart Method

..... CHENG Hong-jun, ZHU Xue-ping(124)

Influence Analysis of Firing Table Error and for Fire Accuracy ZHU Xun-hui, ZHAO Jian-kang, YAN Hao(128)

Collision Avoidance Design and Implementation Based on EVALPSN for Circulatory Multi-car Elevator ZHAO Xin, OU Jian, LI Li(131)

TEST TECHNIQUE

A SAR Image De-Noising Algorithm Based on Adaptive Wavelet Threshold WANG Bei, ZHANG Gen-yao, LI Zhi, WANG Jing(135)

Study on Resource Search in P2P Networks Based on Improved Ant Algorithm ZHAO Kai-xin, WEI Yong, WANG Dong-shu(139)

Design of LVDS Image Data Storage and Retransmit System Based on Nios II MENG Ling-jun, LI Jia-chao, WEN Bo, ZHAO Pan-pan(143)

In-situ Calibration Technology and Design for Armed Chariot Gun Attitude Measuring System

..... HUANG Xiang-yuan, TANG Xia-qing, WU Meng, GUO Li-bin(146)

Simulation and Modeling of Operation Planning for Tracking and Data Relay Satellite Using Colored Petri Net LIU Chuan-hui(152)

Research on Virtual Firing Test Method for Anti-aircraft Weapon System

..... GE Cheng-long, ZHU Yuan-chang, DI Yan-qiang, MENG Xian-guo(157)

Mathematical Models for Target Maneuvering Intention Based on Unbiased GM(1,1) Power Model

..... ZHAO Yu, ZHANG Bin, KANG Zhi-Qiang, LUO Wei-Ping(160)

Text Encryption Algorithm Based on Text Watermarking HAO Yu, YAO Yuan(164)

Research on Effectiveness for UAV to Execute Reconnaissance Mission

..... WANG Qing-jiang, PENG Jun, NI Bao-hang, XU Xue-wen, SHAN Xin(167)

Design of High Precision Adjustable DC Regulated Power Supply Used Solid State Relay ZHANG Kai-hua, REN Yong-feng(171)

ENGINEERING PRACTICE

Formation Design and Process Analysis of Escort Jamming System Installed in Low-speed Platform

..... LI Wen-peng, YANG Wen, LIAO Ming-fei, WANG Jie-juan(175)

Research on Control Mechanism for Nonlinear Stiffness of Elastomer Damper XU Zhong-si, LIU Wei-xin, DU Wen-jian(179)

Power Your

Embedded Applications



ETX



PC/104



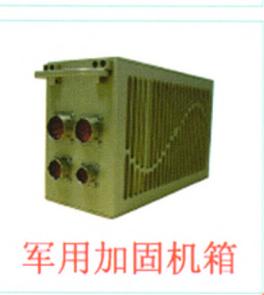
加固液晶屏



COM Express



Q7 CPU模块



军用加固机箱



强固型 高性能 低功耗 宽温环境长期稳定工作

MSP 航天捷越
Masterpiece

公司总部

地址：北京市海淀区中关村南大街

甲6号铸诚大厦B座6层

电话：010-51581354

010-51581364

传真：010-51581374

网址：www.msptc.com

邮箱：masterpiece@msptc.com

邮箱：masterpiece@msptc.com

西安分公司

地址：陕西省西安市融鑫路3号

电话：029-88278851

传真：029-88273960

南京办事处

地址：南京市珠江路成贤街50号

成贤大厦407A

电话：025-83001754

电话：025-83001754