



中文核心期刊 中国指挥与控制学会会刊 中国科技论文统计源期刊
中国科学引文数据库来源期刊 军事学核心期刊 中文科技期刊数据库
中国学术期刊(光盘版)收录期刊 RCCSE中国核心学术期刊 美国
《剑桥科学文摘》美国《乌利希期刊指南》英国《科学文摘》收录期刊

ISSN 1002-0640

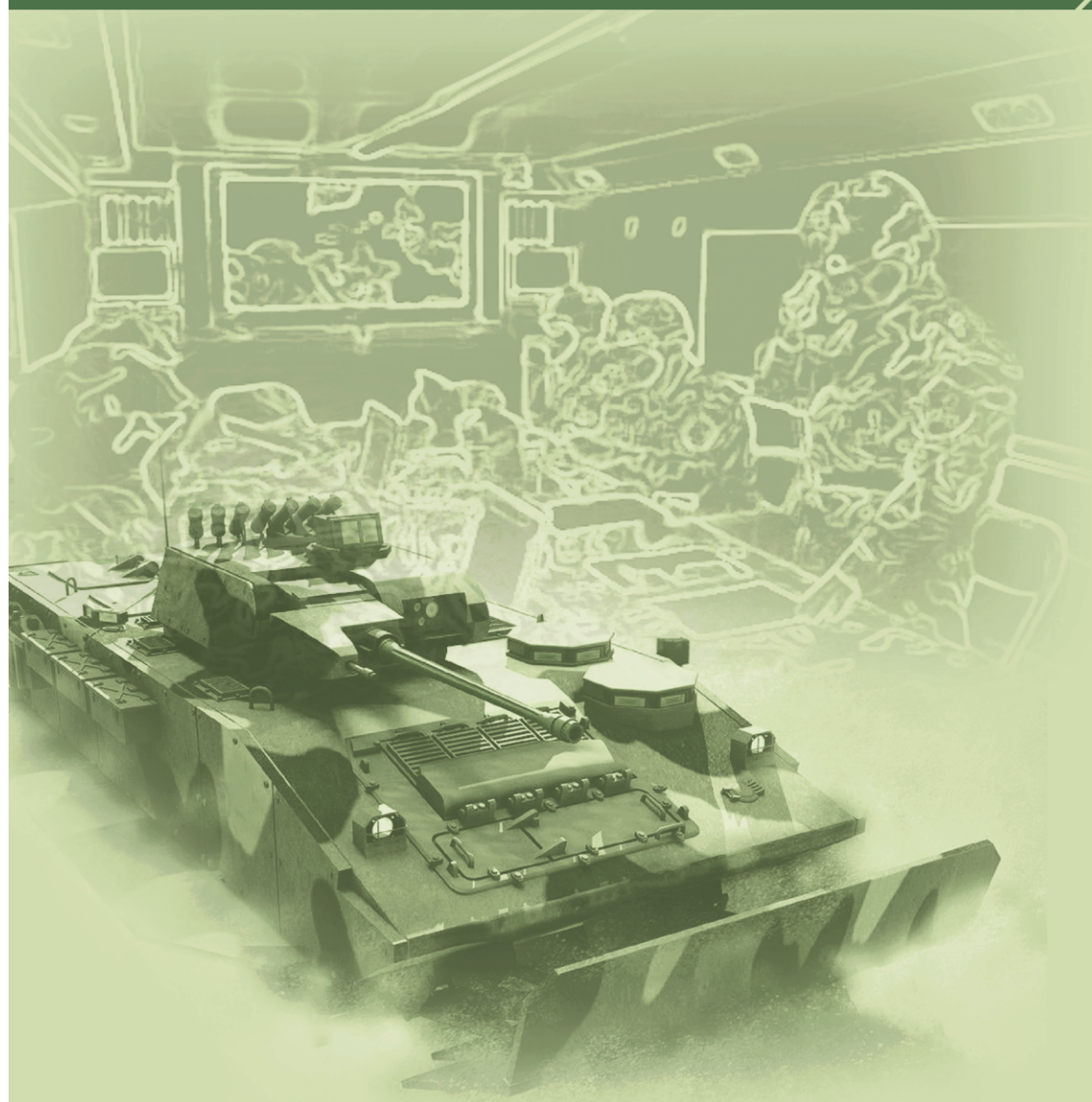
CN 14-1138/TJ

火力与指挥控制

FIRE CONTROL & COMMAND CONTROL

2020.9

第45卷 VOL45
第9期 No.9



ISSN 1002-0640



北方自动控制技术研究所主办

火力与指挥控制

HUOLI YU ZHIHUI KONGZHI

本刊名由张爱萍将军题写

第 45 卷 第 9 期 (总第 306 期)

月刊 1976 年创刊 国内外公开发行

目次

综述	徐安,陈星,李战武,胡晓东(97)
人工智能在装甲火力与指挥控制领域的应用	网络空间攻防对联合作战体系支援度评估研究
……王明,武富春,范文超,王淑娟,高飞,许典(1)	……陈宣汝,沈建京(103)
理论研究	两栖作战武装直升机伴随护航运输直升机协同引导技术
基于信誉评估的 Ad hoc 分布式入侵检测	……樊博,韦鹏飞(111)
……陈赵懿,高秀峰,王帅,韩月明(6)	军事智能博弈对抗系统设计框架研究
不确定环境下编队协同信息交互优先权模型	……李航,刘代金,刘禹(116)
……钟麟,佟明安,张世清,李盛(12)	多旋翼飞行器的三维时变编队量化控制
地空导弹四极电磁发射装置的仿真与分析	……史浩宇(122)
……崔孟阳,王学智,刘松毅,丁日显,刘少伟,薛景纯(17)	工程实践
基于组合赋权和模糊灰色聚类的武器系统网络安全评估	基于复杂网络的网络空间攻防系统建模方法
……胡磊,李海龙,董思岐(22)	……邢积超,陈楚湘,朱兆梁(129)
飞翼无人机四维非线性反步制导律设计	基于多核架构的遥测图像压缩存储系统的实现
……杨雷恒,岳源,封承霖,王昭质,夏雁博(29)	……杨耀森,李博,孟浩,冯小琴(135)
多 UAV 攻击移动目标的协同任务分配与航迹规划	基于视觉导引与机器人的自动对准策略
……陈侠,刘永泰(35)	……张弛,普杰信,牛新月(140)
结合 NSCT 和 TPCA 的 SAR 图像目标识别	基于激光雷达的无人机仿地飞行系统设计与实现
……张伟昌,王文政,代作松(41)	……林峰,石田松,卢艳军,张晓东(146)
基于改进 ACO 的战后物资回收车辆路径优化	压力仪表设备全能检定装置研究
……孟小玲,温海骏,曾艾婧,邵延君(47)	……郭晓冉,张军,雷正伟,华翔,刘福(152)
基于机器学习的鱼雷推进控制用镁海水电池性能预测	基于 Android 空投物资搜索系统设计与实现
……刘笑达,侯建鹏,阴明,王志伟,侯利锋,卫英慧(52)	……康静,胡海燕,郭钟剑,沈玲,孙林(157)
基于空中通信中继的预警机配置研究	迫击炮新型瞄准系统安装托架结构模态与强度分析
……崔凯,沈治河,杨兴宝,朴成日,张国(58)	……寇海军,赵刚,王鹏,邸庆勋,刘小军(161)
基于到达时间测距的二阶规划定位算法	多轮独立电驱车辆直接横摆力矩模糊控制方法
……洪贵华(63)	……张征,马晓军,陈路明,刘春光(166)
耦合内弹道的膨胀波火炮发射过程流场仿真分析	改进遗传算法在强边界路径规划中的应用
……郭张霞,赵秀和,范光明,罗鹏,赵彦(67)	……冯培伦,于小洁,刘强,何龙,高丽华(170)
模糊切换分布参数系统的非脆弱控制器设计	试验技术
……付俊,刘俊辉,朱阳陈(72)	装甲车辆火炮角速度测试装置的设计与实现
基于组合滤波设计的背景噪声归一化方法	……李远哲,裴金顶,向亮,王兆祥,贺海文(174)
……李伟,陈万里,柴远波(77)	基于信号博弈的端信息跳变同步策略
一种反辐射无人机抗异步闪烁诱饵诱偏方法	……王志屹,王刚,陈彤睿,马润年(181)
……张逸楠,彭世葵,冷毅(83)	研究简报
基于需求满足度的潜艇对空探测预警能力分析	基于方位信息的编队多诱饵协同水声对抗方法
……周荣基,邹强,宋佳明,尹肖云,孙凡(90)	……夏志军,杜选民,章新华,张忆(186)
基于战术攻击区的超视距空战态势评估方法	下期要目(128)

本期责任编辑 张宇燕,刘义平

[期刊基本参数] CN14-1138/TJ * 1976 * m * A4 * 190 * zh * P * ¥60.00 * 1 500 * 34 * 2020-09

Fire Control & Command Control

Vol. 45 No. 9 Sep. 2020

Contents

SURVEY

Application of Artificial Intelligence in Armored Vehicle Fire Control and Command Control
..... WANG Ming, WU Fu-chun, FAN Wen-chao, WANG Shu-juan, GAO Fei, XU Dian(1)

THEORY RESEARCH

Distributed Intrusion Detection of Ad hoc Network Based on Reputation CHEN Zhao-yi, GAO Xiu-feng, WANG Shuai, HAN Yue-ming(6)
Study on Information Interactive Prioritization Model for Team Cooperative Air Combat Under Conditions of Uncertainty
..... ZHONG Lin, TONG Ming-an, ZHANG Shi-qing, LI Sheng(12)

Simulation and Analysis of Quadrupole Electromagnetic Launcher for Surface-to-air Missile
..... CUI Meng-yang, WANG Xue-zhi, LIU Song-yi, DING Ri-xian, LIU Shao-wei, XUE Jing-chun(17)

Weapon System Network Security Assessment Based on Combination Weighting and Fuzzy Gray Clustering HU Lei, LI Hai-long, DONG Si-qi(22)
Design of 4-D Nonlinear Backstepping Guidance Law for Flying Wing UAV
..... YANG Lei-heng, YUE Yuan, FENG Cheng-lin, WANG Zhao-zhi, XIA Yan-bo(29)

Cooperative Task Assignment and Track Planning for Multi-UAV Attack Mobile Targets CHEN Xia, LIU Yong-tai(35)
Target Recognition of SAR Images Via Combination of NSCT and TPCA ZHANG Wei-chang, WANG Wen-zheng, DAI Zuo-song(41)

Vehicle Path Optimization for Post-war Material Recovery Based on Improved ACO
..... MENG Xiao-ling, WEN Hai-jun, ZENG Ai-jing, SHAO Yan-jun(47)

Based on Machine Learning Seawater Batteries of Performance Prediction for Torpedo Propulsion Control
..... LIU Xiao-da, HOU Jian-peng, YIN Ming, WANG Zhi-wei, HOU Li-feng, WEI Ying-hui(52)

Research on Early Warning Aircraft Configuration Based on Air Communication Relay
..... CUI Kai, SHEN Zhi-he, YANG Xing-bao, PIAO Cheng-ri, ZHANG Guo(58)

TOA-second-order Programming-based Localization for Wireless Sensor Networks HONG Gui-hua(63)
Coupling Rarefaction Wave Gun Launch Process of Interior Ballistic Flow Field Simulation Analysis
..... GUO Zhang-xia, ZHAO Xiu-he, FAN Guang-ming, LUO Peng, ZHAO Yan(67)

Non-fragile Proportional Differential Controller Design for Fuzzy Switched Distributed Parameter Systems ... FU Jun, LIU Jun-hui, ZHU Yang-chen(72)

Background Noise Normalization Method Based on Combinational Filter Design LI Wei, CHEN Wan-li, CHAI Yuan-bo(77)

A Counteracting Asynchronous Blinking Decoys Inducing Approach for ARUAV ZHANG Yi-nan, PENG Shi-rui, LENG Yi(83)

Analysis of Submarine-to-air Detection Warning Capability Based on Requirement Satisfaction
..... ZHOU Rong-ji, ZOU Qiang, SONG Jia-ming, YIN Xiao-yun, SUN Fan(90)

A Method of Situation Assessment for Beyond-visual-range Air Combat Based on Tactical Attack Area
..... XU An, CHEN Xing, LI Zhan-wu, HU Xiao-dong(97)

Support Degree Evaluation of Cyberspace Operations to Joint Operations System CHEN Xuan-ru, SHEN Jian-jing(103)

Cooperative Guidance Technique on Armed Helicopter Accompany the Convoy of Transport Helicopters in Amphibious Warfare
..... FAN Bo, WEI Peng-fei(111)

Architecture Design Research of Military Intelligent Wargame System LI Hang, LIU Dai-jin, LIU Yu(116)

Quantitative Control of Three-dimensional Time-varying Formation for Multi-rotor Aircraft SHI Hao-yu(122)

ENGINEERING PRACTICE

Modeling Method of Cyberspace Operation Systems Based on Complex Networks XING Ji-chao, CHEN Chu-xiang, ZHU Zhao-liang(129)

Implementation of Telemetry Image Compression Storage System Based on Multi-core Architecture
..... YANG Yao-sen, LI Bo, MENG Hao, FENG Xiao-qin(135)

An Autonomous Robotic Alignment Strategy Based on Visual Guidance ZHANG Chi, PU Jie-xin, NIU Xin-yue(140)

Design and Implementation of UAV's Terrain Following System Based on Lidar LIN Feng, SHI Tian-song, LU Yan-jun, ZHANG Xiao-dong(146)

Research on Omnipotent Verification Device for Pressure Instrument Equipment
..... GUO Xiao-ran, ZHANG Jun, LEI Zheng-wei, HUA Xiang, LIU Fu(152)

Design and Implement of Airdrop Supplies Search System on Android Platform
..... KANG Jing, HU Hai-yan, GUO Zhong-jian, SHEN Ling, SUN Lin(157)

Modal and Strength Analysis for the Mounting Bracket of a New Mortar Aiming System
..... KOU Hai-jun, ZHAO Gang, WANG Peng, DI Qing-xun, LIU Xiao-jun(161)

Fuzzy Control Method of DYC for Multi-wheel Electric Drive Vehicle ZHANG Zheng, MA Xiao-jun, CHEN Lu-ming, LIU Chun-guang(166)

Research on the Application of Improved Genetic Algorithm in Strong Boundary Path Planning
..... FENG Pei-lun, YU Xiao-jie, LIU Qiang, HE Long, GAO Li-hua(170)

TEST TECHNIQUE

Design of Testing Device for Artillery Angular Velocity of Armored Vehicle
..... LI Yuan-zhe, PEI Jin-ding, XIANG Liang, WANG Zhao-xiang, HE Hai-wen(174)

Synchronized Strategies of End-hopping Based on Signaling Game WANG Zhi-yi, WANG Gang, CHEN Tong-rui, MA Run-nian(181)

RESEARCH BULLETIN

Cooperative Underwater Acoustic Countermeasure Method of Ship Formation Using Multi-decoy Based on Bearing Information
..... XIA Zhi-jun, DU Xuan-min, ZHANG Xin-hua, ZHANG Yi(186)