



ISSN 0253-987X  
CN 61-1069/T  
CODEN HCTPDW

# 西安交通大学学报

JOURNAL OF XI'AN JIAOTONG UNIVERSITY

1960年3月创刊（月刊） 2014年6月10日出版

2014

Vol. 48 No.

6



作者已将版权转给本刊  
未经本刊许可不得转载

## 目次

改进的无线传感器网络无偏距离估计与节点定位算法

..... 魏全瑞,刘俊,韩九强 (1)

有向网络兴趣社区的快速挖掘算法及其在僵尸粉检测中的应用

..... 王晨旭,秦涛,管晓宏,周亚东 (7)

延迟容忍网络中基于地点偏好的社会感知多播路由协议设计

..... 陈家旭,唐亚哲,胡成臣,王换招 (13)

利用空间序列描述子的快速准确的图像配准算法

..... 靳峰,冯大政 (19)

采用光学成像法的航空稳定平台振动幅度检测

..... 王书民,张爱武,胡少兴,孟宪刚,段乙好,孙卫东 (25)

一种无线信道密钥容量求解方法

..... 蔡文炳,付红双,张水莲,孙有铭,于大鹏 (31)

多类型煤炭海运运输库存管理一体化模型

..... 董皎皎,马瑞瑞,翟桥柱,卫军胡,赖菲,王虹,管晓宏,王智微 (37)

气象过程信息挖掘与输电线路覆冰预测

..... 侯雨伸,王秀丽 (43)

新型移相式屏蔽电动机屏蔽套涡流与温升分析

..... 安跃军,张强,李文瑞,师勇 (50)

非自治铁磁谐振电路过电压脉冲时滞同步抑制方法研究

..... 惠萌,刘盼芝,白璘,李艳波,武奇生 (55)

无隔离三相逆变器两种直流分量抑制策略对比

..... 吴彬,揭贵生,王恒利,阳习党,朱威,陆明科 (60)

数控机床基础大件精度保持性研究

..... 胡敏,余常武,张俊,赵万华,寸花英,袁胜万 (65)

四次拟 Bézier 旋转曲面的构造技术

..... 胡钢,宋伟杰 (74)

单级压力调节阀的阻尼孔射流响应特性分析

..... 闵为,冀宏,王峥嵘,王金林 (80)

高速角接触轴承油气润滑两相流动特性数值研究

..... 翟强,朱永生,闫柯,王宁,刘成,王东峰 (86)

内送粉超音速等离子喷涂颗粒飞行状态分析

..... 谭超,魏正英,魏培,刘伯林,付丽倩,韩志海 (91)

外加磁场对小功率电感耦合微波微等离子体激励的影响

..... 廖斌,王新刚,黄加华,朱守正 (98)

面向集成电路的大尺寸单晶石墨烯的可控制备方法

..... 李昕,张娟,李全福,楚朋志,王小力,刘卫华 (103)

结构参数对局部弹性翼型气动性能的影响规律

..... 雷鹏飞,张家忠,贾艳俊 (110)

出流比及旋转数对回转通道流动换热的影响

..... 赵曙,朱惠人,郭涛,张丽,周志翔 (117)

掺氢对二甲醚预混层流燃烧特性的影响

..... 陈朝阳,耿莉敏,巩静,汤成龙,张春化 (122)

磁流变液双质量飞轮扭振减振特性研究

..... 毛阳,陈志勇,史文库,邬广铭,王世朝,孙宁 (127)

大脑皮层-肌肉交互作用与注意力关系的实验研究

..... 郑杨,王刚,徐进,秦永辉,王珏 (134)

CONTENTS

An Improved DV-hop Node Localization Algorithm Based on Unbiased Estimation for Wireless Sensor Networks  
 ..... WEI Quanrui, LIU Jun, HAN Jiuqiang ( 1 )

A Fast Mining Algorithm for Interest Community in Directed Networks and Its Application to Detection of Zombie Fans  
 ..... WANG Chenxu, QIN Tao, GUAN Xiaohong, ZHOU Yadong ( 7 )

Design of a Social-Aware Multicast Routing Protocol Based on Location Preference in Delay Tolerant Networks  
 ..... CHEN Jiaxu, TANG Yazhe, HU Chengchen, WANG Huanzhao (13)

A Fast and Accurate Image Registration Algorithm Using Space Order Descriptor ..... JIN Feng, FENG Dazheng (19)

Vibration Amplitude Detection of Aero Stabilization Platform Adopting the Optical Imaging Method  
 ..... WANG Shumin, ZHANG Airwu, HU Shaoxing, MENG Xiangang, DUAN Yihao, SUN Weidong (25)

A Solution of the Secret Key Capacity for Wireless Channel  
 ..... CAI Wenbing, FU Hongshuang, ZHANG Shuilian, SUN Youming, YU Dapeng (31)

Integration Model of Inventory and Transportation Decisions for Multiple Coal Shipping ..... DONG Jiaojiao,  
 MA Ruirui, ZHAI Qiaozhu, WEI Junhu, LAI Fei, WANG Hong, GUAN Xiaohong, WANG Zhiwei (37)

Meteorological Processes Information Mining and Transmission Lines Icing Forecast  
 ..... HOU Yushen, WANG Xiuli (43)

Eddy Losses and Temperature Rise on Shielded Can in Canned Motor with New Phase-Shifted Structure  
 ..... AN Yuejun, ZHANG Qiang, LI Wenrui, SHI Yong (50)

Overvoltage Suppression by Impulsive Time-Lagging Synchronization of Non-Autonomous Ferroresonance Chaotic Circuit  
 ..... HUI Meng, LIU Panzhi, BAI Lin, LI Yanbo, WU Qisheng (55)

Comparison Between Two Strategies for Suppressing DC Bias in Three-Phase Inverter Without Output Transforms  
 ..... WU Bin, JIE Guisheng, WANG Hengli, YANG Xidang, ZHU Wei, LU Mingke (60)

Accuracy Stability for Large Machine Tool Body  
 ..... HU Min, YU Changwu, ZHANG Jun, ZHAO Wanhua, CUN Huaying, YUAN Shengwan (65)

New Method for Constructing Quartic Quasi-Bézier Rotation Surfaces with Multiple Shape Parameters  
 ..... HU Gang, SONG Weijie (74)

Orifice Jet Response Characters in Pressure Regulating Valve  
 ..... MIN Wei, JI Hong, WANG Zhengrong, WANG Jinlin (80)

Numerical Investigation of Two-Phase Flow for the Oil-Air Lubrication Inside an Angular Contact Ball Bearing  
 ..... ZHAI Qiang, ZHU Yongsheng, YAN Ke, WANG Ning, LIU Cheng, WANG Dongfeng (86)

In-Flight Particle Behavior in Internal Powder Injection Supersonic Plasma Spray  
 ..... TAN Chao, WEI Zhengying, WEI Pei, LIU Bolin, FU Liqian, HAN Zhihai (91)

Effects of Magnetic Field on Low-Power Inductively-Coupled Microwave Micro-Plasma Excitation  
 ..... LIAO Bin, WANG Xingang, HUANG Jiahua, ZHU Shouzheng (98)

A Controllable Preparation Method for IC-Oriented Large Scale Single Crystal Graphene  
 ..... LI Xin, ZHANG Juan, LI Quanfu, CHU Pengzhi, WANG Xiaoli, LIU Weihua (103)

Influences of Local Flexible Airfoil Parameters on Aerodynamic Performance  
 ..... LEI Pengfei, ZHANG Jiazhong, JIA Yanjun (110)

Effects of Flow Distribution Ratio and Rotation Number on Flow and Heat Transfer of Rotating Internal Cooling Channels  
 ..... ZHAO Shu, ZHU Huiren, GUO Tao, ZHANG Li, ZHOU Zhixiang (117)

Influence of Hydrogen Addition on Combustion Characteristics of Premixed Laminar Dimethyl Ether Flames  
 ..... CHEN Zhaoyang, GENG Limin, GONG Jing, TANG Chenglong, ZHANG Chunhua (122)

Torsional Vibration Damping Characteristics of Magneto-Rheological Fluid Dual Mass Flywheel  
 ..... MAO Yang, CHEN Zhiyong, SHI Wenku, WU Guangming, WANG Shichao, SUN Ning (127)

Experimental Research on Relationship Between Attention and Cortex-Muscle Interaction  
 ..... ZHENG Yang, WANG Gang, XU Jin, QIN Yonghui, WANG Jue (134)



## 本刊被下列数据库列为刊源

美国《工程索引》(Ei核心)  
美国《化学文摘》(CA)  
英国《科学文摘》(SA)  
俄罗斯《文摘杂志》(AJ)  
美国《金属文摘》(MA)  
美国《数学评论》(MR)  
美国《剑桥科学文摘》(CSA)  
德国《数学文摘》(MATH)  
《中国科学引文数据库》  
《中国学术期刊综合评价数据库》  
《中国科技论文统计与分析》(年度报告)  
被《中文核心期刊要目总览》列为核心期刊

本刊曾荣获中国国际影响力优秀学术期刊、全国高校优秀科技期刊一等奖、中国高校精品科技期刊、中国精品科技期刊和百种中国杰出学术期刊等称号。



# 西安交通大学学报

XI'AN JIAOTONG DAXUE XUEBAO

1960年3月创刊(月刊) 2014年6月10日出版  
Vol.48 No.6 第48卷 第6期

封面设计: 张宏悦

Sponsor: Xi'an Jiaotong University  
Editor-in-Chief: Prof. Tao Wenquan  
Editor and Publisher: Editorial Office of  
Journal of Xi'an Jiaotong University  
Address: Xi'an 710049, China  
E-mail: xuebao@mail.xjtu.edu.cn  
Overseas Sale: China National Publishing  
Industry Trading Corporation  
(P.O.Box 782, Beijing 100011, China)

主管单位: 中华人民共和国教育部  
主办单位: 西安交通大学  
主 编: 陶文铨 院士  
编辑出版: 西安交通大学学报编辑部  
西安市咸宁西路28号 邮政编码 710049  
电话: (029)82668337 82667978  
印 刷 者: 西安政治学院印刷厂  
国内发行: 陕西省报刊发行局(全国邮局预订)  
海外发行: 中国出版对外贸易总公司  
(北京782信箱, 邮政编码 100011)

刊号: ISSN 0253-987X  
CN 61-1069/T

邮发代号: 国内52-53  
国外BK61007

定价: 18.00元/期  
216.00元/年

ISSN 0253-987X



9 770253 987144