



美国《剑桥科学文摘(自然科学)》(CSA(NS))收录期刊
荷兰《文摘与引文数据库》(Scopus)收录期刊
中国科学引文数据库(CSCD)核心期刊
《中文核心期刊要目总览》核心期刊
中国科技核心期刊
RCCSE中国核心学术期刊(A)

ISSN 1006-754X
CN 33-1288/TH
CODEN GSXOAB

工程设计学报

CHINESE JOURNAL OF ENGINEERING DESIGN



浙江大学 主办
中国机械工程学会



Vol.26 No.5

Oct. 2019

中国·杭州 HANGZHOU, CHINA

工程设计学报

Gongcheng Sheji Xuebao

第 26 卷 第 5 期

2019 年 10 月

目 次

设计理论与方法学

计算机辅助 Watt 型平面六连杆机构分支自动识别王 君,冯康瑞,程群超,李文涛,汪 泉(497)

创新设计

新型形状记忆合金驱动器与三指灵巧手设计李达宏,金樱子,郭振武,王斌锐(506)

新型平置电动防护门设计和仿真分析江 漪,彭 飞,卢屹东,张瑞龙(513)

减振型三叉式万向联轴器结构及其疲劳寿命分析李松梅,郑 哲,李帅帅,常德功(520)

智能设计

基于深度学习算法的矿用巡检机器人设备识别卢万杰,付 华,赵洪瑞(527)

优化设计

整体式卡瓦齿槽结构优化郝地龙,何 霞,王国荣,易建国,陈彰斌(534)

建模、仿真、分析与决策

基于 EAHP-FCE 方法的民机修理级别确定模型李耀华,张海峰,魏启东(544)

基于 Plant Simulation 的智能制造测试床仿真模型设计与应用郑 楠,岳 磊(552)

基于机电-刚柔耦合特性的进给系统动态误差影响因素分析.....罗茹楠,牛文铁,王晨升(561)

粗糙表面固态耦合超声检测研究唐东林,汤炎锦,胡 琳,吴薇萍,龙再勇,丁 超(570)

整机和系统设计

菠萝自动采摘收集机结构设计与分析姜 涛,郭安福,程学斌,张 达,李 进(577)

基于 Stewart 并联机构的直驱式波能转换器能量转换性能研究姚 涛,王志华,段国林,王 涛(587)

双十字压电振子同型弯振模态驱动的平面超声电机贺红林,江 涛,付 磊,刘浩康(594)

通用零部件设计

基于 RBF 神经网络的液黏调速离合器活塞位移控制器设计秦永峰,龚国芳,王 飞,孙辰晨(603)

圆柱滚子电磁推进装置仿真与推进实验分析杨 蕾,任成祖(611)

冗余驱动 2SPR-2RPU 并联机构的运动静力学及奇异性研究王晓明,崔国华,侯红娟,刘 健(619)

本刊被评为“2018 年度中国高校百佳科技期刊” (512)

本刊被收录为 2019—2020 年度中国科学引文数据库(CSCD)核心库期刊 (569)

《中文核心期刊要目总览》入编通知 (封三)

期刊基本参数:CN 33-1288/TH * 1994 * b * A4 * 130 * zh * P * ¥30.00 * 2000 * 16 * 2019-10

本期责任编辑:陈 波 吴 云

Contents

Design Theory and Methodology

- Computer-aided Watt-type planar six-bar linkage branch automatic identification
.....WANG Jun, FENG Kang-rui, CHENG Qun-chao, LI Wen-tao, WANG Quan (497)

Innovative Design

- Design of new shape memory alloy actuator and three-fingered dexterous hand
.....LI Da-hong, JIN Ying-zi, GUO Zhen-wu, WANG Bin-rui (506)
- Design and simulation analysis of new horizontal electric blast door
.....JIANG Yi, PENG Fei, LU Yi-dong, ZHANG Rui-long (513)
- Structure and fatigue life analysis of damping type tripod universal joint
.....LI Song-mei, ZHENG Zhe, LI Shuai-shuai, CHANG De-gong (520)

Intelligent Design

- Equipment recognition of mining patrol robot based on deep learning algorithm
.....LU Wan-jie, FU Hua, ZHAO Hong-rui (527)

Optimization Design

- Structure optimization of integral slip groove
.....HAO Di-long, HE Xia, WANG Guo-rong, YI Jian-guo, CHEN Zhang-bin (534)

Modeling, Simulation, Analysis and Decision

- Model for determination of civil aircraft level of repair based on EAHP-FCE method
.....LI Yao-hua, ZHANG Hai-feng, WEI Qi-dong (544)
- Simulation model design and application of smart manufacturing test bed based on Plant Simulation
.....ZHENG Nan, YUE Lei (552)
- Analysis of influencing factors of dynamic error of feed system based on electromechanical-rigid-flexible coupling characteristics
.....LUO Ru-nan, NIU Wen-tie, WANG Chen-sheng (561)
- Research on rough surface solid-coupled ultrasonic test
.....TANG Dong-lin, TANG Yan-jin, HU Lin, WU Wei-ping, LONG Zai-yong, DING Chao (570)

Whole Machine and System Design

- Structural design and analysis of pineapple automatic picking-collecting machine
.....JIANG Tao, GUO An-fu, CHENG Xue-bin, ZHANG Da, LI Jin (577)
- Study on energy conversion performance of direct-driven wave energy converter based on Stewart parallel mechanism
.....YAO Tao, WANG Zhi-hua, DUAN Guo-lin, WANG Tao (587)
- Planar ultrasonic motor driven by same type bending modes of dual-cross piezoelectric vibrator
.....HE Hong-lin, JIANG Tao, FU Lei, LIU Hao-kang (594)

General Parts Design

- Displacement controller design for piston of hydro-viscous clutch based on RBF neural network
.....QIN Yong-feng, GONG Guo-fang, WANG Fei, SUN Chen-chen (603)
- Simulation and propulsion experimental analysis of electromagnetic propulsion device for cylindrical roller
.....YANG Lei, REN Cheng-zu (611)
- Research on kinematic statics and singularity of redundant drive 2SPR-2RPU parallel mechanism
.....WANG Xiao-ming, CUI Guo-hua, HOU Hong-juan, LIU Jian (619)