



ISSN 0577-6686
CODEN CHHKA2

机械工程学报[®]

JOURNAL OF MECHANICAL ENGINEERING



CMES 中国机械工程学会主办

半月刊 | 13 / 2012
第 48 卷

ISSN 0577-6686



9 770577 668125

万方数据

机械工程学报

JIXIE GONGCHENG XUEBAO

2012年第48卷第13期 7月5日出版

目次

机械学

机构学及机器人

- 基于避障准则的双臂手移动机器人桁架内运动规划 吴伟国 吴鹏 (1)
- 基于心形孔的Hy-Vo齿形链的啮合分析及其设计方法 孟繁忠 程亚兵 钱江 (8)
- 基于杆组邻接矩阵的平面机构综合方法 李树军 戴建生 (13)
- 一种间歇式弹跳机器人的机构设计与跳跃性能分析 柴辉 葛文杰 魏敦文等 (19)
- 7自由度自动铺丝机器人参数化的自运动流形 葛新锋 赵东标 (27)
- 椭圆—不完全非圆齿轮行星系蔬菜钵苗取苗机构的研究 俞高红 陈志威 赵匀等 (32)
- 基于2R伪刚体模型的柔顺机构动力学建模及特性分析 李茜 余跃庆 常星 (40)
- 基于最小二乘支持矢量机的四绳牵引6自由度欠约束并联机器人的
静刚度分析及优化 郑亚青 江晓玲 (49)
- 6-UPS交叉杆型并联机床的运动学正解算法 方喜峰 赵若愚 吴洪涛等 (56)
- 三维表面扫描机器人误差建模与补偿方法 吴德烽 李爱国 (61)

机械动力学

- 利用声场空间分布特征诊断滚动轴承故障 鲁文波 蒋伟康 (68)
- 基于小波相关排列熵的轴承早期故障诊断技术 冯辅周 司爱威 饶国强等 (73)
- Galfenol智能悬臂梁中的频率相关性及其自适应动态控制 舒亮 朱翔鸣 吴桂初等 (80)
- 基于旋转不变信号参数估计技术与模式搜索算法的异步电动机转子
故障检测新方法 孙丽玲 许伯强 李志远 (89)
- 基于流—固耦合的汽车减振器动态特性仿真分析 贺李平 顾亮 龙凯等 (96)
- 基于椭圆Fourier描述子的旋转机械振动信号分析 杨彦利 苗长云 仇大俐 (102)
- 基于非平稳时间序列双标度指数特征的齿轮箱故障诊断 林近山 陈前 (108)
- 过盈接触式伸缩杆的动态特性 刘赞 王浩 黄明 (115)

制造科学与技术

数字化设计与制造

- 任意结构多轴数控机床后置处理的全微分求解算法 彭芳瑜 马吉阳 王力等 (121)
- 三轴无磁转台磁特性分析与结构设计 王旭永 代勇 陶建峰等 (127)
- 基于多属性决策的气动隐身多目标优化 廖炎平 刘莉 龙腾 (132)
- 基于压电材料反射声压最小的主动吸声方法 刘刚田 吉晓民 (141)
- 超磁致伸缩材料动态涡流损耗模型及试验分析 陶孟仑 陈定方 卢全国等 (146)
- 沥青发泡本质特征解析下的腔体设计与评价 程海鹰 张昱 王安麟等 (152)
- 圆柱面过盈连接的力学特性及设计方法 滕瑞静 张余斌 周晓军等 (160)

制造工艺与装备

- 振动切削深孔加工初始偏差对孔直线度误差的影响 李言 孔令飞 (167)
- 软性磨粒流磨粒入射壁面过程及其加工特性研究 计时鸣 池永为 谭大鹏 (174)
- 核主泵用流体动压密封环复杂形面超精密磨削 霍凤伟 郭东明 冯光等 (184)
- 双导程ZN蜗杆修缘成形磨削研究 刘丰林 宋晓 徐晓刚等 (192)

JOURNAL OF MECHANICAL ENGINEERING

Vol.48 No.13 July 2012

CONTENTS

- Obstacle Avoidance Criteria Based Motion Planning for Dual-arm
Mobile Robot Moving within Truss.....WU Weiguo WU Peng (1)
- Meshing Analysis and Design Method of Hy-Vo Silent Chain Based on Heart Hole
..... MENG Fanzhong CHENG Yabing QIAN Jiang (8)
- Structural Synthesis Method of Planar Mechanisms Using the Assur-group
Based Adjacency MatrixLI Shujun DAI Jiansheng (13)
- Mechanism Design and Hopping Performance Analysis of an Intermittent Hopping Robot
..... CHAI Hui GE Wenjie WEI Dunwen et al (19)
- Parameterized Self-motion Manifold of 7-DOF Automatic Fiber Placement
Robotic ManipulatorGE Xinfeng ZHAO Dongbiao (27)
- Study on Vegetable Plug Seedling Pick-up Mechanism of Planetary Gear Train with Ellipse
Gears and Incomplete Non-circular Gear.....YU Gaohong CHEN Zhiwei ZHAO Yun et al (32)
- Dynamic Modeling and Analysis of Compliant Mechanisms Based on
2R Pseudo-rigid-body ModelLI Qian YU Yueqing CHANG Xing (40)
- Static Stiffness Analysis and Optimization of Four-cable-driven Under-restrained Parallel
Manipulator with 6 DOFs Based on Least Square-support Vector Machine
.....ZHENG Yaqing JIANG Xiaoling (49)
- Forward Kinematics Analysis of 6-UPS Parallel Machine Tool with Cross Rod
.....FANG Xifeng ZHAO Ruoyu WU Hongtao et al (56)
- Error Modeling and Compensation Approach for Three-dimensional Surface
Scanning RobotWU Defeng LI Aiguo (61)
- Diagnosing Rolling Bearing Faults Using Spatial Distribution Features of
Sound FieldLU Wenbo JIANG Weikang (68)
- Early Fault Diagnosis Technology for Bearing Based on Wavelet
Correlation Permutation Entropy FENG Fuzhou SI Aiwei RAO Guoqiang et al (73)
- Frequency Dependence of Galfenol Cantilever Beam and the Research
on the Adaptive Dynamic Control..... SHU Liang ZHU Xiangou WU Guichu et al (80)
- Detection of Rotor Fault in Induction Motors by Combining Estimation of Signal Parameters
via Rotational Invariance Technique and Pattern Search Algorithm
.....SUN Liling XU Boqiang LI Zhiyuan (89)
- Simulative Analysis of Dynamic Characteristics of Automobile Shock Absorbers
Based on Fluid-structure Interaction HE Liping GU Liang LONG Kai et al (96)
- Analysis on Vibration Signals of Rotating Machinery Based on Elliptic Fourier Descriptors
.....YANG Yanli MIAO Changyun KANG Dali (102)

(下转封三)

(上接第 II 页)

Fault Diagnosis of Gearboxes Based on the Double-scaling-exponent Characteristic of Nonstationary Time Series	LIN Jinshan CHEN Qian (108)
Dynamic Behavior of Interference-contact Expansion Link	LIU Yun WANG Hao HUANG Ming (115)
Post-processing Algorithm Based on Total Differential Method for Multi-axis Machine Tools with Arbitrary Configuration	PENG Fangyu MA Jiyang WANG Li et al (121)
Magnetic Analysis and Structure Design of Tri-axial Non-magnetical Turntable	WANG Xuyong DAI Yong TAO Jianfeng et al (127)
Multi-objective Aerodynamic and Stealthy Performance Optimization Based on Multi-attribute Decision Making	LIAO Yanping LIU Li LONG Teng (132)
Minimum Active Sound Absorption Method Study Based on the Reflected Sound Pressure of Piezoelectric Materials	LIU Gangtian JI Xiaomin (141)
Eddy Current Losses of Giant Magnetostrictors: Modeling and Experimental Analysis	TAO Menglun CHEN Dingfang LU Quanguo et al (146)
Foaming Chamber Design and Evaluation Based on the Analysis of Bitumen Foaming Essential Characteristics	CHENG Haiying ZHANG Yu WANG Anlin et al (152)
Mechanical Properties and Design Method of Cylindrical Interference Fit	TENG Ruijing ZHANG Yubin ZHOU Xiaojun et al (160)
Influence of Initial Deviation in Vibrating Deep Hole Drilling on Hole Straightness Error	LI Yan KONG Lingfei (167)
Research of Abrasive Injection Process to the Wall and Machining Characteristic of Soft Abrasive Flow Machining	JI Shiming CHI Yongwei TAN Dapeng (174)
Ultra-precision Grinding of the Complex Surfaces of Hydrodynamic Seal Rings Used in Reactor Coolant Pumps	HUO Fengwei GUO Dongming FENG Guang et al (184)
Modification Profile Form Grinding of Dual Lead ZN Worm	LIU Fenglin SONG Xiao XU Xiaogang et al (192)