

目次

CONTENTS

机械制造与自动化

MACHINE BUILDING & AUTOMATION

2016年第4期(总第245期)
No.4 2016 (Total Issue No.245)

综述与展望 / Summaries of Special Topics

- 1 面向对象的多杆机构多目标多约束优化设计方法 ■唐敦兵,杨俊,戴敏
Object oriented Multiple Poles and Multi objective Constraint Optimization Design Method

机械制造 / Machine Manufacture

- 5 一种基于模糊 C 均值和均值滤波的点云去噪算法 ■许龙,黄翔,李根
Point Clouds De-noise Algorithm Based on Fuzzy C-means and Mean Filter
- 8 折叠气囊式机车碰撞试验台加速能力的研究 ■柳忠彬,肖守纳,柯治成,王欢,李玉如
Research on Accelerating Ability of Folded Airbag Type Locomotive Collision Test Rig
- 14 钎焊金刚石锯片加工 HRB400 钢的模型及试验分析 ■徐风雷,肖冰,刘思幸
Model and Experimental Analysis of Monolayer Brazed Diamond Saw Cutting Rebar HRB400
- 17 铝合金搅拌摩擦焊接工艺参数对焊接温度的影响 ■赵维刚,陈吉,王宇晗,郭聪聪
Effect of Processing Parameters on Welding Temperature During Friction Stir Welding of Aluminum Alloy
- 21 一种 V 型切口应力强度因子的计算公式 ■钱文杰,王纬波,田常录
Formula for Stress Intensity Factor of V-Notch
- 24 一种基于后缀数组的三维机加工工艺工序间模型轻量化文件压缩技术 ■孔昭,倪中华,刘晓军,郑磊
Compression Method of 3D Machining Process Models Through Suffix Arrays
- 28 卡套式管接头性能分析 ■衡波志,冷小磊
Performance Analysis of the Bite Type Fittings
- 30 基于 ADAMS 的盘圆砂钢系统动平衡优化 ■顾慧健,李庆忠,沈俊,刘利国
Balance Optimization of Bundled Bar Polishing System Based on ADAMS
- 34 添加钛中间层的 SiCp/Al 复合材料脉冲激光焊接工艺参数的研究 ■吴桥,赵剑峰,李亮
Study of Parameters of Laser Welding of High Volume Fraction of SiCp/Al Comopite with Intermediate Layer
- 37 溅射薄膜压力传感器敏感元件的制作工艺研究 ■蒋传生,章恺
Research on Processing Technology of Sensitive Element of Sputtering Thin-film Pressure Sensor
- 40 纳米添加剂润滑条件下 GCr15/45# 钢摩擦磨损性能影响 ■左维琦,孙睿泽
Analysis of Tribological Properties of Different Nano Additives for Lubricating Conditions
- 44 一种应用于航空发动机测试的小型磁电式转速传感器 ■顾宝龙,赵振平,何泳,陈浩远,闫旭
Miniature Magnetolectric Rotational Speed Sensor Applied to the Measurement of Aerial Engine
- 48 TC4 钛合金对接板零件热成形工艺研究 ■顾俊海,刘蓓蓓,张骁
Development of Hot Forming Process for TC4 Titanium Lap Plate
- 50 弧面群孔结构管电极电解加工试验研究 ■王芯蒂,李寒松,房晓龙,曲宁松
Experimental Investigation on Electrochemical Drilling of Multiple Holes on Camber Surface
- 54 无人搜救飞行器结构设计 ■刘利鹏,刘凤国,徐青,李华云,张亚鸣,张苗苗
Structure Design of Unmanned Search and Rescue Aircraft with Four Rotors
- 56 电动汽车电池技术发展综述 ■刘焯,郑燕萍,孙伟明,朱静
Development Review of Battery Technology for Electric Vehicles
- 59 四工位数控多棱面水晶磨抛一体机研发 ■黄博贤,聂晓根
Design of Efficient Multi-faceted Crystal Grinding and Polishing Machine
- 63 电动汽车碰撞事故特征与电池约束安全设计探讨 ■俞骏威,杨小波,张晓云
Investigation of Electric Vehicle's Traffic Accident Characteristics and Its Battery Pack Protection Device Development
- 66 基于平面光栅的加工中心反向尖角分析 ■冯莉,冯斐
Analysis of Reverse Angle of Machining Center Based on Grid Encoder
- 69 液胀成形双金属复合管专用超高压模具装置 ■马海宽,李培力,隋健,寇永乐,刘慧超
Special Ultra high Pressure Mold Set for Liquid Forming of Double Metal Composite Tube
- 71 钢板除锈机设计 ■张立娟,李溪源
Steel Plate Cleaning Machine Design
- 75 灰色不确定条件下的多状态系统可靠性分析 ■陈兆芳,张岐山
Reliability Analysis of Multi-state System Considering Grey and Uncertainties
- 78 船用柴油机 SCR 系统反应器单元压力损失研究 ■耿见宇,肖飞,沈飞翔,李晓波
Study of Pressure Loss of Marine Diesel Engine SCR System's Reactor
- 81 三维铸造工艺 CAD 冒口系统设计 ■邹左明,杨金鹏
Three Dimensional Casting Process CAD Riser System Design

信息技术 / Information Technology

- 84 基于 PAM-STAMP2G 的钛合金钣金零件橡皮囊成形有限元模拟 ■刘垒,孙志宏,庄璐玮,徐友均,申发兰
Rubber Bladder Forming for Titanium Alloy Sheet Metal Parts Based on PAM-STAMP2G Finite Element Simulation
- 87 一种新型制动装置的设计与仿真分析 ■鲍敬源,吴其俊,任冠逢,赫雷,周克栋
Design and Simulation Analysis of New Type Brake Device
- 90 基于 Demo3D 的某冰箱门体摩擦配送线仿真 ■韩雪峰,刘壮,高长水,毛光华
Simulation of Refrigerator Assembly Line Based on Demo3D
- 93 ADO 数据库编程在地铁车站监控系统中的应用研究 ■曹成,徐骏善
Application of ADO Database Programming in Subway Station Monitoring System
- 96 车用后栏板起重装置及其关键部件的有限元分析 ■许涛,田杰,孔志超,季佳仁
Finite Element Analysis of Vehicle Tail Lifting Device and Its Key Components

- 99 一种微裂纹摩擦阻尼分析模型
Model of Frictional Damping Introduced by Micro Cracks ■莫佳亮,周储伟,雷晓恒
- 104 基于云存储的教学资源共享平台的设计与实现
Design and Implementation of Teaching Resource Sharing Platform Based on Cloud Storage ■蒋漪涟,刘晓丹,张路通
- 108 基于 Dyna971 的切槽刀仿真设计及应用
Simulation and Application of Grooving Cutter Based on Dyna971 Software ■严辉容,唐俊,朱留究
- 111 基于 Unity 3D 的装甲车辆虚拟现实运动系统的设计
Virtual Reality Design of Simple Movement System on Tank Based on Unity 3D ■刘忠凯,李焕良,孙琰,杨小强
- 114 Block UI Styler 与 MFC 在 UG 二次开发中的交互的研究
Research on Interactive of Block Styler and MFC in UG Customization Development ■纪忠华,黄诗君,张茜
- 117 基于温升效应的薄板高速冲裁件断面质量数值模拟与试验研究
Numerical Simulation and Experimental Research on High-speed Blanking Quality Based on Temperature Rise Effect ■刘明,陈明和,胡道春
- 120 高速列车翼型风阻制动的流场数值模拟
Numerical Simulation of Flow Field with Airfoil Drag Brake in High-speed Train ■刘军,宋丕伟,王琳
- 124 预应力轧机垂直振动建模与稳定性分析
Modeling and Stability Analysis of Vertical Vibration of Pre-stressed Rolling Mill ■包红刚,赵俊天
- 128 大型卷板机上梁受力建模及有限元分析
Modeling and Stability Analysis of Vertical Vibration of Pre-stressed Rolling Mill ■刘庆印,王禹,常欣,武凯,孙宇
- 132 混合 KPCA 和 SVM 的机械零件形状识别方法研究
Research on Shape Recognition of Mechanical Parts Based on Hybrid KPCA and SVM ■冯长建,吴斌,罗跃纲
- 135 基于 Solidworks 的平面铰链四杆机构的运动仿真分析
Simulation of Plane Four Bar Mechanism Based on Solidworks ■李雅昔,李晓莉
- 137 基于 SolidWorks 的大型羊场羊粪清理机设计
Design of Dung Cleaning Machine for Large Sheepfold Based on SolidWorks ■雷福祥,周岭,许晓东,陈晓川
- 140 基于 Moldex3D 的盒状零件模具异型水路设计与优化
Design and Optimization of Box Parts for Waterway Based on Moldex3D ■周娟利
- 142 基于 AutoLisp 的零件序号智能标注程序设计
Balloon Intelligent Labeling Program Design Based on Autolisp ■赵宏

电气与自动化 / Electric and Automation

- 145 单自由度机器手的碰撞检测与应急控制
Single Degree of Freedom Robot Collision Detection and Emergency Control ■陈建华
- 149 一种带遗忘因子的自适应卡尔曼滤波器及其在移动机器人中的应用
Forgetting Factor Kalman Filter and Its Application to Mobile Robots ■虞波,周翟和,赵庆涛,胡佳佳
- 153 基于时延估计的漂浮基空间机器人鲁棒 H_{∞} 关节跟踪控制
Robust H_{∞} Control of Free-floating Space Robot Systems in Joint Space Based on Time Delay Estimation ■叶柄能,陈力
- 157 DELMIA 在机器人生产线仿真中的应用
Application of DELMIA in Robot Production Line Simulation ■陈世钟,宋健,黄卓,窦正伟,管貽生
- 161 柔性空间机械臂的动力学仿真及控制
Dynamics Simulation and Control of Flexible Space Manipulator ■宋云雪,胡文杰
- 165 基于机器视觉的铲斗目标检测
Bucket Target Detection Based on Machine Vision ■于华琛,袁祖强
- 168 基于 ZigBee 的三维定位系统设计与实现
Three-dimensional Positioning System Design and Implementation Based on ZigBee ■周桂春,江剑
- 173 基于 Kinect 深度图像的目标定位与识别
Target Location and Recognition Based on Kinect Depth Image ■周振,杜姗姗
- 177 云雾条件下视频稳像的预处理
Preprocessing on Foggy and Cloudy Video Stabilization ■朱晨雨,王敬东,吴蔚,黄文娟
- 181 基于物联网的冷鲜肉冷链物流实时监控
Real-time Monitoring System for Meat Cold Chain Logistics Based on Internet of Things ■胡丽蓉,马万太
- 183 无人地效飞行器控制系统设计
Design of Unmanned Ground Effect Aircraft Control System ■陈利
- 184 贝叶斯正则化的 LMBP 神经网络在电气检测系统中的应用
Application of LMBP Neural Network Based on Bayesian Regularization in Electrical Detection System ■王超,侯远龙,侯润明,吕明明
- 189 基于便携平板电脑的计分显示牌遥控系统设计
Remote Control System Design for Scoring Sign Based on Portable Tablet ■陈澄,丁万春,吕富勇,李永新
- 192 列车齿轮速度传感器性能及故障诊断检测技术
Research on Fault Diagnosis for Gear Speed Sensor ■张明伟,姚恩涛,曹吉康,乐璐
- 196 一种液压凿岩钻机智能防卡钎控制系统研究
Research on Automatic Control System of Anti-jamming Protection for Hydraulic Rock Drill Rig ■杜超,夏静
- 200 基于单片机的智能红外遥控开关
Intelligent Infrared Remote Control Switch Based on Microcontroller ■胥加林,游安华,皮大伟
- 202 基于定量反馈理论(QFT)的三轴仪轴向力伺服控制系统的研究
Research on Control System of Electro-hydraulic Servo Triaxial Apparatus Based on Quantitative Feedback Theory ■马自超,王云,何海浪
- 206 自动售票机单程票发售模块的设计与实现
Design and Realization of Contactless Smart Token Module in Thicket Vending Machine ■李岩,徐骏善
- 209 箱式发射导弹发射出箱安全性分析
Analysis of Processing Safety of Canister-launched Missile Launch ■程运江,何强,马大为,朱忠领
- 214 液体和粉末物料定量下料控制系统的设计
Design of Control System for Liquid and Powder Material Quantitative Supply ■乔东凯
- 216 鼓轮堆栈式烟支输出装置的设计
Design of Drums Stacked Cigarette Output Device ■熊克林
- 219 基于风洞试验的重型卡车冷却系统匹配细节分析
Analysis of Matching Details of Heavy Truck Cooling System Based on Wind Tunnel Tests ■曹原,李荣光,李剑,王建,张忠峰,鄢忠永