

ISSN 1671-7988
CN61-1394/TH

陕西省汽车工程学会 主办

汽车实用技术

AUTOMOBILE APPLIED TECHNOLOGY

一种永磁同步电机

最大转矩电流比控制方法 P1

网联汽车车载网络

通讯的安全分析 P14

车门开闭耐久仿真分析

研究及结构优化 P30

汽油车颗粒物排放

影响试验研究 P93

典型三维点阵夹芯结构抗压性能及其在汽车上的应用分析
P128

某长头重卡车型车门DTS的公差研究
P132

新工科下深度学习在节气门教学中的探索
P158

某车型背门亮条开裂故障分析及解决
P183

基于自动控制系统的汽车电子技术分析
P210



WWW.AUTOMANNET.COM

邮发代号: 52-275

ISSN 1671-7988



9 771671 798213

扫描
二维码
加官方微信



第46卷 2021年 第9期
总第336期

新能源汽车

- 一种永磁同步电机最大转矩电流比控制方法 李玮 刘超 梁海强 (1)
- 应用模拟退火算法进行电动汽车转向传动比的设计研究 牛晶 (4)
- 关于电动车真空泵噪声来源及优化方案 李忠梅 (9)
- 一种基于T-BOX的电动汽车远程预约充电策略 罗浩 王佩 黄振兴 (12)

智能网联汽车

- 网联汽车车载网络通讯的安全分析 贾先锋 宁玉桥 武智 (14)
- 一种车联网安全态势感知模型 王建 李玉洲 张宁等 (20)
- 基于场论的汽车避撞方法研究 贺启才 蔡少康 王康 (25)

设计研究

- 车门开闭耐久仿真分析研究及结构优化 胡冬青 周德生 刘向征等 (30)
- 基于组合优化的花键轴叉轻量化设计 陈文斐 杜嘉峰 郭宁等 (35)
- 圆柱形悬架螺旋弹簧参数化建模 罗谢盼 李奕宝 樊义祥 (39)
- 防撞梁耐撞性及轻量化多目标优化设计 陈士伟 于志新 (43)
- 某商用车后下部防护装置结构优化 胡吉 王金龙 刘万里 (47)
- 整车低电压电容放电优化研究 李书剑 (50)
- 门饰板扶手按压刚度性能的研究 王镇龙 彭宏 滕永泉等 (53)
- 整车防腐技术下的汽车保险杠导向件设计 秦际静 (56)
- 基于实测路谱的路谱重构技术研究 黄亮 杨智 (60)
- 一种新型空气滤清器的设计及性能研究 张清奎 王栋 徐敏等 (64)
- 基于电控框架模型的硬件资源管理研究 刘敏 李吉宗 张文学 (68)
- 基于模型搭建与仿真的辅助编程方法 徐彪 吕涛 陈宝导等 (72)
- 某SUV尾门锁体声音品质问题分析及优化 史富强 杨扬 刘少锋 (76)
- 基于OptiStruct的副车架悬置安装点动刚度优化 韦健 曾桂芬 王振东 (79)
- 一种基于全息影像的座舱电子功能设计 倪海艳 张敏 赵掌柱等 (82)
- 某柴油机冷启动机油泵异响的分析与优化 李昌 (84)
- 汽车主动悬架容错控制策略研究 于发加 (86)
- 汽车制动系统的性能分析和优化 吴希玲 徐文婷 应宇汀 (90)

测试试验

- 汽油车颗粒物排放影响试验研究 李薛 张凯 骆洪燕等 (93)
- 蓄电池支架螺栓预紧力试验对标及结构优化 杜嘉峰 贺廷俊 陈文斐等 (97)
- 卡车加速行驶车外噪声单点阶次分析法源识别与改进 张攀登 王军龙 殷金祥等 (100)
- 轻卡簧载质量振动频率工程计算方法研究 霍红博 王锋 陆燧炜 (104)
- 挡泥板支架疲劳试验方法探究 刘香爱 田朋涛 贺娜 (108)
- 混合动力自动变速器水套仿真分析 赵伟伟 杨琨 张晨光等 (111)
- 考虑涡轮增压发动机响应迟滞的商用车性能仿真与验证 周兵兵 杨志刚 方慧平 (114)
- 轿车白车身弯扭静刚度试验方法研究 王多华 (117)
- 正面碰撞时安全气囊对乘员的保护作用分析 鹿璐 (120)
- 关于轻型货车行驶跑偏技术研究的分析 刘朋朋 (123)
- 基于NASTRAN的某皮卡排气系统耐久性能仿真优化研究 朱小文 钟根丁 刘敏等 (125)

材料与涂装

- 典型三维点阵夹芯结构抗压性能及其在汽车上的应用分析 张甲瑞 姜雪妹 (128)

商用车驾驶室声学包材料的分析与优化	韩雪 高晓阳 张雷 (130)
-------------------------	-----------------

工艺装备

某长头重卡车型车门DTS的公差研究	郭琦 高峰 李龙等 (132)
浅谈MPV车型与轿车及SUV车型焊装共线生产的技术方案	王世明 刘美娜 蔡钢 (136)
汽车轻量化下塑料铰链结构的设计与应用	刘志明 (139)
自动卸模机械手手爪的研究与设计	董伟 (143)
基于项目管理策略的MEB平台五连杆后桥焊接变形控制技术改造与优化	郝雯婧 (146)
某重型汽车挡泥板支架总成通用工装设计	张哲 刘晨光 朱晓康等 (149)
浅谈车身VIN打印工艺技术要求及质量控制	史光辉 吕宗敏 邢文涛 (152)
焊装生产线故障率下降实践探索	王四腾 (155)

汽车教育

新工科下深度学习在节气门教学中的探索	金光灿 刘森 李炎亮 (158)
《汽车诊断与检测技术》线上教学探索	穆桂脂 张广玲 吕钊钦等 (161)
基于1+X证书的高职《汽车营销策划》课程建设研究	白云 (164)
“一带一路”背景下汽车产业国际化人才培养研究	刘媛媛 付舒 (167)
“互联网+向导式”教学法在高职院校专业课中的应用	杨兴国 魏显坤 张知华等 (170)
“1+X”证书制度在汽车专业领域试点的探索与实践——以芜湖职业技术学院为例	汪新伟 (173)
基于“互联网+”的中职院校新能源汽车专业教学模式探索	缪静梅 (176)
中职汽车专业学生学习兴趣培养的研究	战秀梅 (178)
现代学徒制人才培养模式下中职汽修专业课程教学实践研究	陈灏 (180)

使用维修

某车型背门亮条开裂故障分析及解决	杨晨颖 黄志刚 汤跃等 (183)
北汽EV160高压互锁故障排除方法及维修技术研究	黄春梅 池杜旺 (187)
汽车行驶跑偏故障的原因分析	夏良耀 (191)
汽车电控点火系统故障诊断及维修分析	曹海琳 沈法鹏 (194)
汽车发动机温度过高的故障诊断与排除	张斯亮 (197)

标准·法规·管理

感知质量评审在汽车试制开发阶段应用浅析	姜超 (199)
汽车零件车间精益生产实施研究	王晓君 史金鑫 管少亮等 (202)
基于Pyrosim和Pathfinder的高速公路隧道火灾人员疏散研究	余政涛 魏珊珊 龚波等 (207)

综述

基于自动控制系统的汽车电子技术分析	段剑利 (210)
基于大数据的“一带一路”汽车出口量GM模型研究	李普超 王瑶 王冕 (213)
混动旅行拖挂车技术方案综述	杜慎之 (217)
电驱动系统产业发展现状和趋势研究	孟庆思 陈川 李宏伟 (222)
自主泊车系统研究综述	石天聪 刘雪 余政涛 (225)
大数据研究在汽车市场研究中的应用	万甜甜 张磊 杨靖 (228)
影响发动机充气效率的因素及提高方案	樊伟 (231)
乘用车乘坐舒适性主客观评价相关性研究现状分析	刘丹 (234)

广告索引

鑫泽晟科技有限公司	封二
《汽车实用技术》杂志征稿启事	封三
北京百度智行科技有限公司	封底

New Energy Vehicle

- A MTPA Control Method for Permanent Magnet Synchronous Motor Li Wei, Liu Chao, Liang Haiqiang (1)
Application of Simulated Annealing Algorithm in the Design and Research of Electric Vehicle Steering Transmission Ratio Niu Jing (4)
Noise Mechanism and Reduction of Electric Vehicle Vacuum Pump Li Zhongmei (9)
A Remote Reserved Charging Strategy of Electric Vehicle Base on T-BOX Luo Hao, Wang Pei, Huang Zhenxing (12)

Intelligent Connected Vehicle

- Safety Analysis of Network Communication in Automobile Jia Xianfeng, Ning Yuqiao, Wu Zhi (14)
A Security Situation Awareness System of Internet of Vehicles Wang Jian, Li Yuzhou, Zhang Ning, et al (20)
Research on Collision Avoidance Method Based on Field Theory He Qicai, Cai Shaokang, Wang Kang (25)

Design and Research

- Car Towing Hook Strength Analysis and Design Based on Topology Optimization Hu Dongqing, Zhou Desheng, Liu Xiangzheng, et al (30)
Lightweight Design of Spline Shaft Fork Based on Combinatorial Optimization Chen Wenfei, Du Jiafeng, Guo Ning, et al (35)
Parametric Modeling of Cylindrical Coil Suspension Spring Luo Xiepan, Li Yibao, Fan Yixiang (39)
Multi-objective Optimization Design of Crashworthiness and Lightweight of Anti-Collision Beam Chen Shiwei, Yu Zhixin (43)
Structural Optimization of Rear Underrun Protective Device of a Commercial Vehicle Hu Ji, Wang Jinlong, Liu Wanli (47)
Study on Optimizing of Vehicle Low Voltage Capacitor Discharge Li Shujian (50)
Research on Pressing Stiffness of Door Trim Panel Armrest Wang Zhenlong, Peng Hong, Teng Yongquan, et al (53)
The Design of Automobile Bumper Guide Under the Anti-corrosion Technology of the Whole Vehicle Qin Jijing (56)
Research on Road Spectrum Reconstruction Technology Based on Measured Road Spectrum Huang Liang, Yang Zhi (60)
Design and Performance Investigation on a Novel Air Filter Zhang Qingkui, Wang Dong, Xu Min, et al (64)
Research on Hardware Resource Management Based on Electronic Control Framework Model Liu Min, Li Jizong, Zhang Wenxue (68)
The Aided Programing Method Based on Model Building Xu Biao, Lv Tao, Chen Baodao, et al (72)
Analysis and Improvement of the Latch Sound Quality of an SUV Shi Fuqiang, Yang Yang, Liu Shaofeng (76)
Optimization of the Inching Stiffness of Mount Based on OptiStruct Wei Jian, Zeng Guifen, Wang Zhendong (79)
A Vehicle Electronic Function Design of Cockpit Based on Holographic Display Ni Haiyan, Zhang Min, Zhao Zhangzhu, et al (82)
Analysis and Optimization of Abnormal Sound of Oil Pump in a Diesel Engine Cold Starter Li Chang (84)
Research on Fault Tolerant Control Strategy of Automobile Active Suspension Yu Fajia (86)
Performance Analysis and Optimization of Automobile Brake System Wu Xiling, Xu Wenting, Ying Yuting (90)

Testing and Experiment

- An Experimental Study on the Impact of Particulate Emission for Gasoline Vehicle Li Xue, Zhang Kai, Luo Hongyan, et al (93)
Bolt Preload Test Benchmarking and Structural Optimization of Battery Support Du Jiafeng, He Tingjun, Chen Wenfei, et al (97)
Source Identification and Improvement of Single Point Order Analysis Method for Truck Exterior Accelerating pass-by Noise Zhang Pandeng, Wang Junlong, Yin Jinxiang, et al (100)
Research Calculation Methods about Light Truck's Vibration Frequency of Sprung Mass for Engineering Development Huo Hongbo, Wang Feng, Lu Yiwei (104)
Research on Fatigue Test Method of Mudguard Support Liu Xiang'ai, Tian Pengtao, He Na (108)
Simulation Analysis of Water Jacket of Hybrid Automatic Transmission Zhao Weiwei, Yang Xuan, Zhang Chenguang, et al (111)
The Performance Simulation and Verification of Commercial Truck Thinking about the Response Lag Characteristics of Engine with Turbo Charger Zhou Bingbing, Yang Zhigang, Fang Huiping (114)
Research on Test Method of Bending Torsional Static Stiffness of Car Body in White Wang Duohua (117)
Analysis of the Protective Effect of Airbags on Occupants in a Frontal Collision Pang Lu (120)
Analysis on Data Optimization of Light Duty Gasoline Vehicle in Six Stage Test Liu Pengpeng (123)
Simulation Study on Durability Optimization of Exhaust System of a Pickup Truck with NASTRAN Zhu Xiaowen, Zhong Gending, Liu Min, et al (125)

Materials and Coating

- Compressive Performance of Typical Three-Dimensional Lattice Sandwich Structure and its Application in Automobile Zhang Jiarui, Jiang Xuemei (128)
Analysis and Optimization of Acoustic Envelop Material for Commercial Vehicle Cab Han Xue, Gao Xiaoyang, Zhang Lei (130)

Process and Equipment

- Tolerance Setting of DTS for a Long-Head Truck Door Guo Qi, Gao Feng, Li Long, et al (132)

On the Technical Plan of Co-Line Production of MPV Model, Car and SUV Model	Wang Shiming, Liu Meina, Cai Gang (136)
Design and Application of Plastic Hinge Structure in Lightweight Automobile	Liu Zhiming (139)
Research and Design of Automatic Die Unloading Manipulator	Dong Wei (143)
Improvement and Optimization of Welding Deformation Control Technology for Five-lib Bridge of MEB Platform Based on Project Management Strategy	Hao Wenjing (146)
General Tooling Design for Fender Bracket Assembly of a Heavy Truck	Zhang Zhe, Liu Chenguang, Zhu Xiaokang, et al (149)
Discussion on the Technical Requirements and Quality Control of Vehicle VIN Printing	Shi Guanghui, Lv Zongmin, Xing Wentao (152)
Practice Exploration of Failure Rate Reduction in Welding Assembly Line	Wang Siteng (155)

Automobile Education

Research of Throttle using Deep Learning Based on the Emerging Engineering Education	Jin Guangcan, Liu Miao, Li Yanliang (158)
Exploration of Online Teaching of Automobile Diagnosis and Testing Technology	Mu Guizhi, Zhang Guangling, Lv Zhaoqin, et al (161)
The Course Building Research of the Automotive Marketing Planning in Higher vocational College Based on the 1+X Certificate	Bai Yun (164)
Research on the Cultivation of International Talents in the Automobile Industry under the Background of "the Belt and Road"	Liu Yuanyuan, Fu Shu (167)
The Application of "Internet + Guidance" Teaching Method in Professional Courses of Higher Vocational Colleges	Yang Xingguo, Wei Xiankun, Zhang Zhihua, et al (170)
Exploration and Practice of "1+X" Certificate System in Automobile Professional Field ——Taking Wuhu Institute of Technology as an Example	Wang Xinwei (173)
Exploration of the Teaching Mode of New Energy Automobile Major in Secondary Vocational Colleges Based on "Internet+"	Miao Jingmei (176)
Research on the Cultivation of Learning Interest of Secondary Vocational Automobile Major Students	Zhan Xiumei (178)
Research on the Teaching Practice of Secondary Vocational Auto Repair Professional Courses under the Modern Apprenticeship Training Mode	Chen Hao (180)

Use and Maintenance

Analysis and Solution of Cracking Fault of Bright Strip on Back Door of a Model	Yang Chenying, Huang Zhigang, Tang Yue, et al (183)
Research on Troubleshooting Methods and Maintenance Technology of BAIC EV160 High Voltage Inter-lock	Huang Chunmei, Chi Duwang (187)
Analysis on the Cause of the Malfunction of Vehicle Running Off-track	Xia Liangyao (191)
Fault Diagnosis and Maintenance Analysis of Automobile Electronic Ignition System	Cao Hailin, Shen Fapeng (194)
Fault Diagnosis and Troubleshooting of Automobile Engine Temperature Excessive	Zhang Siliang (197)

Standards Regulations Management

A Brief Analysis on the Application of Perceived Quality Review in the Trial Production and Development Stage of Automobile	Jiang Chao (199)
Research on Implementation of Lean Production in Auto Part Plant	Wang Xiaojun, Shi Jinxin, Guan Shaoliang, et al (202)
A Research on Evacuation Characteristics of Highway Tunnel Fire Based on Pyrosim and Pathfinder	Yu Zhengtao, Wei Shanshan, Gong Bo, et al (207)

Overview

Analysis of Automobile Electronic Technology Based on Automatic Control System	Duan Jianli (210)
Research on the GM Model of Automobile Export Volume in the "Belt and Road" Based on Big Data	Li Puchao, Wang Yao, Wang Mian (213)
Summary of Technical Scheme of Mixed Travel Trailer	Du Shenzhi (217)
Study on the Development Status and Trend of Electric Drive System Industry	Meng Qingsi, Chen Chuan, Li Hongwei (222)
Review of Automatic Parking System	Shi Tiancong, Liu Xue, Yu Zhengtao (225)
The Application of Big Data Study in Automotive Market Research Period	Wan Tiantian, Zhang Lei, Yang Jing (228)
Factors Affecting the Efficiency of Engine Inflation and the Improvement Scheme	Fan Wei (231)
Analysis on the Status of Research on the Subjective and Objective Correlation of Passenger Car Ride Comfort	Liu Dan (234)

Advertising Index

Xinzesheng Technology Co., Ltd.	inside front cover
Call for Papers for Automotive Applied Technology Magazine	inside back cover
Beijing Baidu Zhixing Technology Co., Ltd.	back cover