

# 电子质量

DIANZI ZHILIANG

(月刊)公开发行

1980 年创刊

2018年第02期(总第371期)

## 目 次

### 测试测量技术 //

#### 理论与研究

01 电动自行车轮毂电机能耗测量方法的研究

陈森凯 连丽玲 黄镇泽 梁景志 蓝世有 祝江停

03 基于 AHP 的快速发射场技术阵地保障能力研究

杜平 王思宇 黄石磊 宋冈霖

08 空间域可逆水印算法综述

李辉 贝静静 李琦

#### 通用测试

11 多通道高速 AD 采样电路设计与实现

苏延川 穆仕博

15 直流电源纹波和噪声测量

席安和

#### 专业测试

19 基于 CNN 卷积神经网络的特征点提取与相机估计研究

刘艳萍

#### 可靠性分析

24 电动自行车充电器防触电安全风险研究与调查

刘晓臣 杨升振 李荣 李娟

28 某机载武器用电位器失效分析及改进措施

时丙才

更多》

### 绿色质量观察 //

#### 产品设计与开发

31 基于 SPI 通信的模拟输出操纵杆设计

李康 龙玮洁

34 基于环形擦除算法的固态硬盘控制器设计

时丙才

#### 测评与应用

39 算数平均滤波算法在高压脉冲打击中的应用

李丽颖

#### 绿色质量与管理

43 简述综合环境试验的发展

徐鑫

47 浅谈高职电子信息工程专业《单片机应用技术》课程项目化教学的内容选取

张联

49 武器装备协作合同的质量监督与控制探讨

徐岳敏

更多》

#### 行业视点

52 曙光董事长李国杰获授 "CCF 杰出贡献奖 "

52 恩智浦荣登 2017 全球创新企业百强榜

52 康普携手福禄克网络简化高性能数据中心网络认证

### 认 证 与 实 验 室 //

#### 多国认证

54 浅析 CIE 1931 和 CIE 1976 中的 sRGB、NTSC 色域

蒋春花

#### 实验室特写

57 基于 JESD204B 协议的高速雷达波形产生电路设计

李飞飞

60 一种新型 Z 源 AC-AC 变换器

黄晓龙

63 基于时差法的超声波燃气表设计与研究

曾令源 严小强 夏美玲

#### 电磁兼容

68 射频电路 EMI 抑制和 EMC 分析

姜黎

74 基于 SIwave 的计算机主板 EMC 仿真与优化

陈嘉祥 赵慧斌 龚晓敏

#### Q 博士案例

80 内部质量管理体系审核的依据是( )。

80 纠正措施跟踪指的是( )。

80 以下哪些是检验要做的准备工作( )。

# Electronic Quality

Founded 1980

NO.02(Serial No.371),2018  
( February)

## CONTENTS

### Test & Measurement Technology

#### Theory and Research

01 – Study on the Testing Method for Energy Consumption of Wheel Motor for E-bike  
Chen Sen-kai Lian Li-ling Huang Zhen-ze Liang Jing-zhi Lan Shi-you Zhu Jiang-ting

03 – Research on Support Ability of Technical Area in Rapid Launch Site Using AHP  
Du Ping Wang Si-yu Huang Shi-lei Song Gang-lin

08 – A Review on Reversible Watermarking in Spatial Domain  
Li Hui Bei Jing-jing Li Qi

#### General Test

11 – Design and Implementation of Multi-channel High Speed AD Sampling Circuit  
Su Yan-chuan Mu Shi-bo

15 – Measurement of Ripple and Noise in DC Power Supply  
Xi An-he

#### Professional Test

19 – Study on Feature Point Extraction and Camera Estimation Based on CNN Convolution Neural Network  
Liu Yan-ping

#### Reliability Analysis

24 – Research and Investigation on Safety Risk of Electric Bicycle Charger Against Electric Shock  
Liu Xiao-chen Yang Sheng-zhen Li Rong Li Juan

28 – Failure Analysis and Improvement Measures of Potentiometer for an Airborne Weapon  
Shi Bing-cai

[more>>](#)

### Observation of Green Quality

#### Product Design and Development

31 – The Design of Joystick with Analog Output Based on SPI Communication  
Li Kang Long Wei-jie

34 – Design of a Solid-State Disk Controller with Circular Erasing Algorithm  
Shi Bing-cai

### Assessment and Application

39 – The Application of Average Filtering Algorithm in Process of High Voltage Pulse Shock  
Li Li-ying

### Green Quality & Management

43 – Describes the Development of Integrated Environmental Test  
Xu Xin  
47 – Talking about the Content Selection of Project-based Teaching of "SCM Applied Technology" Course in Higher Vocational Electronic Information Engineering  
Zhang Lian  
49 – Discussion on Quality Monitoring in Weapon Equipment Cooperative Contracts  
Xu Yue-min

### Industry Perspective

52 – Chairman of Sugon Li Guojie awarded the "CCF Outstanding Contribution Prize"  
52 – NXP ranked in 2017 Top 100 Global Innovative Enterprises  
52 – Comm Scope cooperated with Fluke Networks to simplify the network certification of high performance data center

[more>>](#)

### Certification & Labs

#### Multi-country Certification

54 – Analysis of sRGB and NTSC Color Gamut in CIE 1931 and CIE 1976  
Jiang Chun-hua

#### Featured Lab

57 – Design of High Speed Radar Waveform Generation Circuit Based on JESD204B Protocol  
Li Fei-fei  
60 – A New Type of Z-Source Converter  
Huang Xiao-long  
63 – Design and Research of Ultrasonic Gas Meter Based on Transit-time Method  
Zeng Ling-yuan Yan Xiao-qiang Xia Mei-ling

#### EMC

68 – EMI Suppression and EMC Analysis of RF Circuits  
Jiang Li  
74 – EMC Simulation and Optimization of Computer Motherboard Based on Slwave  
Chen Jia-xiang Zhao Hui-bing Gong Xiao-min

### Cases from Quality Doctor

80 – The references for internal quality management system auditing are ( ).  
80 – Corrective measures track refers to ( ).  
80 – Which of the followings are the preparation works for inspection ( ).