



社 长: 奚全生  
副 社 长: 苟永明 (常务)  
编委会顾问:

奚恩杰 黄伟禄 李伯虎 张履谦  
陈定昌 黄春平 黄瑞松 梁思礼  
编委会主任: 吴伟仁  
编委会副主任: 奚全生 杨俊 于滨 高津京

编委会委员 (按姓氏笔画排序):

于功敬 王迎春 王国峰 王盼卿 王厚军  
支超有 巨永锋 付 平 付梦印 田仁强  
刘云翔 刘启中 刘衍军 刘载文 刘 嘉  
朱纪洪 黄更新 许爱强 孙瑞志 张小林  
张友鹏 张云卫 张广明 应怀樵 苏 中  
吴 强 杨东凯 杨 军 李 权 李学锋  
李科杰 肖仲平 陈铁军 李绪志 陈慈发  
苗长云 岳继光 单 涛 孟 涛 虎恩典  
周 巍 胡昌华 席震档 徐 社 贾峥光  
战荫伟 郭双红 徐立军 袁庆航 费宗璞  
贾 润 常天庆 黄考利 渠 盟 曹 辉  
盛 捷 曾水平 韩永国 程 进 彭喜元  
韩 贤 董秀成 蒲建军 董胜波 雷 彬  
雷志勇 蔡小斌 蔡蓉华 薛胜军

主 编: 苟永明  
副 主 编: 孟汉城

英文编辑: 杨力生  
编 辑 部: 白春安 任旺芳 顾捷 唐德生

广 告 部: 孙颖  
网 络 部: 肖登伟

主管单位: 中国航天科工集团公司  
主办单位: 中国计算机自动测量与控制技术协会

编辑出版: 《计算机测量与控制》杂志社  
通讯地址: 北京市海淀区阜成路甲8号

航天科工大厦四层  
邮政编码: 100048

电 话: 编辑部: (010) 68372068 68371556  
广告部: (010) 68767886

网 络 部: (010) 68371556转22  
传 真: (010) 68372068/58857222转0201

电子邮箱: 投稿: ck@chinamca.com  
录用稿: ly@chinamca.com

网 址: www.chinamca.com  
印 刷: 北京时尚印佳彩色印刷有限公司

总发行处: 北京报刊发行局  
订 阅 处: 全国各地邮局

邮 发 代 号: 82-16

刊 号: ISSN 1671-4598  
CN 11-4762/TP

国外发行: 中国国际图书贸易总公司  
(北京399信箱 100044)

国外代号: M1480  
广告经营许可证: 京海工商广字第8179号 (1-1)

帐 户: 《计算机测量与控制》杂志社  
帐 号: 11001085400059612076

开户银行: 建行北京阜成路支行  
出版日期: 2010年9月25日

国内定价: 每期定价18.00元/册  
国外定价: 全年84美元

港澳台全年定价480元(含邮资)  
若有印刷、装订质量问题, 本刊负责调换

版权所有, 未经同意, 不得转载。  
万方数据

# 目次 (Contents)

## • 综述与评论 • Summary and Comment

基于PHM的电子装备故障预测系统实现关键技术研究... 连光耀, 吕晓明, 黄考利, 等 (1959)  
Study of Key Realization Technology for Fault Prediction System of Electronic Equipment Based on PHM.....  
Lian Guangyao, Lv Xiaoming, Huang Kaoli, et al (1959)

## • 自动化测试 • Automatic Measurement

机载双冗余1553B总线检测研究... 杨建新, 张 军 (1962)  
Research on Test of Airborne Dual-redundant Data Bus of 1553B.....  
Yang Jianxin, Zhang Jun (1962)  
嵌入故障诊断策略的IETM的研究与实现... 刘双双, 叶晓慧, 王红霞 (1964)  
Research and Realization of Embedded IETM with Diagnostic Strategies.....  
Liu Shuangshuang, Ye Xiaohui, Wang Hongxia (1964)

基于ATML标准的测试系统数据模型设计... 叶海明, 周绍磊, 王昆平 (1967)  
Automatic Test System Data Model Design Based on ATML.....  
Ye Haiming, Zhou Shaolei, Wang Kunping (1967)  
万能式断路器多类别多规格测试的几个关键问题... 涂水林, 顾启民, 谢 启, 等 (1970)  
Several Key Problems about the Test of Multi-Type and Multi-specification Air Circuit Breaker.....  
Tu Shuilin, Gu Qimin, Xie Qiet al (1970)

基于故障字典的数字芯片测试系统... 胡湘娟, 何怡刚, 游望星, 等 (1973)  
Digital Chip Testing System Based on Fault Dictionary.....  
Hu Xiangjuan, He Yigang, You Wangxing, et al (1973)

基于VXI总线的导弹燃气联试自动测试系统实现... 王守华, 李 智 (1976)  
Automatic Test Missile Gas System Implementation Based on VXI bus.....  
Wang Shouhua, Li Zhi (1976)

高速铁路防灾气象监测系统系统设计... 刘丽霞 (1979)  
Weather Monitoring System Design of High Speed Railway for Anti-disaster.....  
Liu Lixia (1979)

基于杜芬振子的微弱正弦信号频率测量... 陈 维, 孟 晨, 崔少辉, 等 (1982)  
Measurement of Weak Sinusoidal Signal Frequency Based on Duffing Oscillator.....  
Chen Wei, Meng Chen, Cui Shaohui, et al (1982)

基于模糊诊断理论的故障诊断工具研究与实现... 许克君, 李 岩, 杨锁昌 (1986)  
Research and Implementation of Fault Diagnosis Tools Based on Fuzzy Diagnosis Theory.....  
Xu Kejun, Li Yan, Yang Suochang (1986)

基于小波包特征熵支持向量机的故障分类方法研究... 刘泽华, 高亚奎 (1989)  
Research of Fault Classification Based on Wavelet Packet-Characteristic Entropy and Support Vector Machines.....  
Liu Zehua, Gao Yakui (1989)

总线架构和载剪化IEEE1451标准的塔机智能监测系统... 郑聪海, 李彦明, 杨山虎, 等 (1992)  
Intelligent Monitoring System for Tower Crane Based on BUS Architecture and Cut IEEE1451 Standard.....  
Zheng Conghai, Li Yanming, Yang Shanhu, et al (1992)

基于红外光谱吸收原理的SF<sub>6</sub>浓度检测系统研究... 曹 通, 魏庆农, 刘世胜, 等 (1996)  
Study of SF<sub>6</sub> Concentration Measurement System Based on Infrared Spectral Absorption.....  
Cao Tong, Wei Qingnong, Liu Shisheng, et al (1996)

基于LabVIEW和MSP430的CO气体无线监测系统... 刘湖平, 麦云飞, 王静悦 (1999)  
Design of CO Gas Wireless Monitoring System Based on LabVIEW and MSP430.....  
Liu Huping, Mai Yunfei, Wang Jingyue (1999)

货车转向架交叉杆弯曲故障辨识算法研究... 杨旭东, 戴 鹏, 何 平, 等 (2002)  
Study on Recognition Algorithm of Curving Fault of Cross Rod of Goods Wagon Bogie.....  
Yang Xudong, Dai Peng, He Ping, et al (2002)

无人视觉自主着陆仿真验证系统时间延迟测定研究... 吴成富, 钱 全, 陈怀民, 等 (2005)  
Research on Mensuration of Time Delay for Vision-Based Autonomous Landing Hardware-in-loop Simulation Testing System.....  
Wu Chengfu, Qian Quan, Chen Huaimin, et al (2005)

改进无线传感器网络矿井监测系统定位算法... 孙泽宇, 李 蒙 (2008)  
Improved Location Algorithm of Coal Mine Monitoring System Based on Wireless Sensor Network.....  
Sun Zeyu, Li Meng (2008)

基于ARM9的轴角测量系统设计... 刘逸飞, 朱新华, 段修生, 等 (2011)  
Design of Measurement System for Shaft-angle Based on ARM9.....  
Liu Yifei, Zhu Xinhua, Duan Xiusheng, et al (2011)

面向对象的集成测试顺序的研究... 周 燕, 宋敬华 (2014)  
Study on Object-Oriented Integrated Testing Sequence.....  
Zhou Yan, Song Jinghua (2014)

一种新的电路故障自主仿真系统的研究与开发... 李树平 (2016)  
A New Low-cost Automated Circuit Fault Emulation System.....  
Li Shuping (2016)

基于Petri网的软件测试用例生成方法... 孙 琳, 刘久富, 杨振兴 (2019)  
Approach to Generation of Software Test Cases Based on Petri Net.....  
Sun Lin, Liu Jiufu, Yang Zhenxing (2019)

本安防爆关联设备性能自动测试系统的设计... 陈小全, 单峻俊 (2023)  
Autodetect System Design of Intrinsic Safety Explosion-proof Instruments.....  
Chen Xiaoquan, Shan Junjun (2023)

基于C8051F330的机动车速度监测及无线传输系统... 袁 江, 李 娟, 邱自学, 等 (2026)  
Design of Vehicle Speed Monitor and Wireless Transmission System Based on C8051F330.....  
Yuan Jiang, Li Juan, Qiu Zixue, et al (2026)

固体火箭发动机质心计算机测量研究... 曾 敏, 陈 东 (2029)  
Research of Computer Measurement for SRM Centroid.....  
Zeng Ming, Chen Dong (2029)

基于SOA的设备综合故障诊断系统研究... 何文华, 梁竟敏 (2032)  
Study on Integrated Fault Diagnosis System Based on SOA.....  
He Wenhua, Liang Jingmin (2032)

内燃机车状态检测及信息管理系统研究与实现... 李成龙, 胡庆松, 王世明 (2035)  
Locomotive State Detection and Information Management System.....  
Li Chenglong, Hu Qingsong, Wang Shiming (2035)



- 数控测井快速平台系统设计.....赵景波,段春辉(2038)  
 Rapid Platform Computerized Logging System Design..... Zhao Jingbo, Duan Chunhui(2038)  
 基于LabVIEW的汽车保险盒回路质量检测系统.....李亚,张振寰,罗鸣,等(2041)  
 Circuit Testing System of Vehicle Fuse Box Based on LabVIEW..... Li Ya, Zhang Zhenhuan, Luo Ming, et al(2041)  
 基于Matlab的高速高精度ADC测试研究.....戴澜,姜岩峰,刘文楷(2044)  
 Testing Research Based on Matlab for High-Speed and High-Resolution ADC..... Dai Lan, Jiang Yanfeng, Liu Wenkai(2044)  
 基于LabView的交直流智能接触器(EMPC)测试系统设计...解伟,张晓斌,金勇,等(2046)  
 Design of LabVIEW-based Test-system for Electrical Manage Power Controller(EMPC)..... Xie Wei, Zhang Xiaobin, Jin Yong, et al(2046)  
 基于AI-ESTATE的二叉树诊断信息模型研究.....姜会霞,孟晨,范书义(2050)  
 Information Model of Binary Tree Fault Diagnosis Based on AI-Estate..... Jiang Huixia, Meng Chen, Fan Shuyi(2050)  
 ARMA模型在浮标压力测量误差问题中的研究.....王世明,李永乐(2054)  
 Research of ARMA Model in Buoy Pressure Error Measurement..... Wang Shiming, Li Yongle(2054)  
 影像测量系统的精密校正方法研究及其应用.....邹华东,祝良荣,陶文勇(2057)  
 Precise Calibration Methods Development and ITS' Application on Vision Measuring System..... Zou Huadong, Zhu Liangrong, Tao Wenyong(2057)  
 基于小波纹理特征的织物疵点检测.....孙自广,何春华,唐培和,等(2060)  
 Fabric Defect Detection Based on Wavelet Transformed Textured Characteristics..... Sun Ziguang, He Chunhua, Tang Peihe, et al(2060)

### • 控制技术 • Control Technology

- 煤矿瓦斯二次爆炸预警控制器参数稳定域计算.....宋绍楼,李军杰,张明(2063)  
 Computing of Parameters's Stabilizing Ranges of Warning Controller on Secondary Coal Mine Gas Explosion..... Song Shaolou, Li Junjie, Zhang Ming(2063)  
 嵌入式神经网络PID控制器的研究与设计.....胡力刚,许伟明(2066)  
 Study and Design of Embedded Neural Network PID Controller..... Hu Ligang, Xu Weiming(2066)  
 单磁悬浮系统的纵向解耦控制研究.....张怡,薛静,张通,等(2070)  
 Study on Lengthways Decoupling Control of Electromagnetic Suspension System..... Zhang Yi, Xue Jing, Zhang Tong, et al(2070)  
 基于FPGA汽车电控单元模糊控制器的设计.....王水鱼,安鸽(2073)  
 Automobile ECU of Fuzzy Controller Based on FPGA..... Wang Shuiyu, An Ge(2073)  
 基于VI的板带轧机电液伺服性能CAT系统研究开发.....董玉祥(2076)  
 CAT System Research of Strip Rolling Mill Electro-hydraulics ervo Performance Based on Virtual Instrument Technology..... Dong Yuxiang(2076)  
 三相电压型光伏并网装置控制策略的研究.....常超,南海鹏,余向阳(2080)  
 Study on Control Strategy of Three Phase Voltage-type Photovoltaic Grid-connected System..... Chang chao, Nan haipeng, Yu xiangyang(2080)  
 基于同伦映射的两轮机器人控制器设计.....孙亮,甘家飞(2083)  
 Design of a Two-wheeled Robot Controller Based on Homotopic Mapping..... Sun Liang, Gan Jiafei(2083)  
 基于MOS电阻阵的红外热图像生成控制系统.....胡浩宇,董敏周,孙力,等(2085)  
 Infrared Images Generation System by MOS Resistors Array..... Hu Haoyu, Dong Minzhou, Sun Li, et al(2085)  
 酸碱中和过程pH值的Fuzzy-PID控制.....谢仕宏(2088)  
 Fuzzy-PID Control of pH Value in Acid and Alkali Neutral Process..... Xie Shihong(2088)  
 基于ARM的汽车安全气囊控制系统设计.....郭波,管菊花,李杰(2091)  
 Automotive Airbag Control System Based on the Microcontroller with ARM Cortex-M3 Kernel..... Guo Bo, Guan Juhua, Li Jie(2091)  
 基于预测模型算法控制的动态配料系统仿真分析.....邱建东,欧志新(2095)  
 Simulation Analysis of Dynamic Batching System Based on Model Algorithm Control..... Qiu Jiandong, Ou Zhixin(2095)  
 四缸汽油发动机动力总成(EMS)设计.....王前程,黎福海(2098)  
 Design of Four-cylinder Gasoline Engine Powertrain..... Wang Qiancheng, Li Fuhai(2098)  
 线性摩擦焊机施力系统模糊PID控制方法研究.....杜随更,于龙岐,杨春强,等(2101)  
 Study on Fuzzy-PID Control For Load System of Linear Friction Welding Machine..... Du Suigeng, Yu Longqi, Yang Chunqiang, et al(2101)  
 基于GPRS的智能路灯远程监控系统研究.....张伟,王宏刚,程培温(2014)  
 Remote Intelligent Monitoring System of Street Lights Based on GPRS..... Zhang Wei, Wang Honggang, Cheng Peiwen(2014)  
 无线测控技术在太阳能路灯综合管理中的应用.....孙滨,郭瑞,付华,等(2107)  
 Application of Wireless Monitoring Technology on Comprehensive Management of Solar Lighting..... Sun Bin, Guo Rui, Fu Hua, et al(2107)  
 激光距离选通成像同步控制器设计.....冯强,李焱(2109)  
 Design of the Laser Range-gating Imaging Synchronization Controller..... Feng Qiang, Li Yan(2109)  
 基于SOPC的飞行器控制系统的硬件设计.....赵宇博,张小林,范力思(2112)  
 Based on the SOPC Hardware Design of Flight Vehicle Control System..... Zhao Yubo, Zhang Xiaolin, Fan Lisi(2112)

### • 军事测控技术 • Military Technology in Measurement and Control

- 一种新型无人飞行器系统的设计与实现.....王洪亮,董浩斌,庄晓奇,等(2115)  
 Design and Implementation of a Novel UAV System..... Wang Hongliang, Dong Haobin, Zhuang Xiaochi, et al(2115)  
 阻尼技术在捷联惯导系统误差补偿中的应用研究.....谢波,秦永元,万彦辉(2117)  
 Research on Application of Damping Technology in the Error Compensation of SINS..... Xie Bo, Qin Yongyuan, Wan Yanhui(2117)

### • 试验与验证技术 • Test & Verification Technology

- 面向RTI的虚拟试验系统中监控工具的研究.....廖建,杨志义,杜承烈,等(2121)  
 Research on Monitoring Tools in Virtual Test System Oriented to RTI..... Liao Jian, Yang Zhiyi, Du Chenglie, et al(2121)

#### Publisher:

Xi Quansheng

#### Vice Publisher:

Gou Yongming

#### Advisors of Editorial Committee:

Luan Enjie Academician

Huang Weilu Academician

Li Bohu Academician

Zhang Lvqian Academician

Chen Dingchang Academician

Huang Chungping Academician

Huang Ruisong Academician

Liang Shili Academician

#### Director of Editorial Committee:

Wu Weiren

#### Vice Director of Editorial Committee:

Xi Quansheng, Yang Jun, Yu Bing, Gao Jinjing

#### Chief Editor:

Gou Yongming

#### Vice Chief Editor:

Meng Hancheng

#### English Editor:

Yang Lisheng

#### Competent Authority:

China Aerospace Science &amp; Industry Corp

#### Sponsor:

China Association of Automated Measurement and Control Technology

#### Edited and Published by:

Magazine Agency of Computer Measurement &amp; Control

#### Address:

4th floor, China Aerospace Mansion No. 8  
Fucheng road, Haidian district, Beijing  
100048, China

Tel: 010-68372068

Fax: 010-68372068

E-mail: ck@chinamca.com

Http: www.chinamca.com

#### General Issue:

Beijing Bureau for Distribution of Newspapers and Journals

#### Domestic distributor:

All Local Post Office in China

Code Name: 82-16

#### Publication Number:

ISSN 1671-4598

CN 11-4762/TP

#### Overseas Distributor:

China International Book Trading Corporation, P.  
O. Box 399, Beijing, 100044, China

Overseas Postal Code Name: M1480

Publishing Date: 25th Sep 2010

Domestic Price: ¥18/Each

Overseas Price: \$10/Each





### VITE 3.0虚拟仪器测试环境



## 还在为测试开发工作 焦头烂额吗?

图形化开发环境

让测试程序开发轻松、高效!

### PXI/CPXI总线测试产品



- ◆ PXI总线8槽机箱
- ◆ PXI外挂式控制器
- ◆ 5.5位数字多用表模块
- ◆ 32通道100kSa/s扫描A/D模块
- ◆ 16MHz双通道任意波形发生器模块
- ◆ 32通道采样开关模块
- ◆ 32通道继电器控制开关模块
- ◆ 8×8矩阵开关模块
- ◆ 32通道数字I/O模块

航天品质

## 为中低频测控系统 提供整体解决方案

**COSIC** 北京航天测控技术开发公司  
BEIJING AEROSPACE MEASUREMENT & CONTROL CORP

本部: 北京市海润区阜成路甲6号 中国航天科工大厦西座 100048  
电话: 010-68370706 68370487 68570333 / 传真: 010-68371578  
网址: www.cosic.com / 邮编: 100048

科技产业园:  
地址: 北京市石景山区京西园3号院 100041  
电话: 010-68296066 / 传真: 010-68797566

万方数据

基于虚拟仪器的起竖实验系统设计与实现.....乔运英,郭晓松,朱智(2125)  
Design and Achievement of the Erection Test System Based on Virtual Instrument.....Qiao Yunying,Guo Xiaosong,Zhu Zhi(2125)

### • 设计与应用 • Design and Application

基于FPGA的高精度全数字锁相环IP核设计.....杨秀增,蒋志年(2127)  
Design of High-precision IP Core of All Digital Phase-locked Loop Based on FPGA.....Yang Xiuzeng,Jiang Zhinian(2127)

基于WIA-PA的无线网络低功耗设计与实现.....徐艳群,张斌(2130)  
Design and Implementation of Low Power consumption Networks Based on WIA-PA.....Xu Yanqun,Zhang Bin(2130)

一种高效的制造网格认证模型设计.....杨章伟,黄绍斌(2133)  
An efficient Design of Authentication Model in Manufacturing Grid.....Yang Zhangwei,Huang Shaobin(2133)

基于多频特征的OTHR目标分类性能分析.....柳毅,刘路,程咏梅,等(2135)  
Performance Analysis of Target Classification of OTHR Based on Multi-frequency Features.....Liu Yi,Liu lu,Cheng Yongmei,et al(2135)

波束域ETAM算法在无人水下航行器中的应用.....郝彦利,王英民,李磊(2139)  
Application Research on Beam Space ETAM for Unmanned Undersea Vehicle.....Yu Yanli, Wang Yingmin, Li Lei(2139)

单片多处理器系统中交叉开关的设计与实现.....任嵘,张盛兵,安建峰(2142)  
A Design and Realization of Crossbar in Chip Multi-processor System.....Ren Rong,Zhang Shengbing,An Jianfeng(2142)

液浮陀螺温度场优化方法研究及实现.....严冰,徐枫,刘雪辰,等(2145)  
Optimization Method Research and Realization of Temperature Field of Floated Gyro.....Yan Bing,Xu Feng,Liu Xuechen,et al(2145)

基于ARM的转台系统仿真通信板设计.....陈伯翰,苗克坚(2148)  
Design of Simulation Communication Board of Table System Based on ARM and CAN Bus.....Chen Bohan,Miao Kejian(2148)

EPA通信网络接入技术的研究与应用.....江杰,孙采鹰(2152)  
Research and Application of EPA Network Access Technology.....Jiang Jie,Sun Caiying(2152)

基于GRNN和混沌系统的数字图像加密方法研究.....张坤,郁湧,李彤(2154)  
Research of Image Encryption Algorithm Based on GRNN and Chaotic System.....Zhang Kun,Yu Yong,Li Tong(2154)

基于颜色和形状信息的快速人数统计方法.....王强,冯燕(2157)  
A Fast People Counting Algorithm Based on Fusion of Color and Shape Information.....Wang Qiang,Feng Yan(2157)

基于ADAMS机器人双目视差位置跟踪方法研究.....于乃功,华瑾(2160)  
Robotic Kinematic Simulation of Position Tracking Based on Binocular Disparity.....Yu Naigong, Hua Jin(2160)

空间科学实验低功耗复用器设计与实现.....陈敬涛,席隆(2164)  
Design and Realization of Low Power Multiplexer in Space Science Experiments.....Chen Mintao,Xi Long(2164)

基于图的K-均值聚类法中初始聚类中心选择.....周海岩,白晓林(2167)  
K-means Initial Clustering Center Optimal Algorithm Based on Graph Theory.....Zhou Haiyan,Bai Xiaolin(2167)

基于FPGA的跟踪伺服器在光电经纬仪中的应用.....李树昌,周学仕,赵永刚(2170)  
Application of Servo-control System based on FPGA in the Electro Theodolites.....Li shuchang,Zhou xueshi,Zhao yonggang(2170)

OSEK车用嵌入式系统报警器模块的设计与实现.....宋雪桦,陈景柱,颜锐,等(2172)  
Design and Realization of Alarm Module in OSEK for Vehicle Operating System.....Song Xuehua,Chen Jingzhu,Yan Rui,et al(2172)

基于ARM-Linux的家用网络平台设计与实现.....陈彩华,龙卫兵,刘彬(2176)  
Design and Implementation of Smart Home Platform Based on ARM-Linux.....Chen Caihua,Long Weibing,Liu Bin(2176)

基于主动策略的AFDX智能网络管理模型研究.....王平,卢选民,陈文刚(2178)  
An Intelligent Network Management Model in AFDX Based on Active Policy.....Wang Ping,Lu Xuanmin,Chen Wengang(2178)

全数字低频锁相环的研究与应用.....侯兴勃,崔健,赵海鹰(2181)  
Study and Application of All Digital Low-Frequency Phase Locked Loop.....Hou Xingbo, Cui Baojian, Zhai Haiying(2181)

ATS集成中的COTS选型决策研究.....赵鑫,肖明清,李潇潇(2183)  
Research on COTS Selections Decision-Making for ATS Integration.....Zhao Xin, Xiao Mingqing, Li Xiaoying(2183)

基于PETRI网理论的FC-AE-1553建模与性能分析.....刘斌,张建东,黄晨博,等(2187)  
Modeling and Performance Analysis of FC-AE-1553 Based on PETRI Net Theory.....Liu Bin,Zhang Jiandong,Huang Chengbo,et al(2187)

### • 软件工程技术 • Software Engineering Technique

汽车安全带卷筒扭矩测试系统软件的设计与实现.....曹利钢,于盛睿,冯浩(2190)  
Design and Realization of Torque Test System Software of Spring Roll on Car Safety Belt.....Cao Ligang,Yu Shengrui,Feng Hao(2190)

基于流量控制的CompactPCI Express通讯接口模块驱动设计.....阙丹丹,李越,凌云峰(2194)  
Designed Research and Implementation of CompactPCI Express Communication Interface Module Driver Based on Flow Control.....Kan dandan,Li Yue,Ling Yunfeng(2194)

基于CAN总线的生物培养控制系统软件设计.....唐晓英,于明鑫,刘伟峰(2197)  
Design of Biological Cultivation Control System Based on CAN Bus.....Tang Xiaoying, Yu Mingxin, Liu Weifeng(2197)

### • 智能仪表与传感器 • Intelligent Meters and Sensors

反射式光纤温度传感器的研究.....李艳萍,郭秀梅,刘海涛,等(2201)  
Study on Reflection Type Optical Fiber Temperature Sensor.....Li Yanping,Guo Xiemei,Liu Haitao,et al(2201)

基于PCI Express总线的高速海量光纤数据记录仪的设计.....吕喜在,张宝文,赵德鑫,等(2203)  
Design of High-Speed & Mass Storage Fiber-Optic Data Recorder Based on PCI Express Bus.....Lv Xizai,Zhang Baowen,Zhao Dexin,et al(2203)

飞机电源控制器PCU测试仪的设计与实现.....解伟,张晓斌,张朋松,等(2207)  
Design of Tester system for Power Control Unit (PCU).....Xie wei,Zhang Xiaobin,Zhang Pengsong,et al(2207)

基于改进蚁群算法的无线传感器网络节点部署.....黄亮(2210)  
Wireless Sensor Network Nodes Deployment Based on Ant Colony Algorithm.....Huang Liang(2210)