

目 次

信息处理技术

风力发电机组故障诊断与预测技术研究综述	金晓航	孙 毅	单继宏	吴根勇 (1041)
面向空间定位系统的分布式融合估计	刘 莉	杨傲雷	屠晓伟	费敏锐 (1054)
球面多探头天线近场测试系统校准方法研究	胡楚锋	郭丽芳	李南京	陈卫军 (1061)
SINS/LBL 组合导航序贯滤波方法			高胜峰	陈建华 (1071)
基于弛豫电量的变压器油纸绝缘老化评估			贺德华	蔡金锭 (1079)
液压四足机器人单腿竖直跳跃步态规划			高炳微	王思凯 (1086)
局部环境增量采样的服务机器人路径规划	陈彦杰	王耀南	谭建豪	毛建旭 (1093)

检测技术

材料早期损伤的非线性超声诊断	门 平	董世运	康学良	国 瑞	闫世兴 (1101)
管道弯头缺陷检测外置式远场涡流探头设计	徐志远	林章鹏	袁湘民	林 稳 (1119)	
非规则结构表面多声源近场声全息方法			宋玉来	胡红生 (1126)	
基于时间域电磁系统的近地表小目标识别	李雅德	张晓娟	渠晓东	谢吴鹏	穆雅鑫 (1135)
动不平衡测量电路频率特性原位补偿技术研究	宋菊平	秦 如	蔡 萍	赵鼎鼎 (1143)	

精密测量与仪器

非侵入式超声导波液位测量方法研究	徐 鸿	郭 鹏	田振华	邓 博	张凯利 (1150)
关节臂式坐标测量机测量力误差分析及补偿	罗 哉	刘 晖	田 焜	李 冬 (1159)	
能量天平不确定度分析与整体系统改进	许金鑫	张钟华	李正坤	鲁云峰 (1168)	
锥齿轮齿面磨削烧伤自动检测装置设计		林家春	张凌浩	石照耀 (1176)	
转台工作面角位置测量装置误差分析与补偿	杨华晖	冯伟利	刘 福	周 军	马 征 (1184)
可见光粗跟踪成像镜头光机结构设计	王 槐	代 霜	范 磊	赵勇志 (1190)	
超磁致伸缩致动器结构分析及输出力特性研究	鞠晓君	林明星	范文涛	马高远 (1198)	
校准能见度仪用标准散射体定标系统装调技术	张 健	张金玉	孙高飞	张建良 (1207)	

传感器技术

预紧式并联六维加速度传感器的解耦算法研究	尤晶晶	李成刚	吴洪涛	严 飞	王 进 (1216)
面向太赫兹应用的平面结构聚合物光电传感器				张 颖	李 悠 (1226)
面向异构水声传感网的分布式负载均衡算法	陈秋丽	何 明	凌 晨	刘 勇	仇功达 (1232)
运动-力解耦的多维轮力传感器研究	冯李航	王 东	徐 扬	林国余	张为公 (1240)
横向磁通径向位移传感器研究	薛莲晓	张 凯	徐 畅	刘哲鸣 (1249)	

视觉测量与图像处理

基于多通道联合稀疏重建的全极化 SAR 成像	孙 超	王保平	方 阳	胡楚锋	宋祖勋 (1257)
基于 CNN 的高速铁路侵限异物特征快速提取算法		王 洋	余祖俊	朱力强	郭保青 (1267)
基于面结构光投影法的刀具几何参数测量研究	刘今越	刘佳斌	贾晓辉	王 宁	李铁军 (1276)

交叉与前沿

准双曲面齿轮准静态接触分析和试验研究	卓耀彬	周晓军	吕浩亮	滕国阳 (1285)
一种并网逆变器的新型复合控制设计	曹 靖	童朝南	周京华	李红涛 (1296)

Information Processing Technology

Fault diagnosis and prognosis for wind turbines; An overview	Jin Xiaohang, Sun Yi, Shan Jihong, Wu Genyong(1041)
Distributed fusion estimation for spatial localization system	Liu Li, Yang Aolei, Tu Xiaowei, Fei Minrui, Zhou Wenju(1054)
Study on the calibration method of spherical multi-probe antenna near-field measurement system	Hu Chufeng, Guo Lifang, Li Nanjing, Chen Weijun, Guo Shuxia(1061)
Sequential filter algorithm in SINS/LBL integrated navigation	Gao Shengfeng, Chen Jianhua, Zhu Hai(1071)
Aging evaluation of transformer oil-paper insulation based on quantity of relaxation charge	He Dehua, Cai Jinding, Cai Jia(1079)
Single leg vertical hopping gait planning for hydraulic quadruped robot	Gao Bingwei, Wang Sikai, Gao Yuanfeng(1086)
Incremental sampling path planning for service robot based on local environments	Chen Yanjie, Wang Yaonan, Tan Jianhao, Mao Jianxu(1093)

Detection Technology

Material early damage diagnosis with nonlinear ultrasound	Men Ping, Dong Shiyun, Kang Xueliang, Guo Rui, Yan Shixing(1101)
External remote field eddy current probe for defect detection at pipe elbows	Xu Zhiyuan, Lin Zhangpeng, Yuan Xiangmin, Lin Wen(1119)
Near-field acoustic holography for multiple sound sources on irregular structure surface	Song Yulai, Hu Hongsheng(1126)
Discriminating subsurface anomaly with time domain electromagnetic induction	Li Yade, Zhang Xiaojuan, Qu Xiaodong, Xie Wupeng, Mu Yaxin(1135)
Study on in-situ frequency compensation of dynamic unbalance measurement system	Song Juping, Qin Ru, Cai Ping, Zhao Dingding(1143)

Precision Measurement Technology and Instruments

Research on non-immersive water level measurement method based on ultrasonic guided waves	Xu Hong, Guo Peng, Tian Zhenhua, Deng Bo, Zhang Kaili(1150)
Error analysis and compensation of the measuring force of the articulated arm coordinate measuring machine	Luo Zai, Liu Hui, Tian Kun, Li Dong(1159)
Uncertainty analysis of the Joule balance method and the improvements of whole system	Xu Jinxin, Zhang Zhonghua, Li Zhengkun, Lu Yunfeng(1168)
Design of automatic detection device for grinding burn of bevel gear tooth surface	Lin Jiachun, Zhang Linghao, Shi Zhaoyao(1176)
Error analysis and compensation of angular position measuring device for turntable working surface	Yang Huahui, Feng Weili, Liu Fu, Zhou Jun, Ma Zheng(1184)
Opto-mechanical structure design of visible light rough tracking and imaging lens	Wang Huai, Dai Shuang, Fan Lei, Zhao Yongzhi(1190)
Structure analysis and output force characteristic study of giant magnetostrictive actuator	Ju Xiaojun, Lin Mingxing, Fan Wentao, Ma Gaoyuan(1198)
Alignment technology for standard scatter plate calibration system used in calibrating forward scattering visibility meter	Zhang Jian, Zhang Guoyu, Sun Gaofei, Zhang Jianliang(1207)

Sensor Technology

Research on the decoupling algorithm of pre-stressed parallel six-axis accelerometer	You Jingjing, Li Chenggang, Wu Hongtao, Yan Fei, Wang Jin(1216)
Electro-optic polymer sensor with coplanar electrodes structure for THz application	Zhang Ying, Li You(1226)
Distributed load balancing algorithm for heterogeneous underwater acoustic sensor networks	Chen Qiuli, He Ming, Ling Chen, Liu Yong, Qiu Gongda(1232)
Motion-force decoupling wheel force transducer	Feng Lihang, Wang Dong, Xu Yang, Lin Guoyu, Zhang Weigong(1240)
Research on transverse flux radial displacement sensor	Xue Lianxiao, Zhang Kai, Xu Yang, Liu Zheming(1249)

Vision Measurement and Image Processing

Full polarization SAR imaging based on multichannel joint sparse reconstruction	Sun Chao, Wang Baoping, Fang Yang, Hu Chufeng, Song Zuxun(1257)
Fast feature extraction algorithm for high-speed railway clearance intruding objects based on CNN	Wang Yang, Yu Zujun, Zhu Liqiang, Guo Baoqing(1267)
Research on tool geometry parameter measurement based on surface structured light projection	Liu Jinyue, Liu Jiabin, Jia Xiaohui, Wang Ning, Li Tiejun(1276)

Cross-discipline and Frontier

Theoretical and experimental investigation on contact characteristics of hypoid gears under quasi-static condition	Zhuo Yaobin, Zhou Xiaojun, Lv Haoliang, Teng Guoyang(1285)
New composite control design for grid-connected inverter	Cao Jing, Tong Chaonan, Zhou Jinghua, Li Hongtao(1296)