

目 次

传感器技术

国外巨磁阻抗传感器检测电路技术的发展动态	潘仲明	周 晗	张大厦	张文娜(781)
智能电动汽车信息感知技术研究进展	张艳辉	徐 坤	郑春花	冯 伟 徐国卿(794)
基于传感器联合测量的车载 POS 精度检测系统设计	周阳林	李广云	王 力	周帅峰 宗文鹏 董 明(806)
大量程磁致伸缩位移传感器的应力波衰减特性研究	王博文	谢新良	张露予	李亚芳 郑文栋(813)
蛇形磁路多片式磁流变液阻尼器设计	高 瞻	宋爱国	秦欢欢	陈大鹏 刘玉庆 姜国华(821)
基于 Φ -OTDR 光纤传感技术的供水管道泄漏辨识方法	王大伟	封 皓	杨 洋	沙 洲 曾周末(830)

信息处理技术

基于 GA-PSO 混合算法的钢杆磁特性参数识别方法	何存富	王 志	刘秀成	王学迁 吴 斌(838)
基于梯度方向直方图的热核特征提取方法	曾 慧	李斯琦	汪慧娟	刘冀伟(844)
基于最优偏差路径的自动导引车纠偏方法	罗 哉	唐颖奇	李 冬	王岚晶(853)
非整周期采样条件下有功电能计量的新算法	陈 垒	赵 伟	肖 勇	庄双勇 黄松岭(861)
气液两相流下微弯型科氏质量流量计信号建模	张建国	徐科军	方正余	董 帅 乐 静(870)
基于生物力学分析 Q 值对颈肌疲劳的反映效果	王 琳	付荣荣	张 陈	王 宏 刘 冲(878)

精密测量与仪器

电磁法勘探中梯度场测量方法研究	刘长胜	刘 鹏	曾新森	张景元 史志辉(886)
大位移角振动台的气隙磁场动静态特性分析	唐 波	何 闻(895)		
压电作动器非对称迟滞模型的建立和参数辨识	顾寒烈	吴洪涛	杨小龙	李 耀 程世利(903)
齿轮测量仪器的动态设计方法及其应用	舒赞辉	石照耀	王笑一(910)	
采用水焓值法的制冷量源及其不确定度分析	杭晨哲	马国远	张海云	徐定华 许树学(919)
敏感轴安装偏角的误差分析与标定方法	郭 强	李岁芳	何 颖(927)	
基于多峰拟合的直线电机定子位置精密测量方法	王 辉	赵 静	赵吉文	窦少昆 宋俊材(935)

检测技术

基于 Markov 特征的油气管道泄漏检测与定位方法	刘金海	臧 东	汪 刚(944)	
基于电机电流分析的万能式断路器机械故障诊断	孙曙光	赵黎媛	杜太行	于 晗 王 岩(952)
基于四电极法的 CFRP 结构损伤检测研究	范文茹	雷 建	董玉珊	薛 倩(961)
气体管道泄漏声发射单一非频散模态定位	杨丽丽	谢昊飞	李帅永	李伟雄 何明峰(969)
电磁式电流互感器谐波比值误差实验与分析	陈利翔	邵振国	张 逸(977)	

视觉测量与图像处理

基于仿生视觉的图像 RST 不变属性特征提取方法	余伶俐	夏旭梅	周开军	陈海初(985)
基于骨架的柔性变形 FPC 断路检测	苑玮琦	李德健	李绍丽(996)	
交叉双边滤波和视觉权重信息的图像融合	刘 峰	沈同圣	马新星(1005)	
鱼眼镜头径向畸变的校正方法	宋 阳	周亚丽	张奇志(1014)	

交叉与前沿

多输入多输出 Hammerstein-Wiener 交流电弧炉电极系统模型	白 晶	毛志忠	浦铁成(1024)	
集成 TRIZ 的机加刀具方案公理化设计	黄斌达	周来水	安鲁陵 卫 炜 卜庆奎(1031)	

Sensor Technology

- Advances in detection circuit of magnetic sensors based on giant magneto-impedance at abroad Pan Zhongming, Zhou Han, Zhang Dasha, Zhang Wenna (781)
- Advanced research on information perception technologies of intelligent electric vehicles Zhang Yanhui, Xu Kun, Zheng Chunhua, Feng Wei, Xu Guoqing (794)
- Design of vehicle-based POS performance evaluation system based on multi-sensors' composite measurements Zhou Yanglin, Li Guangyun, Wang Li, Zhou Shuaifeng, Zong Wenpeng, Dong Ming (806)
- Analysis of stress wave attenuation property of large-scale magnetostrictive displacement sensor Wang Bowen, Xie Xinliang, Zhang Luyu, Li Yafang, Zheng Wendong (813)
- Design of multi-disc MRF damper with serpentine flux path Gao Zhan, Song Aiguo, Qin Huanhuan, Chen Dapeng, Liu Yuqing, Jiang Guohua (821)
- Study on leakage identification method of water supply pipeline based on Φ -OTDR optical fiber sensing technology Wang Dawei, Feng Hao, Yang Yang, Sha Zhou, Zeng Zhoumo (830)

Information Processing Technology

- Magnetic property parameter identification of steel pole based on GA-PSO hybrid algorithm He Cunfu, Wang Zhi, Liu Xiucheng, Wang Xueqian, Wu Bin (838)
- Extraction method of histogram of oriented gradient based heat kernel signatures Zeng Hui, Li Siqi, Wang Huijuan, Liu Jiwei (844)
- AGV rectifying method based on optimal deviation path Luo Zai, Tang Yingqi, Li Dong, Wang Lanjing (853)
- New active electric energy measurement algorithm under non-integer-period sampling Chen Lei, Zhao Wei, Xiao Yong, Zhuang Shuangyong, Huang Songling (861)
- Signal modeling for micro-bend type Coriolis mass flowmeter under gas-liquid two-phase flow Zhang Jianguo, Xu Kejun, Fang Zhengyu, Dong Shuai, Yue Jing (870)
- Biomechanics-based investigation on the relation between index Q and cervical muscle fatigue Wang Lin, Fu Rongrong, Zhang Chen, Wang Hong, Liu Chong (878)

Precision Measurement Technology and Instruments

- Study on gradient measurement in electromagnetic exploration Liu Changsheng, Liu Peng, Zeng Xinsen, Zhang Jingyuan, Shi Zhihui (886)
- Dynamic and static characteristics analysis of air-gap magnetic field of a large displacement angular vibrator Tang Bo, He Wen (895)
- Modeling and parameter identification of asymmetric hysteresis for piezoelectric actuator Gu Hanlie, Wu Hongtao, Yang Xiaolong, Li Yao, Cheng Shili (903)
- Dynamic design method of gear measuring instrument and its application Shu Zanhui, Shi Zhaoyao, Wang Xiaoyi (910)
- Cooling capacity source and its uncertainty analysis with water-enthalpy method Hang Chenzhe, Ma Guoyuan, Zhang Haiyun, Xu Dinghua, Xu Shuxue (919)
- Error analysis and calibration method of the installation angle of sensitive axis Guo Qiang, Li Suilao, He Ying (927)
- Ultra-precision position detection for linear motor mover based on multi-peak fitting Wang Hui, Zhao Jing, Zhao Jiwen, Dou Shaokun, Song Juncui (935)

Detection Technology

- Leakage detection and location method of oil and gas pipelines based on Markov features Liu Jinhai, Zang Dong, Wang Gang (944)
- Diagnosis on the mechanical fault of universal circuit breaker based on motor current analysis Sun Shuguang, Zhao Liyuan, Du Taihang, Yu Han, Wang Yan (952)
- Damage detection of CFRP laminate structure based on four-probe method Fan Wenru, Lei Jian, Dong Yushan, Xue Qian (961)
- Leak location in gas pipelines by extraction of single non-dispersive mode from leakage-induced acoustic emission signal Yang Lili, Xie Haoqi, Li Shuaiyong, Li Weixiong, He Mingfeng (969)
- Experiment and analysis on electromagnetic current transformer harmonic ratio error Chen Lixiang, Shao Zhenguo, Zhang Yi (977)

Vision Measurement and Image Processing

- RST-invariant feature extraction method inspired by bionic visual perception Yu Lingli, Xia Xumei, Zhou Kaijun, Chen Haichu (985)
- The circuit break detection of flexible deformation FPC based on skeleton Yuan Weiqi, Li Dejian, Li Shaoli (996)
- Image fusion via cross bilateral filter and visual weight information Liu Feng, Shen Tongsheng, Ma Xinxing (1005)
- Correction method for radial distortion of fisheye lens Song Yang, Zhou Yali, Zhang Qizhi (1014)

Cross-discipline and Frontier

- Modeling for electrode system in alternating current electric arc furnace based on Hammerstein-Wiener model Bai Jing, Mao Zhizhong, Pu Tiecheng (1024)
- Configuration axiomatic design method for the machining fixtures integrating TRIZ Huang Binda, Zhou Laishui, An Luling, Wei Wei, Bu Qingkui (1031)