

电机与控制学报

第 22 卷 第 04 期 (总第 162 期) 2018 年 04 月

目 次

一种新型开合式 D-dot 电压传感器的研究
..... 汪金刚, 包诗媛, 魏 钢, 邓旭东 (1)

无刷直流电机半实物实时仿真及测试 高 瑾, 徐秋霞, 董召强 (8)

两相导通型永磁无刷直流电机低速瞬时转矩观测 周扬忠, 张登灵, 陈旭东 (16)

永磁同步电机闭环控制系统数字 PI 参数整定
..... 刘景林, 公 超, 韩泽秀, 王晓梅 (26)

中型高压电机内风扇流体分析与温升计算
..... 温嘉斌, 刘艳翠, 姜天一, 朱建良, 苏 勇 (33)

基于传递控制器的 AGC 系统研究 张伟民, 张艳霞 (42)

应用有限元法分析变压器绕组固有振动特性
..... 王丰华, 杨 毅, 何苗忠, 杜胜磊, 刘 石, 杨 贤 (51)

一种带有误差补偿项的折线线圈阻抗解析建模新方法
..... 吴德会, 何天府, 黄一民, 苏令铎, 刘志天 (58)

基于电流分析的开关磁阻电机功率变换器故障检测方法
..... 肖 丽, 范书瑞, 王博文, 申 芳, 董昊宇 (67)

软磁复合材料及其在永磁无刷电机中的应用
..... 徐衍亮, 王冰冰, 高启龙, 张 云 (75)

铁心电抗器气隙边缘效应计算及影响因素
..... 官瑞杨, 魏新劳, 王永红, 陈庆国 (81)

清洁能源发电并网逆变器有限状态模型预测控制
..... 金 楠, 郭磊磊, 窦智峰, 张 洋, 韩东许 (89)

磁悬浮高速电机系统建模与控制
..... 张 涛, 刘欣凤, 莫丽红, 倪 伟, 桑英军, 丁卫红 (98)

二自由度飞行姿态模拟器自整定控制器设计
..... 尹 航, 杨焯峰, 赵 岩, 梁 悦, 班晓军 (105)

摆动喷管电动伺服系统复合控制方法 方世鹏, 胡昌华, 扈晓翔, 武志辉 (113)

ELECTRIC MACHINES AND CONTROL

Vol. 22 No. 04 Apr. 2018

CONTENTS

Study of a D-dot voltage sensor with open structure	WANG Jin-gang, BAO Shi-yuan, WEI Gang, DENG Xu-dong (1)
Real-time simulation and test for brushless DC motor with hardware-in-the-loop	GAO Jin, XU Qiu-xia, DONG Zhao-qiang (8)
Instantaneous torque estimator for permanent brushless DC motor with two-phase conduction at low speed	ZHOU Yang-zhong, ZHANG Deng-ling, CHEN Xu-dong (16)
Tuning method for digital PI controllers of PMSM closed-loop driving system	LIU Jing-lin, GONG Chao, HAN Ze-xiu, WANG Xiao-mei (26)
Analysis of fluid field of the internal fan and calculation of temperature rise for medium-size high-voltage asynchronous motor	WEN Jia-bin, LIU Yan-cui, JIANG Tian-yi, ZHU Jian-liang, SU Yong (33)
Reseach on AGC system based on transfer controller	ZHANG Wei-min, ZHANG Yan-xia (42)
Inherent vibration features of power transformer winding by finite element method	WANG Feng-hua, YANG Yi, HE Miao-zhong, DU Sheng-lei, LIU Shi, YANG Xian (51)
Analytic modeling method for meander coil impedance with error compensation	WU De-hui, HE Tian-fu, HUANG Yi-min, SU Ling-xin, LIU Zhi-tian (58)
Fault detection method of power converter for switched reluctance motor based on analysis of current	XIAO Li, FAN Shu-rui, WANG Bo-wen, SHEN Fang, DONG Hao-yu (67)
Soft magnetic composite material and its application in permanent magnet brushless motors	XU Yan-liang, WANG Bing-bing, GAO Qi-long, ZHANG Yun (75)
Calculation and influence factors of air-gap edge effect of iron-core reactor	GUAN Rui-yang, WEI Xin-lao, WANG Yong-hong, CHEN Qing-guo (81)
Finite states model predictive control for grid-connected inverter of clean energy power generation	JIN Nan, GUO Lei-lei, DOU Zhi-feng, ZHANG Yang, HAN Dong-xu (89)
Modeling and control of magnetic suspension high-speed motor	ZHANG Tao, LIU Xin-feng, MO Li-hong, NI Wei, SANG Ying-jun, DING Wei-hong (98)
Self-tuning controller design for a 2-DOF flight attitude simulator	YIN Hang, YANG Ye-feng, ZHAO Yan, LIANG Yue, BAN Xiao-jun (105)
Composite control method for motor servo systems of gimbaled nozzle	FANG Shi-peng, HU Chang-hua, HU Xiao-xiang, WU Zhi-hui (113)

Serial parameters: CN 23-1408 / TM * 1997 * m * A4 * 122 * zh * P * ¥15.00 * 2000 * 15 * 2018-04 * n

Responsible Editor: LIU Su-ju **English Examiner:** JIANG Yu-feng LANG Fei