

电机与控制学报

第 25 卷 第 5 期 (总第 199 期) 2021 年 5 月

目次

转子微动状态下永磁同步电机初始位置检测
..... 王亚伟, 章 玮 (1)

多耦合线圈混合谐波滤波器研究
..... 陈柏超, 薛 钢, 田翠华, 陈耀军 (7)

一种 120°坐标系下的快速 SVPWM 过调制算法 王 健, 章 玮 (19)

大型核电汽轮发电机非全相运行转子动态电磁力分析
..... 戈宝军, 姜 超, 吕 品, 陶大军, 林 鹏, 殷继伟, 赵洪森 (26)

一种并网逆变器无交流电压传感器控制方法
..... 王 兴, 杨 凯, 张伟健 (36)

中小型无刷励磁同步发电机组旋转整流桥二极管开路故障的在线检测方法
..... 武玉才, 庞永林, 侯旭辰 (42)

基于电力电子变压器的串联型 12 脉波整流器
..... 孟凡刚, 姜 彤, 郭依宁 (52)

LCL 型并网逆变器大小信号模型比较与分析
..... 李建文, 李 戎, 吴滨源, 孙 伟 (60)

运行环境对换流变压器油纸绝缘电场分布的影响
..... 池明赫, 李毅恒, 罗青林, 张潮海, 孙文鑫, 关 毅, 陈庆国 (71)

采用奇异能量谱与改进 ELM 的轴承故障诊断方法
..... 葛兴来, 张 鑫 (80)

船舶直流微电网非线性积分均流控制
..... 庄绪州, 刘彦呈, 张勤进, 陈再发, 郑祥鲁 (88)

转矩脉动触发的牵引逆变器模型预测控制
..... 向超群, 欧阳泽铿, 成 庶 (100)

舰船直流区域配电网线路保护方法 王 琦, 叶志浩 (109)

柔性关节机械臂最优控制方法研究
..... 崔士鹏, 孙永军, 刘伊威, 刘 宏 (119)

MSMA 自感知执行器结构设计与信号处理研究
..... 鲁 军, 张源鑫, 冯凯旋, 季宝爽, 贾士杰 (131)

ELECTRIC MACHINES AND CONTROL

Vol. 25 No. 5 May 2021

CONTENTS

Initial position estimation for permanent magnet synchronous motors based on rotor micro-movement	WANG Ya-wei, ZHANG Wei (1)
Hybrid harmonic filter with multi-coupled coils	CHEN Bai-chao, XUE Gang, TIAN Cui-hua, CHEN Yao-jun (7)
Fast SVPWM overmodulation algorithm based on 120° coordinate system	WANG Jian, ZHANG Wei (19)
Analysis of rotor dynamic electromagnetic force in large nuclear turbines under open-phase operation condition	GE Bao-jun, JIANG Chao, Lü Pin, TAO Da-jun, LIN Peng, YIN Ji-wei, ZHAO Hong-sen (26)
One kind of AC voltage sensorless control method of grid-connected inverter	WANG Xing, YANG Kai, ZHANG Wei-jian (36)
On-line detection method for rotating rectifier bridge diode open-circuit fault of small and medium-sized brushless excitation synchronous generator set	WU Yu-cai, PANG Yong-lin, HOU Xu-chen (42)
Series-connected 12-pulse rectifier based on power electronic transformer	MENG Fan-gang, JIANG Tong, GUO Yi-ning (52)
Comparison and analysis of large and small signal models of LCL grid-connected inverter	LI Jian-wen, LI Rong, WU Bin-yuan, SUN Wei (60)
Electric field analysis of oil-paper insulation in converter transformer under different environmental factors	CHI Ming-he, LI Yi-heng, LUO Qing-lin, ZHANG Chao-hai, SUN Wen-xin, GUAN Yi, CHEN Qing-guo (71)
Bearing fault diagnosis method using singular energy spectrum and improved ELM	GE Xing-lai, ZHANG Xin (80)
Nonlinear integral current sharing control of marine DC microgrid	ZHUANG Xu-zhou, LIU Yan-cheng, ZHANG Qin-jin, CHEN Zai-fa, ZHENG Xiang-lu (88)
Model predictive control of traction inverter based on torque ripple triggering	XIANG Chao-qun, OUYANG Ze-keng, CHENG Shu (100)
Line protection method of warship DC zonal distribution network	WANG Qi, YE Zhi-hao (109)
Optimal control for flexible joint manipulators	CUI Shi-peng, SUN Yong-jun, LIU Yi-wei, LIU Hong (119)
Structural design and signal processing of MSMA self-sensing actuator	LU Jun, ZHANG Yuan-xin, FENG Kai-xuan, JI Bao-shuang, JIA Shi-jie (131)

Serial parameters: CN 23-1408 / TM * 1997 * m * A4 * 140 * zh * P * ¥20.00 * 2000 * 15 * 2021-05 * n

Responsible Editor: LIU Lin-lin English Examiner: JIANG Yu-feng WANG Shu-ru