



中国电机工程学报

ZHONGGUO DIANJI GONGCHENG XUEBAO

第 38 卷

第 10 期 (总第 597 期)

2018 年 5 月 20 日

目 次

(论文电子版 <http://www.pcsee.org/CN/column/home.shtml>)

· 国家重点研发计划 ·

- 电力系统新型振荡问题浅析 谢小荣, 刘华坤, 贺静波, 刘辉, 刘威 (2821)
交直流混联电力系统小干扰稳定性分析综述 付强, 杜文娟, 王海风 (2829)
主动配电网源-荷-储分布式协调优化运行(一): 基于一致性理论的分布式协调控制系统建模 徐熙林, 宋依群, 姚良忠, 严正 (2841)
含压缩空气储能电力系统日前-日内协调调度策略 李姚旺, 苗世洪, 罗星, 尹斌鑫, 王吉红 (2849)
地市级区域能源互联网安全可信防护体系研究 龚钢军, 高爽, 陆俊, 张葆刚, 刘韧, 吴秋新, 等 (2861)
含高比例风电的虚拟电厂多类型备用协调优化 吕梦璇, 娄素华, 刘建琴, 吴耀武, 王智冬 (2874)
直流故障下 VSC 换流器本体馈流过程分析 贾科, 宣振文, 李论, 王聪博, 李猛, 刘颖 (2883)

· 智能电网 ·

- 先进绝热压缩空气储能技术研究进展及展望 梅生伟, 李瑞, 陈来军, 薛小代 (2893)
混合可再生能源系统多目标优化综述 明梦君, 张涛, 王锐, 刘亚杰, 查亚兵 (2908)
负荷态势感知: 概念、架构及关键技术 许鹏, 孙毅, 石墨, 李彬, 祁兵 (2918)
基于最优线性滤波的 PMU 测量 II: P 类算法设计 汪美平, 黄松岭, 赵伟, 王赞基 (2927)
基于堆叠自动编码器的电力系统暂态稳定评估 朱乔木, 陈金富, 李弘毅, 石东源, 李银红, 段献忠 (2937)
反映实时供需互动的 Stackelberg 博弈模型及其强化学习求解 包涛, 张孝顺, 余涛, 刘希喆, 等 (2947)
含高密度间歇性能源的交直流混合微网模糊随机优化运行 李鹏, 韩鹏飞, 陈安伟, 郑苗苗 (2956)
基于虚拟狼群控制策略的智能发电控制 席磊, 李玉丹, 黄悦华, 杨苹, 许志荣 (2966)

· 输变电技术 ·

- 基于 VSC 与 LCC 混合的多点传输直流输电系统拓扑结构研究与特性分析 刘杉, 余军, 贺之渊, 等 (2980)
VSC-HVDC 联接弱交流系统下的新型附加频率阻尼控制方法 王烨, 宁琳如, 赵成勇, 郭春义 (2989)
基于平均值模型的双端 MMC-HVDC 系统小信号建模 喻悦箫, 刘天琪, 王顺亮, 彭乔, 王峰 (2999)

· 超超临界循环流化床锅炉技术 ·

- 基于无量纲结构因子的低质量流速内螺纹管中超临界水流动和传热性能分析 李舟航, 唐国力, 等 (3007)
近临界压力区低质量流速光管水冷壁临界热流密度试验研究 王文毓, 曲默丰, 赵云杰, 谢海燕, 等 (3015)
新型 660MW 超超临界环形炉膛循环流化床锅炉技术研究 吕清刚, 宋国良, 王东宇, 王小芳, 等 (3022)
循环流化床机组大气污染物排放运行优化研究 高明明, 洪烽, 牟犇, 刘吉臻, 岳光溪, 宋畅, 等 (3033)
循环流化床超细石灰石炉内脱硫研究 蔡润夏, 柯希玮, 葛荣存, 杨海瑞, 吕俊复, 张缦, 等 (3042)

· 电力电子与电力传动 ·

- 适用于双级矩阵变换器整流级功率开关故障的容错策略研究 韩娜, 周波, 秦显慧, 雷家兴, 石宝平 (3049)
基于瞬态热阻的 IGBT 焊料层失效分析 陈一高, 陈民铀, 高兵, 胡博容, 赖伟, 徐盛友 (3059)
总线并行 CPU 分时复用能量管理控制准单级分布式光伏逆变器 江加辉, 陈道炼 (3068)

· 电机与电器 ·

- 三自由度六极混合磁轴承线性/非线性自抗扰切换解耦控制 朱焜秋, 赵泽龙 (3077)
分段供电六相圆筒式直线感应电动机阻抗矩阵及参数辨识方法 黄垂兵, 许金, 吴振兴, 郑欣良, 等 (3087)
基于 Hurwitz 判据的自激感应发电机带载建压分析 李嘉, 吴新振, 王海峰 (3094)
自耦变压器分裂式绕组频率响应分析建模与故障绕组识别 江俊飞, 周利军, 李威, 刘桓成, 王东阳 (3102)

· 高电压技术 ·

- 基于玻尔兹曼方程的不同密度等离子体电子弛豫相似性研究 蔡新景, 王新新, 邹晓兵, 鲁志伟 (3109)
交流半波长输电系统功率波过电压形成机理与抑制策略 张媛媛, 王毅, 韩彬, 班连庚, 项祖涛, 等 (3116)
工频交流电压下 C₆F₁₂O 与 N₂混合气体的击穿特性和分解特性 田双双, 张晓星, 肖淞, 卓然, 等 (3125)

· 英文概述见论文电子版

期刊基本参数: CN11-2107/TM * 1964 * S * A4 * 312* zh * P * ¥84.00 * 4000 * 33 * 2018-05 版权所有 未经许可不得转载及上网

**PROCEEDINGS OF THE CHINESE SOCIETY FOR
ELECTRICAL ENGINEERING**
(PROCEEDINGS OF THE CSEE)

Vol.38 No.10 (Ser. 597)

May 20, 2018

CONTENTS

(Electronic Journals <http://www.pcsee.org/EN/column/current.shtml>)

• National Key Research and Development Program of China •

- On New Oscillation Issues of Power Systems XIE Xiaorong, LIU Huakun, HE Jingbo, LIU Hui, LIU Wei (2821)
Small Signal Stability Analysis of AC/DC Hybrid Power System: An Overview FU Qiang, DU Wenjuan, WANG Haifeng (2829)
Source-load-storage Distributed Coordinative Optimization of AND (Part I): Consensus Based Distributed Coordination System Modeling XU Xilin, SONG Yiqun, YAO Liangzhong, YAN Zheng (2841)
Day-ahead and Intra-day Time Scales Coordinative Dispatch Strategy of Power System With Compressed Air Energy Storage LI Yaowang, MIAO Shihong, LUO Xing, YIN Binxin, WANG Jihong (2849)
Study on Secure Trusted Protection Architecture for Prefecture-level Regional Energy Internet GONG Gangjun, GAO Shuang, LU Jun, ZHANG Baogang, LIU Ren, WU Qiuxin, et al (2861)
Coordinated Optimization of Multi-type Reserve in Virtual Power Plant Accommodated High Shares of Wind Power LÜ Mengxuan, LOU Suhua, LIU Jianqin, WU Yaowu, WANG Zhidong (2874)
Analysis of VSC Converter Current Feeding Process During DC Faults JIA Ke, XUAN Zhenwen, LI Lun, WANG Congbo, LI Meng, LIU Ying (2883)

• Smart Grid •

- An Overview and Outlook on Advanced Adiabatic Compressed Air Energy Storage Technique MEI Shengwei, LI Rui, CHEN Laijun, XUE Xiaodai (2893)
Review of Multi-objective Optimization for Hybrid Renewable Energy System MING Mengjun, ZHANG Tao, WANG Rui, LIU Yajie, ZHA Yabing (2908)
Load Situation Awareness: Concept, Framework and Key Technologies XU Peng, SUN Yi, SHI Mo, LI Bin, QI Bing (2918)
PMU Measurement Based on Optimal Filtering II: P Class Filter Design WANG Fuping, HUANG Songling, ZHAO Wei, WANG Zanji (2927)
Transient Stability Assessment Based on Stacked Autoencoder ZHU Qiaomu, CHEN Jinfu, LI Hongyi, SHI Dongyuan, LI Yinhong, DUAN Xianzhong (2937)
A Stackelberg Game Model of Real-time Supply-demand Interaction and the Solving Method via Reinforcement Learning BAO Tao, ZHANG Xiaoshun, YU Tao, LIU Xizhe, et al (2947)
Fuzzy Random Optimal Operation of Hybrid AC/DC Microgrid With High Density Intermittent Energy Sources LI Peng, HAN Pengfei, CHEN Anwei, ZHENG Miaomiao (2956)
Smart Generation Control Based on the Virtual Wolf Pack Control Strategy XI Lei, LI Yudan, HUANG Yuehua, YANG Ping, XU Zhirong (2966)

• Power Transmission and Transformation Technologies •

- Research on the Topology and Characteristic of Multi-terminal HVDC Based on VSC and LCC LIU Shan, YU Jun, HE Zhiyuan, et al (2980)
A Novel Supplementary Frequency-based Damping Control for VSC-HVDC Station Connected to a Weak AC Grid WANG Ye, NING Linru, ZHAO Chengyong, GUO Chunyi (2989)
Small Signal Modeling of Two-terminal MMC-HVDC Based on AVM Model YU Yuexia, LIU Tianqi, WANG Shunliang, PENG Qiao, WANG Feng (2999)

• Ultra-supercritical Circulating Fluidized Bed Boiler Technology •

- Identification of Non-dimensional Tube Geometry Parameter for Heat Transfer of Supercritical Water in Internally Ribbed Tubes LI Zhouhang, TANG Guoli, et al (3007)
Experimental Investigation on Critical Heat Flux of Smooth Water Wall Tube With Low Mass Flux at Near-critical Pressures WANG Wenyu, QU Mofeng, ZHAO Yunjie, XIE Haiyan, et al (3015)
Study on New 660MW Ultra-supercritical CFB Boiler Technology With an Annular Furnace LÜ Qinggang, SONG Guoliang, WANG Dongyu, WANG Xiaofang, et al (3022)
Study on the Operation Optimization of Air Pollutant Emission in Circulating Fluidized Bed Units GAO Mingming, HONG Feng, MOU Ben, LIU Jizhen, YUE Guangxi, SONG Chang, et al (3033)
The In-situ Desulfurization With Ultra-fine Limestone for Circulating Fluidized Bed Boilers CAI Runxia, KE Xiwei, GE Rongcun, YANG Hairui, LÜ Junfu, ZHANG Man, et al (3042)

• Power Electronics and Drives •

- Fault-tolerant Strategy for Power Devices Failure in Rectifier Stage of Two Stage Matrix Converter HAN Na, ZHOU Bo, QIN Xianhui, LEI Jiaxing, SHI Baoping (3049)
Evaluation of Solder Failure of an IGBT Module Based on Transient Thermal Impedance CHEN Yigao, CHEN Minyou, GAO Bing, HU Borong, LAI Wei, XU Shengyou (3059)
Quasi-single-stage Distributed Photovoltaic Inverters With Parallel Bus and CPU Time-sharing Energy Management Control JIANG Jiahui, CHEN Daolian (3068)

• Electric Machines and Apparatus •

- Decoupling Control Based on Linear/Nonlinear Active Disturbance Rejection Switching for 3-degree-of-freedom 6-pole Hybrid Magnetic Bearing ZHU Huangqiu, ZHAO Zelong (3077)
The Method of Impedance Matrix and Parameter Extraction for Sectionally Powered Six Phase Cylindrical Linear Induction Motors HUANG Chuibing, XU Jin, WU Zhenxing, ZHENG Xinliang, et al (3087)
Voltage Build-Up Analysis of Loaded Self-excited Induction Generators Based on Hurwitz Stability Criterion LI Jia, WU Xinzen, WANG Haifeng (3094)
FRA Modeling and Fault Winding Identification of Autotransformer With Split Windings JIANG Junfei, ZHOU Lijun, LI Wei, LIU Huancheng, WANG Dongyang (3102)

• High Voltage Engineering •

- Research on Similarity of Electron Relaxation in Plasmas With Different Densities Based on Boltzmann Equation CAI Xinqing, WANG Xinxin, ZOU Xiaobing, LU Zhiwei (3109)
Formation Mechanism and Mitigation Strategy of Power Fluctuation Overvoltage for AC Half-Wave Length Transmission System ZHANG Yuanyuan, WANG Yi, HAN Bin, BAN Liangeng, XIANG Zutao, et al (3116)
Breakdown Characteristics and Decomposition Characteristics of $\text{C}_6\text{F}_{12}\text{O}$ and N_2 Mixed Gas Under AC Voltage TIAN Shuangshuang, ZHANG Xiaoxing, XIAO Song, ZHUO Ran, et al (3125)

• For Extended Summaries, Please See the Electronic Journals.