

全国中文核心期刊
中国科技核心期刊

中国科学引文数据库(CSCD)核心期刊
荷兰《文摘与引文数据库》收录期刊

ISSN 1674-3415
CN 41-1401/TM
CODEN DXBYAZ

电力系统保护与控制

Power System Protection and Control

电力系统保护与控制 第四十七卷 第十四期 二〇一九年七月 POWER SYSTEM PROTECTION AND CONTROL Vol.47 No.14 July 2019



自动化·智能化
成就未来
be Automation
be Intelligence
be Future



The Expert of Solutions and Services for Smart Grid
智能电网解决方案与服务专家

南京国电南自自动化有限公司
NANJING SAC AUTOMATION CO., LTD.

地址: 南京市江宁区水阁路39号 邮编: 211153
电话: 025-6983 2000 传真: 025-6983 3000



许昌开普电气研究院 主办

2019 14
第47卷 第14期 总第536期

电力系统保护与控制

DIANLI XITONG BAOHU YU KONGZHI

第 47 卷第 14 期(总第 536 期) 2019 年 7 月 16 日出版

目次

理论分析

- 基于 V2G 技术的电动汽车实时调度策略 陈凯炎, 牛玉刚(1)
- 考虑分布式光伏和电动汽车接入的配电网空间负荷预测方法 靳现林, 赵迎春, 吴刚(10)
- 含阻尼环节的电流源型风电虚拟同步发电机控制与分析 代林旺, 李少林, 秦世耀, 等(20)
- 计及 VSC 和 DFIG 的电网动态无功优化模型 范士雄, 韩巍, 刘幸蔚, 等(28)
- 基于继电保护信息与改进谱聚类分析的电网故障区域识别算法 刘建锋, 张科翌, 高亮, 等(37)
- VSC 变流器与弱电网交互作用的次同步振荡关键参数研究 杜平, 万玉良, 项颂, 等(44)

应用研究

- 风电场一次调频分层协调控制研究与应用 王瑞明, 徐浩, 秦世耀, 等(50)
- 光伏电站面向快速频率响应的优化控制技术研究与实践 王淑超, 段胜朋, 王健, 等(59)
- 基于柔直电网的暂态量保护方案及配合策略研究 田培涛, 陈勇, 吴庆范, 等(71)
- 微电网二次频率/电压控制器的反馈线性化设计及分布式实现 吴亮, 刘庆楷, 唐翀, 等(79)
- 基于微气象监测的输电线路覆冰动态过程估计模型 庄文兵, 祁创, 王建, 等(87)
- 基于语义网的智能站继电保护隐性故障辨识诊断技术研究 张驰, 谢民, 刘宏君, 等(95)
- 光伏发电直流侧共模电压干扰的抑制研究 张举良, 高志强, 董全智, 等(102)
- 10 kV 配网中性点小电阻接地系统的研究与设计 张健, 马伟, 朱亚奇, 等(109)
- 基于 GA-PSO 的电动汽车换电站时空双层充电优化策略 顾博, 李凤婷, 张增强, 等(116)
- 基于零序电流波形相似度的接地故障定位方法 尤向阳, 葛笑寒, 吴萍(125)
- 考虑风电不确定性和大用户直购电的电力系统经济调度 邓强, 詹红霞, 杨孝华, 等(131)

设计开发

- 能源互联网接入设备关键技术探讨 谈竹奎, 程乐峰, 史守圆, 等(140)
- 一种基于单母线分段的变压器风冷控制系统设计 张华, 林茂君, 张道农, 等(153)
- 电弧光保护原理分析及其校验测试设备的研发应用 陈新美, 魏超, 刘园伟, 等(160)

工程应用

- 小电阻接地方式对人身安全的影响及智能电阻接地方式研究 熊卫红, 毛兴华, 李景祿, 等(166)
- 基于关联变电站信息的断路器失灵保护技术研究 李宝伟, 倪传坤, 文明浩, 等(173)
- 直流输电工程直流电流互感器现场暂态校验技术 庞福滨, 刘琦, 嵇建飞, 等(179)

Power System Protection and Control

(Semimonthly)

Vol. 47 No. 14 (Ser. 536)

Jul. 16, 2019

CONTENTS

Theoretical Analysis

- Real-time scheduling strategy of electric vehicle based on vehicle-to-grid application *CHEN Kaiyan, NIU Yugang*(1)
- Space load forecasting of distribution network considering distributed PV and electric vehicle access
..... *JIN Xianlin, ZHAO Yingchun, WU Gang*(10)
- Control and analysis of current-source wind turbine virtual synchronous generator with damping coefficient
..... *DAI Linwang, LI Shaolin, QIN Shiyao, et al*(20)
- A dynamic reactive power optimization model considering reactive power support of DFIG and VSC
..... *FAN Shixiong, HAN Wei, LIU Xingwei, et al*(28)
- Power grid fault region identification algorithm based on relay protection information and improved spectral clustering analysis
..... *LIU Jianfeng, ZHANG Kezhao, GAO Liang, et al*(37)
- Study on key parameters of subsynchronous oscillation between VSC converter and weak power grid
..... *DU Ping, WAN Yuliang, XIANG Song, et al*(44)

Application Research

- Research and application on primary frequency regulation of wind farms based on hierarchical coordinated control
..... *WANG Ruiming, XU Hao, QIN Shiyao, et al*(50)
- Research and practice of fast frequency response oriented control optimization technology of PV power stations
..... *WANG Shuchao, DUAN Shengpeng, WANG Jian, et al*(59)
- Study on transient-based protection scheme and cooperation strategy based on flexible DC grid
..... *TIAN Peitao, CHEN Yong, WU Qingfan, et al* (71)
- Design of secondary frequency/voltage controller with feedback linearization and distributed implementation in microgrids
..... *WU Liang, LIU Qingkai, TANG Chong, et al*(79)
- Dynamic ice process estimation model of transmission line based on micrometeorological monitoring
..... *ZHUANG Wenbing, QI Chuang, WANG Jian, et al*(87)
- Research of identification and diagnosis technology for protection relay hidden fault in smart substation based on semantic web
..... *ZHANG Chi, XIE Min, LIU Hongjun, et al*(95)
- Research on suppression of photovoltaic DC side common-mode voltage interference
..... *ZHANG Juliang, GAO Zhiqiang, DONG Quanzhi, et al*(102)
- Research and design of neutral grounding resistance system for 10 kV distribution network
..... *ZHANG Jian, MA Wei, ZHU Yaqi, et al*(109)
- Optimization strategy of electric vehicle battery swapping station space-time bi-level charging based on GA-PSO
..... *GU Bo, LI Fengting, ZHANG Zengqiang, et al*(116)
- Grounding fault location method based on waveform similarity of zero-sequence current
..... *YOU Xiangyang, GE Xiaohan, WU Ping*(125)
- Power system economic dispatching considering the uncertainty of wind power and large consumers direct purchasing
..... *DENG Qiang, ZHAN Hongxia, YANG Xiaohua, et al*(131)

Design and Development

- Discussion on key technologies of energy internet access equipment *TAN Zhukui, CHENG Lefeng, SHI Shouyuan, et al*(140)
- A design of transformer air cooling control system based on sectionalized single bus scheme
..... *ZHANG Hua, LIN Maojun, ZHANG Daonong, et al*(153)
- Analysis of electric arc flash protection principle and development application of its standard calibration equipment
..... *CHEN Xinmei, WEI Chao, LIU Yuanwei, et al*(160)

Engineering Application

- Influence of small resistance grounding mode on personal safety and research of intelligent resistance grounding mode
..... *XIONG Weihong, MAO Xinghua, LI Jinglu, et al*(166)
- Research on breaker failure protection based on associated substation information
..... *LI Baowei, NI Chuankun, WEN Minghao, et al*(173)
- On-site transient performance calibration of DC current transformer for HVDC transmission project
..... *PANG Fubin, LIU Yu, JI Jianfei, et al*(179)