

美国《工程索引》(EI)核心期刊
荷兰Scopus收录期刊

中国科学引文数据库(CSCD)核心期刊
中文核心期刊

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

电力系统保护与控制

Power System Protection and Control



详情请访问 <http://www.sac-china.com>

客户热线 400-1-600268

SAC 国电南京自动化股份有限公司
GUODIAN NANJING AUTOMATION CO.,LTD.



许昌开普电气研究院有限公司 主办

2022 3

第50卷 第3期 总第597期

电力系统保护与控制

DIANLI XITONG BAOHU YU KONGZHI

第 50 卷第 3 期(总第 597 期) 2022 年 2 月 1 日出版

目 次

理论分析

- 基于 CRITIC 和改进 Grey-TOPSIS 的电能质量分级评估方法 赵洪山, 李静璇, 米增强, 等(1)
基于柔性调控零序电压的配电网高阻接地及单相断线故障的选相方法 曾祥君, 黄慧, 喻锟, 等(9)
含考虑 IDR 的冷热电联供微网的主动配电网经济优化调度 杨晓辉, 张柳芳, 吴龙杰, 等(19)
基于小波阈值去噪和 CEEMD 的混合三端直流输电线路故障测距 高淑萍, 徐振曦, 宋国兵, 等(29)
基于谐波特性的光伏孤岛与低电压穿越同步检测方法 赵禹灿, 姜旭, 孙福寿, 等(41)
基于双向动态重构与集群划分的光伏储能选址定容 李诗颖, 杨晓辉(51)
基于零序电压分布特征的小电流接地故障测距初探 刘江东, 董礼清, 薛晨, 等(59)

应用研究

- 基于可靠性灵敏度的 UHVDC 系统预防性检修优化 李生虎, 赵慧洁, 周慧敏, 等(68)
一种 Stacking 集成结构的台风灾害下停电空间预测方法 侯慧, 陈希, 李敏, 等(76)
多功能并网变换器容量优化控制策略 王祺, 赵兴勇, 张庚午(85)
一种新型超导直流故障限流器 熊佳玲, 李文鑫, 杨超, 等(93)
柔性直流电网潮流转移特性及安全运行影响分析 王子文, 张英敏, 李保宏, 等(103)
基于多通道卷积长短时记忆网络的输电线故障分类 沈银, 席燕辉, 陈子璇(114)
基于改进自适应密度峰值算法的日负荷曲线聚类分析 姚黄金, 雷霞, 付鑫权, 等(121)
考虑配电网综合运行风险的充电桩接纳能力评估与优化 曲大鹏, 范晋衡, 刘琦颖, 等(131)
基于多端行波时差的配电网故障定位方法 李练兵, 孙腾达, 曾四鸣, 等(140)
基于改进乌燕鸥算法的分布式电源优化配置 肖永江, 于永进, 张桂林(148)
特高压直流近区交流输电线路智能重合闸策略 曹虹, 夏秋, 俞斌, 等(156)
基于辨识解耦的含高渗透分布式光伏用户集群基线负荷估计方法 申洪涛, 刘宝铭, 任鹏, 等(164)

设计开发

- 继电保护装置检验测试智能体的研究与实现 彭桂喜, 袁思遥, 孙昊, 等(174)

工程应用

- 模块化多电平直流融冰装置谐振机理及抑制措施研究 班国邦, 牛唯, 杨旗, 等(180)

期刊基本参数: CN 41-1401/TM * 1973 * s * A4 * 192 * zh * P * ￥80.00 * * 21 * 2022-2

Power System Protection and Control

(Semimonthly)

Vol. 50 No. 3 (Ser. 597)

February 1, 2022

CONTENTS

Theoretical Analysis

Grading evaluation of power quality based on CRITIC and improved Grey-TOPSIS	ZHAO Hongshan, LI Jingxuan, MI Zengqiang, et al(1)
Voltage phase selection method for high resistance grounding and a single-phase disconnection fault of a distribution network based on flexible control of zero-sequence voltage	ZENG Xiangjun, HUANG Hui, YU Kun, et al(9)
Economic optimal dispatch of an active distribution network with combined cooling, heating and power microgrids considering integrated demand response	YANG Xiaohui, ZHANG Liufang, WU Longjie, et al(19)
Fault location of hybrid three-terminal HVDC transmission lines based on wavelet threshold denoising and CEEMD	GAO Shuping, XU Zhenxi, SONG Guobing, et al(29)
Simultaneous detection method for photovoltaic islanding and low-voltage-ride-through based on harmonic characteristics	ZHAO Yucan, JIANG Xu, SUN Fushou, et al(41)
Capacity and location optimization of photovoltaic and energy storage based on bidirectional dynamic reconfiguration and cluster division	LI Shiyi, YANG Xiaohui(51)
Fault location of a small current grounding fault based on distribution characteristics of zero sequence voltage	LIU Jiangdong, DONG Liqing, XUE Chen, et al(59)

Application Research

Reliability sensitivity-based optimization for a UHVDC transmission system with preventive maintenance	LI Shenghu, ZHAO Huijie, ZHOU Huimin, et al(68)
A space prediction method for power outage in a typhoon disaster based on a Stacking integrated structure	HOU Hui, CHEN Xi, LI Min, et al(76)
Capacity optimization control strategy of a multi-function grid-connected converter	WANG Qi, ZHAO Xingyong, ZHANG Gengwu(85)
A new type of superconducting DC fault current limiter	XIONG Jialing, LI Wenxin, YANG Chao, et al(93)
Analysis of power flow transfer characteristics and influence on the safety operation of a flexible DC grid	WANG Ziwen, ZHANG Yingmin, LI Baohong, et al(103)
Transmission line fault classification based on MCCNN-BiLSTM	SHEN Yin, XI Yanhui, CHEN Zixuan(114)
Cluster analysis of daily load curves based on an improved self-adaptive density peak clustering algorithm	YAO Huangjin, LEI Xia, FU Xinquan, et al(121)
Assessment and optimization of charging pile acceptance capacity considering the comprehensive operational risk of a distribution network	QU Dapeng, FAN Jinheng, LIU Qiying, et al(131)
Fault location method for distribution networks based on traveling wave time difference	LI Lianbing, SUN Tengda, ZENG Siming, et al(140)
Optimal configuration of distributed power generation based on an improved sooty tern optimization algorithm	XIAO Yongjiang, YU Yongjin, ZHANG Guilin(148)
Intelligent reclosing strategy for near area AC transmission lines connected with UHVDC	CAO Hong, XIA Qiu, YU Bin, et al(156)
Aggregated baseline load estimation method under high distributed photovoltaic penetration based on identification and decoupling	SHEN Hongtao, LIU Baoming, REN Peng, et al(164)

Design and Development

Study and implementation of a test agent for relay protection devices	PENG Guixi, YUAN Siyao, SUN Hao, et al(174)
---	---

Engineering Application

The resonance mechanism and suppression measures of DC ice-melting equipment based on a modular multilevel converter	BAN Guobang, NIU Wei, YANG Qi, et al(180)
--	---