The use of modern optimization algorithms, such as Manta Ray Foraging Optimization (MRFO) and Marine Predators Algorithm (MPA), has further improved the performance of hybrid converters by minimizing the input ...

It also highlights the importance of adaptive learning techniques for controlling autonomous microgrids. It further presents optimization-based computing techniques like fuzzy ...

Microgrids play a crucial role in modern energy systems by integrating diverse energy sources and enhancing grid resilience. This study addresses the optimization of microgrids through the deployment of high ...

With the increasingly prominent defects of traditional fossil energy, large-scale renewable energy access to power grids has become a trend. In this study, a microgrid operation optimization method, including power-to ...

The original load control model of microgrid based on demand response lacks the factors of incentive demand response, the overall satisfaction of users is low, the degree of demand response is low ...

Intelligent algorithms, notably Spider Monkey Optimization and Firefly Algorithm, have demonstrated efficacy in solving optimization problems within radial distribution networks and ...

The PSO algorithm is also a widely used algorithm [85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100]. Zhang et al. developed an efficient search algorithm combining the PSO algorithm and the SA algorithm ...

1. Introduction. Microgrid (MG) is a cluster of distributed energy resources (DER) that brings a friendly approach to fulfill energy demands in a reliable and efficient way in ...

On the plus side, compared with the centralized large power grid, the microgrid, as a distributed generation system, can save operation costs, reduce line losses, and achieve ...

Evolutionary algorithm Microgrid Sizing Unit commitment ... (PV) and wind turbines (WT) are more and more commonly used to generate electricity. The integration of such intermittent sources ...

Web: https://www.nowoczesna-promocja.edu.pl