Microgrid Optimization and Dispatch Analysis

The authors applied MFO to solve the economic dispatch problem in microgrids, highlighting its capability to effectively explore the solution space and yield competitive results ...

This study presents a comprehensive analysis of economic dispatch and optimal power flow in microgrid systems, address-ing both single-bus and three-bus grid-tied configurations.

This section details the methodology that we employ to generate independent and identically distributed scenarios that span multiple years and serve as input to a microgrid design and ...

To further enhance the efficiency of solving the economic dispatch model, this study combines chaotic mapping and dynamic opposition-based learning with the traditional Grey Wolf ...

It explores the integration of hybrid renewable energy sources into a microgrid (MG) and proposes an energy dispatch strategy for MGs operating in both grid-connected and standalone modes.

Power dispatch in microgrids refers to the process of managing and distributing power generated by DERs within a microgrid. This can be a challenging task due to factors such as the ...

This work compares the performance of three optimization methods for solving the economic dispatch problem (EDP) in microgrids with energy storage systems (ESSs).

diction-dependent dispatch methods can face challenges when renewables and prices predictions are unreliabl. in microgrid. Instead, this paper proposes a novel prediction-free two-stage coordinated ...

Based on the assumption that the microgrid adopts the grid-connected mode, this study proposes a bi-level robust optimization framework for interconnected system coordination to address ...

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Abstract: This paper presents an improved deep reinforcement learning (DRL) algorithm for solving the optimal dispatch of microgrids under uncertaintes.

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