Ebat in microgrid optimization

The concept of microgrids (MGs) as compact power systems, incorporating distributed energy resources, generating units, storage systems, and loads, is widely acknowledged in the ...

Published in: 2024 International Conference on Distributed Computing and Optimization Techniques (ICDCOT) Article #: Date of Conference: 15-16 March 2024 Date Added to IEEE Xplore: 08 May 2024

To effectively optimize microgrid operations, the proposed framework integrates multiple optimization algorithms that work in conjunction to enhance renewable energy forecasting, energy ...

This research provides a comprehensive and practically validated energy management architecture for BES-integrated microgrids.

In this article, a microgrid configuration of a photovoltaic (PV) plant with fuel cell (FC) and battery storage systems has been optimally designed.

Ref. [29] proposes an enhanced adaptive bat algorithm (EABA) for energy scheduling optimization in a microgrid system.

This study uses a novel optimization technique called Enhanced Bat Algorithm (EBAT) as a reliable optimisation method to pinpoint the ideal sites for distributed generation (DG) units in a microgrid.

To overcome this problem, the proposed EABA introduces an information sharing mechanism and assigns an adaptive weight to the speed of each bat in the previous generation. ...

This approach helps to practical microgrid decision making and optimization of dynamic energy systems. The energy management process were also able to maximize photovoltaic production where ...

The best location for Distributed Generation (DG) sources in a microgrid can be determined using the

Enhanced Bat Algorithm (EBAT). The goal is to minimise system losses, enhance voltage stability, or ...

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