Title: Genetic Algorithm Solution for Microgrid
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Three AI techniques, Genetic Algorithm (GA), Artificial Bee Colony (ABC), and Ant Colony Optimization (ACO), are employed to optimize the optimal composition of energy sources ...

These AI models maximize the use of renewable energy, reduce wastage, and improve microgrid resilience and responsiveness to supply and demand fluctuations. Experiments demonstrate the ...

Therefore, this paper presents a genetic algorithm-based approach that facilitates incorporating multiple objectives for grid partitioning by formulating two types of problems-- node allocation and edge ...

Microgrid systems with hybrid renewable energy resources, such as PV, wind, have been widely used with storage devices to supply power to certain load demands. However, technical ...

This research contributes to microgrid optimization knowledge, promoting the adoption of intelligent and sustainable energy systems. Proposed Model Diagram depicting the use of ...

This study investigates the use of genetic algorithm methods to build and optimize hybrid renewable energy microgrids. The objective is to improve the efficiency, dependability, and sustainability of the ...

One of nature"s problem-solving tool, genetic algorithms, prove to be revolutionary approach in addressing the intricate issues related to microgrid design.

In this study, a Multiobjective Genetic Algorithm (MOGA) is applied to the technical and economic problems of the MG. This stochastic programming considers demand response (DR) ...

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