

This paper presents a review of the microgrid concept, classification and control strategies.

Equipped with advanced energy management techniques, smart microgrids offer a dynamic, decentralized, and efficient approach to generating, distributing, and consuming energy.

A microgrid, regarded as one of the cornerstones of the future smart grid, uses distributed generations and information technology to create a widely distributed automated energy delivery ...

This systematic review, following the PRISMA 2020 methodology, analyzed 66 studies focused on advanced energy storage systems, intelligent control strategies, and optimization ...

Unlike other literature studies, this study presents a comprehensive and critical analysis of microgrid energy management systems and control technologies. In addition, the protection and ...

This review has examined the architecture, components, and technological enablers that define modern smart microgrids, alongside a detailed exploration of how AI, and particularly DRL, contributes to ...

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

portant aspects of future microgrid research are outlined. This study would help researchers, scientists, and policyma. ers to get in-depth and systematic knowledge on microgrid. It will also contribute to ...

This review article (1) explains what a microgrid is, and (2) provides a multi-disciplinary portrait of today"s microgrid drivers, real-world applications, challenges, and future prospects.

As our reliance on traditional power grids continues to increase, the risk of blackouts and energy shortages becomes more imminent. However, a microgrid system,

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