

Dec 25, 2023&ensp;&#0183;&ensp;The major objective of the implemented study is to design and build an artificial intelligence and optimization-based energy management system for electric cars.

Feb 1, 2025&ensp;&#0183;&ensp;This study proposes a deep reinforcement learning-based control strategy for power management in hybrid energy storage-based microgrids. The proposed hybrid energy storage ...

Oct 12, 2025&ensp;&#0183;&ensp;This paper studies the coordinated optimization control strategy of multi-energy storage system (MESS), especially improving the energy utilization efficiency and economic ...

To this end, we propose a Special Issue titled &quot;Intelligent Control, Optimization and Management of Sustainable Battery Energy Storage System&quot;. This issue aims to bring together researchers ...

May 8, 2024&ensp;&#0183;&ensp;Microgrids (MGs) have evolved as critical components of modern energy distribution networks, providing increased dependability, ...

Mar 1, 2023&ensp;&#0183;&ensp;Recently, plenty of studies have been conducted to examine the feasibility of applying artificial intelligence techniques, such as particle swarm optimization (PSO), artificial ...

Nov 1, 2023&ensp;&#0183;&ensp;A cloud computing-based power optimization system (CC-POS) is an important enabler for hybrid renewable-based power systems with higher output, optimal solutions to ...

Sep 3, 2024&ensp;&#0183;&ensp;Based on the constructed model, an arithmetic example analysis of the energy storage system is carried out using artificial intelligence.

6 days ago&ensp;&#0183;&ensp;This paper proposes a machine learning-based intelligent control strategy for greenhouses using a solar photovoltaic system combined with battery energy storage system ...

Jul 21, 2025&ensp;&#0183;&ensp;To address these challenges, this study proposes an intelligent current management strategy using a battery/supercapacitor hybrid ...

May 15, 2025&ensp;&#0183;&ensp;This study contributes to select the system voltage fluctuation as the optimization objective and uses Improved Archimedes optimization algorithm (IAOA) to analyze the control ...

Nov 18, 2025&ensp;&#0183;&ensp;Energy storage is one of the core concepts demonstrated incredibly remarkable effectiveness in various energy systems. Energy storage systems are vital for maximizing the ...

Mar 15, 2025&ensp;&#0183;&ensp;Power tower concentrated solar power systems integrated with thermal energy storage systems offer promising solutions for reliable and cost-effective energy production. ...

Sep 1, 2024&ensp;&#0183;&ensp;Abdalla et al. [48] provided an overview of the roles, classifications, design optimization methods, and applications of ESSs in power systems, where artificial intelligence ...

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