Electric vehicle solar container strategy research

This study presents an advanced energy management strategy for solar-assisted fuel cell hybrid electric vehicles (FC HEVs), integrating lithium-ion battery storage, proton exchange membrane fuel cells ...

Utilizing solar energy resources to replenish electricity in electric vehicles (EVs) is gaining increasing attention on low-carbon highways. Currently, the primary methods for EV power replenishment are ...

To tackle the problem of EV charging and exploit the abundance of solar energy available, this research proposes a solution by integrating solar photovoltaic (PV) to EV battery charger charges directly and ...

We discuss the benefits of incorporating photovoltaic systems into EVs, such as reduced grid dependency and increased vehicle autonomy, and examine strategies for optimizing integration, ...

The electric vehicles (EVs) connected to the charging stations (CSs), as a part of autonomous micro-grid (MG), introduce additional fluctuations due to their dynamic behaviour owing ...

This research delves into innovative solutions for integrating renewable solar energy into electric vehicle (EV) systems to mitigate limitations associated with battery storage and charging ...

It also explores strategies for large-scale Electric Vehicle charging to improve energy management. This paper identifies key research gaps in the Electric Vehicle field through a ...

The scoping review is based on 95 full-text articles and analyzes 43 commonly discussed electric vehicle charging strategies, with most literature focusing on real-time pricing and ...

Electric vehicles (EVs) are a new emerging technological advancement that has apprehended the interest of researchers as well as regulators, primarily due to their connection with ...

The Ambarli container port, which handles approximately 30% of Turkiye"s total container volume, has been chosen as the application area of this case study. Carbon emissions ...

This research proposes a new approach to increase the utilization of electric vehicles (EVs) by establishing solar-powered charging stations. Using ArcGIS 10 8.2 software, the optimal ...

Electro-mobility plays a key role to achieve climate neutrality. Electric vehicles, partially powered by vehicle-integrated photovoltaics, are now emerging in the market. This study reviewed ...

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Developing electric vehicle (EV) energy storage technology is a strategic position from which the automotive industry can achieve low-carbon growth, thereby promoting the green ...

This paper presents a comprehensive study on the implementation of power management strategies in electric vehicles equipped with solar panels. The research focuses on the ...

This paper aims to address the integration of solar PV panels into electric vehicle (EV) charging infrastructure addresses several critical needs by enhancing sustainability and reducing ...

Popularization of electric vehicles (EVs) is an effective solution to promote carbon neutrality, thus combating the climate crisis. Advances in EV batteries and battery management ...

One research line is dedicated to integrating and analyzing the use of advanced technologies in the yard, such as automated cranes and electric or hybrid handling equipment [5]. In ...

Nowadays, research on charging battery electric vehicles using mobile energy storage trucks has emerged as a significant area of interest. Therefore, this paper proposes a two-stage ...

A roadmap for the sustainable integration of solar EVs into energy systems is presented, offering insights into the future of energy-efficient and decarbonized transportation.

It is crucial to accurately calculate the cost function of the energy management strategy (EMS) of the hybrid powertrain to improve the hydrogen economy of the system. This paper proposes ...

By simulating real- world scenarios, these batteries can be integrated into various applications such as smart grids, EV charging stations, Keywords: Second-life Batteries, Electric ...

Shifting towards renewable energy sources is essential for achieving sustainability goals. This research aims to develop and practically validate an integrated photovoltaic (PV) system ...

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