Service Quality of Two-Way Charging for Solar-Powered Containers in Subways

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ABSTRACT The urgent need for sustainable transportation has highlighted the integration of solar photovoltaic (PV) panels into electric vehicle (EV) charging infrastructure. This review examines the benefits, ...

Five strategically placed solar-powered charging stations on distinct buses are evaluated under three charging modes: dumb charging, smart grid-to-vehicle (G2V) charging, and smart...

Solar-powered electric vehicle (EV) charging infrastructure can be categorized into two main configurations: PV-grid and PV-standalone systems. Each system has distinct advantages and limitations.

The evaluation of GBDT-JS performance involves a comparative analysis with existing techniques. This assessment reveals that the proposed ...

Using real parking occupancy data collected over a full year, smart charging at a PV-powered parking lot near a suburban train station on the outskirts of Lisbon, Portugal, revealed a significant reduction (over 35%) in ...

This review article gives a comprehensive review of existing research on renewable solar photovoltaic (PV) nanogrid, which is described from small-scale power system with a single domain for ...

This paper explores the performance dynamics of a solar-integrated charging system. It outlines a simulation study on harnessing solar energy as the primary Direct Current (DC) EV charging source.

To ensure consistent charging service regardless of weather fluctuations, we propose a hybrid energy solution combining solar and wind power. This approach guarantees continuous ...

This review article also provides a detailed overview of recent implementations on solar energy-powered BEV charging stations, pointing out technological gaps and future prospects to serve as a guideline ...

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An algorithm of high efficiency with six typical charging modes is designed, and two central criteria are presented, favoring photovoltaic self-consumption through EV charging, reducing peaks while ...

The growth in Seventh Sustainable goals with Electric Vehicles has been seen day by day due to limitations of traditional combustion engine especially which are having adverse impact on environment. Traditional method ...

Solar powered charging systems offer a clean and efficient alternative. This research focuses on designing and evaluating such a system to optimize energy use, reduce environmental impact, and enhance the EV ...

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