

Development of Solar Operated Wireless Electric Vehicle Charging System

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Abstract: *This paper is related to development of solar operated wireless electric vehicle charging system. The development of a solar-operated wireless electric vehicle charging system represents a significant advancement in sustainable transportation and energy infrastructure. By integrating solar power technology with wireless charging capabilities, this system offers a comprehensive solution for reducing reliance on fossil fuels and minimizing the environmental impact of transportation. The integration of solar power allows for the generation of clean and renewable energy to power electric vehicle charging stations. This not only reduces carbon emissions associated with traditional grid electricity but also provides a more decentralized and resilient energy supply. Furthermore, the wireless charging feature enhances user convenience and accessibility. Drivers can simply park their electric vehicles over the charging pad, eliminating the need for physical plug-in connections. This seamless and automated charging process supports the widespread adoption of electric vehicles by addressing common barriers such as charging infrastructure availability and user convenience. In addition to these benefits, the development of a solar-operated wireless electric vehicle charging system requires careful consideration of technological integration, efficient energy conversion, and effective management of power distribution. Addressing these challenges can lead to a more robust and reliable charging infrastructure that supports the continued growth of electric vehicle usage. This research aims to provide insights into the technical, economic, and environmental aspects of implementing such a system, as well as its potential impact on sustainable transportation and energy transition.*

Keywords: Solar Operated Wireless Electric Vehicle, Carbon Emission, Efficient Energy, Robust and Reliable