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A Renewable Energy Based Wireless Charging System for Portable Computing Devices

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Abstract: *In this paper, we propose the design and development of a solar-powered wireless laptop charging system to address the limitations of conventional wired charging methods in terms of mobility and energy efficiency. By integrating solar energy harvesting with wireless power transmission technology, this system eliminates the need for physical charging cords, offering a portable, sustainable, and efficient charging solution. The proposed approach enhances device mobility, reduces dependence on traditional electrical sources, and contributes to the advancement of greener power alternatives for modern electronic devices. This system is designed to maximize energy utilization from renewable sources while ensuring seamless power delivery to laptops. Through this innovative charging method, we aim to support the growing demand for eco-friendly and portable energy solutions, paving the way for a more sustainable and convenient future in electronic device charging.*

Keywords: Wireless Power Transmission, Solar Energy Harvesting, Laptop Charging System, Renewable Energy, Portable Charging Solution

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