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## Development and Optimization of Solar-Powered Portable Mobile Chargers: A Review and Case Study

Mr. Vikram Dilip Deshmukh, Shreeharsh Pisal, Girish Pawar, Malhaar Phadtare, Aayush Salunkhe:, Chaitanya Rathod, Sagar Pisal, Ammar Sayyed Department of Engineering Sciences

AISSMS Institute of Information Technology, Pune, India

Abstract: Solar-powered mobile chargers represent a promising solution for energy needs in remote and outdoor environments. This paper reviews existing technologies and experimental work in the domain of portable solar chargers, highlighting advancements in design, efficiency, and integration. A specific focus is placed on wearable solar systems utilizing high-efficiency micro-batteries, solar caps, and controlled current charging circuits. The study underscores the feasibility of integrating solar energy into compact, user-friendly, and reliable mobile charging systems.

Keywords: Solar-powered mobile chargers



