

RFID Based EV Charging Station (SOLAR)

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Abstract: *As the number of Electric Vehicles (EVs) proliferates, the significance of charging infrastructure escalates, necessitating solutions that balance the demands of the local distribution grid and EV users. This paper proposes the integration of an RFID system for user identification and charging authorization within a smart charging infrastructure, facilitating charge monitoring and control. The RFID technology offers a cost-effective means to identify and authorize vehicles for charging, ensuring efficient charging operations while adhering to grid constraints and fulfilling the requirements of EV drivers. Charging protocols are voltage-based, and the system enables remote monitoring of charging levels via an Internet of Things (IoT) enabled server, providing accessibility from any location at any time.*

Keywords: Battery, Charge controller, At-Mega 328, Solar PV Panel.

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