

Mini Project

My mini project is 'A PV-Powered Multi-port Converter for an Electric Vehicle Charging System'.

This project aims to use a renewable source like PV for the DC fast charging of both 2-wheelers and 4-wheelers simultaneously.

A PV panel consisting of around 90 PV cells delivers power for EV charging. It is connected to a Z-source inverter for converting DC to AC as well as stepping up the magnitude of the AC voltage. The outputs from the inverter are given to two high-frequency transformers. The outputs from the high-frequency transformers are then rectified to the required voltages. In our case, one of the ports supplies 400V DC for 4-wheelers and the other supplies 50V DC for 2-wheelers.