A Simulated Design of an Energy-Efficient Solar-Powered Smart Kitchen

Summary:

A kitchen design had presented in this study that optimizes solar power for cooking, water pumping, and other kitchen-related loads. Solar energy had harnessed as a power source through an MPPT controller. A solar tracking device has also included ensuring that the maximum quantity of solar energy consumption. Renewable energy might power four essential kitchen appliances, according to the idea of this project's design.The solar energy supplies load directly, and the rest of the energy is stored in a lead-acid battery. The battery supplies power during the night to execute the AC loads via an inverter.This process represents a kitchen concept that is safe, cost-effective, and environmentally good for human health.