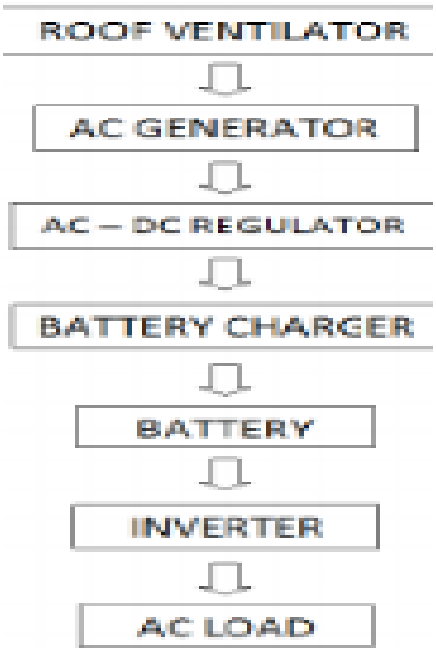
Electricity Generation from Roof Ventilator

Abstract

This project has a roof ventilator that can generate electricity. The new modification of the roof ventilator system is by adding the extra fins to help it to spin faster and more efficient. This system is suitable to use for the low speed wind places. The system is containing the combination of the AC generator, roof ventilator, solar charger, batteries and inverter. This system managed to produce 13Vdc to 14Vdc to charge the 12Vdc batteries system. The operational concept of the system is the load will use the energy from the batteries that charged using roof ventilator. The observed performances of system are the voltage and current of the roof ventilator, batteries and the load.

Introduction:

Nowadays, the world is talking about the green energy that can save the world from pollutions and green house effects. The main function of the free spinning roof ventilator is to provide fresh air in roof space and living area all year round 24 hours a day free of charge. The additional function of this project is to produce the electrical energy from the roof ventilator that will spin. The new idea of the additional fins is helps to improve the ventilator speed and electrical production. The human being not just can enjoy the benefits of the better air ventilation in the house, but also have extra electricity supply for load appliances such as radio, mobile phone charger, etc. The main component of the system is the DC motors. It will convert the kinetic energy from the warm air to the electricity for our usage. This free electricity has to use the battery charger to allow the charging process running. This to ensure that there will be no back-flow current if the roof ventilator is not functioning. If we want to drive an AC load then inverter is use to convert from DC to AC for our AC load usage


ROOF VENTILATOR
AC GENERATOR
AC – DC REGULATOR
BATTERY CHARGER
BATTERY
INVERTER
AC LOAD