GENERATE ELECTRICITY BY USING WASTE GARBAGE

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ABSTRACT

After few years, shortages of the energy sources, and these challenges can be decreasing the fossil fuel reserves to the growth of the world population, Global climate change, and increased in wastes levels (solid/liquid) and can be resulted to the electricity crisis. In several developing countries, the electricity crisis obstructs both socioeconomic and technological sustainable evolution. Also, it leads to reducing job availability due to shutting down several industries or relocating to neighbouring countries to such an issue. The goal of making this project is to generate electrical energy from waste garbage like plastic, rubber and other waste material, etc. and store this electrical energy in the battery through the protection circuit and use that electrical energy to operate the whole system. So, in this Project, we show successfully How to generate electricity by Waste Garbage and Store electricity in Battery successfully.

Keyword:- *Solar panels, Led Bulbs, Fire box, Inverter circuit, Battery 4 V, Resistors,transistor,Diode IN4007,Pelttier Module.*

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1. INTRODUCTION:

In the present world, electricity is very necessary. So, to generate electricity we use many fuels like coal, gas, diesel, uranium, etc. These all fuels are in limited quantity. Which,we could up to 70 to 80 years. These fuels are used in different power plants to generate electricity.In thermal power plants - coal, nuclear power plants - uranium, gas power plants – gas, and in diesel power plants - diesel is used as fuel to generate electricity. In This Project when burning start then heating generate and pettier module start converting heat to electricity and that electricity, we can see on voltage module display, we can see how much voltage generate by waste garbage and we Electricity generating perfectly then gives to the output power supply to LED Bulb (9w) start glowing and our idea everyone can see in live working, Our Idea is work for generating electricity by waste materials. So, this is our best live working idea.

Fig –1: Actual View of Model

2. METHODOLOGY:

When we burn the waste materials, then solar panels convert heat into electricity. Also we have used Peltire Module which is converts heat energy into electricity. The Red LED Bulb used to show the electric power. After that this electricity is fed to the Battery for Battery charging through the protection circuit. The protection circuit is used to protects the solar panel from reverse current from battery. The waste material are is burned in the fire box. The produced ash is collect and disposes it. The inverter circuit is converts 12vDC to 230AC. This ac electricity is now fed to LED Bulb(9w). And that is electricity is generated by using waste garbage.After that You can See Full Successfully Generating Electricity by Waste Garbage.

3. FUCTIONAL BLOCK DIAGRAM:

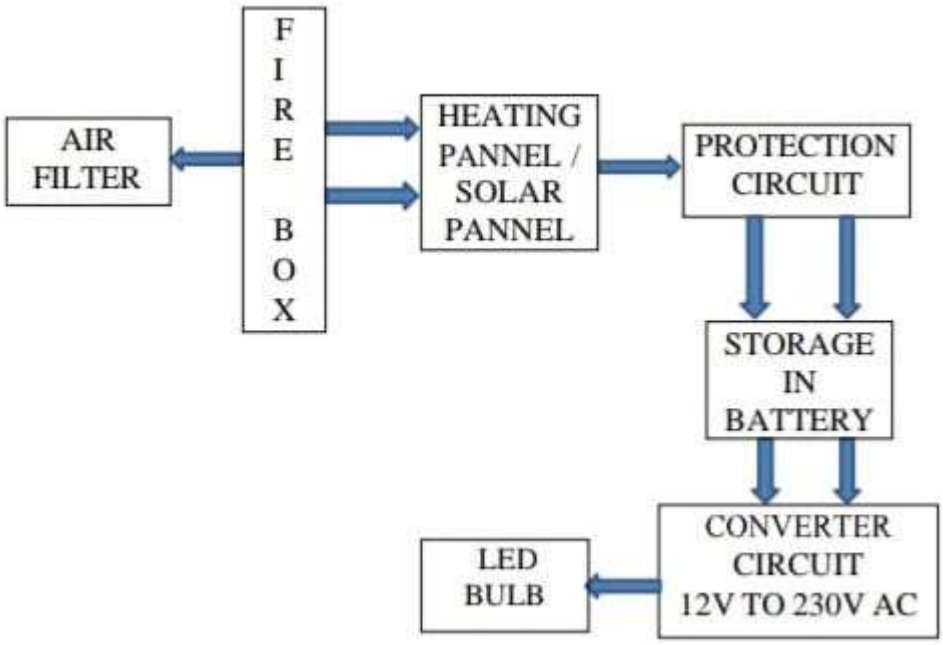

Fig -2: Functional Block Diagram

3.1 HARDWARE RESULTS:

In this prototype when we are start heating waste material inside Fire box the heat is generated.This heat is to be collected by heating panels and solar panels. The solar panels will collect the heat and convert the heat energy into the electrical energy and that will be transferred to protection circuit board. Which is constructed with IN4007 Diode and resistor,transistor connected. It is used for protects the solar panel from reverse current from battery. Then the heating sensor is will be sensing the heat and connect circuit to output of LED Bulbs and the bulbs will glow until the energy getting stored and until the heating sensor sensing the energy generation. The bulb will glow uninterruptedly while the energy generation and battery storage. This stored energy can be used for anything. In the present situation waste material at any place, we can see with some procedure collect everything and we can use the prototype to generate the more energy for utilization. With this we came know that the energy generation by this method is very easy with some precaution. This prototype helps us to know about waste utilization. With this project we can increase our own energy at industrial purpose and use them for some needs.

3.2 ADVANTAGES:

- All non-recyclable waste can be used for generating electric power.
- Most of the heat consumed to generate power so less emission of pollutant Gas from plant.
- Future expansion is easy.
- More energy will be generated.

4. CONCLUSIONS:

In this project, we demonstrate how to effectively generate electricity from waste Materials and how to control pollution using pollution control filters. When we finish our project, we check to see if it is fully functional. At that point, it was functioning flawlessly, making it the best Project for both working and demonstrating. How to Produce Electricity from Waste.

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