

GENERATION OF ELECTRICITY USING SOLID WASTE

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Keywords:

Municipal Solid Waste, Waste to Energy.

Introduction:

The purpose of making this project is to generate electrical energy from bad materials like plastic, rubber, garbage and bad stuff etc. and store that electrical energy in the battery through the circuit and use that electrical energy to operate the whole project. And the LED bulb is shown to be turned on and the use of filters controls pollution from energy production.

In This Project when burning starts then heating generate and heating penal starts converting heat to electricity and that electricity we can see on multimeter display, we can see how much voltage generate by waste materials and we electricity-generating perfectly then automatic heating sensor on the output power supply then Big LED bulb start glowing and our idea everyone can see in live working, Our Idea 100% work for generating electricity by waste materials and when we burn anything then pollution start generating so we use pollution control filter for controlling carbon pollution so when carbon cross to filter then we store the carbon and carbon use any area in real life. So this is our best live working idea.

Energy recovery from the combustion of municipal solid waste is a key part of the non-hazardous waste management hierarchy, which ranks various management strategies from most to least environmentally preferred.

Using Jack, electricity generator, controlling switch, circuit for LED bulbs, heating sensors, battery and power supply circuit, we try to achieve electricity from solid waste. Basic principle included in this is conversion of heat energy into electrical energy, Working on a simple photoelectric effect. Since generation of electricity from heat causes air pollution we have also connected a catalytic converter. Catalytic converter consists of a pollution control filter, water cooler filter, water pump and roller filter.

Objectives:

1. Feasibility study about the possibility to recover energy from solid waste.
2. Energy recovery of MSW through different technologies.

3. To recycle plastic and generate electricity using it.
4. This helps to meet up the power supply for city dwellers and reducing space for new landfills.

Methodology:

The first step before the project implementation was to review The project scope and research area. Then the next task was to Design the mechanical structure and electrical structure of the conveyor belt which is to be built. Then, if all the design had been finalized, the implementations of the hardware and the circuitry took place. Reaching the pick of the project, the programming segment Took place especially for the heating penal output, heating sensor sensing process and Output to the LED Bulb glow for. Last But not least, certain modification on the circuitry and soft-Ware took place in order to make the system perform in finer Movements. Thus, troubleshooting process also took place to Correct certain faulty processes while the system was performing its task.

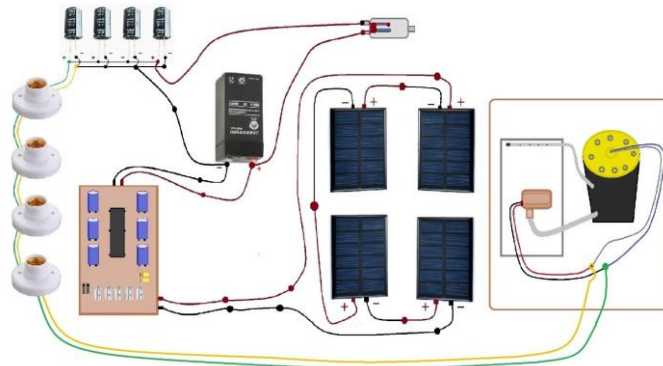
Working Principle:

Simply put, a Heating panel works by allowing photons, or particles of light or heat ,to knock electrons free from atoms, generating a flow of electricity. Heating panels actually comprise many, smaller units called photovoltaic cells.(Photovoltaic simply means they convert heating or light into electricity.)

A p-n junction is formed by placing p-type and n-type semiconductors next to one another. The p-type, with one less electron, attracts the surplus electron from the n-type to stabilize itself. Thus the electricity is displaced and generates a flow of electrons, otherwise known as electricity.

When heat hits the semiconductor, an electron springs up and is attracted toward the n-type semiconductor. This causes more negatives in the n-type semiconductors and more positives in the p-type, thus generating a higher flow of electricity. This is the photovoltaic effect.

Overall connection:



Results and Conclusions:

1. Recover energy from solid waste.
2. Recycle plastic.
3. Space for new landfills.
4. Alternative in resolving the waste disposal various colonies/villages

In This Project we show How to Generate Electricity by waste materials is successfully and we show in the project how to control pollution through Pollution control filter, When we making complete our project then we check it's full working, that time he's working is very good without any problem So our Project is best for working and Showing, How to Generate Electricity by Waste materials.

Scope for future work:

1. We can make high quality heating penal for generate high electricity
2. We can make large level burning box with easily heating penal connecting system
3. We can make best storage system by generate electricity by waste materials
4. Reduction of pollution: Recycling helps to reduce energy usage, consumption of virgin raw materials, air and water pollution.
5. Reduction of energy consumed by processing virgin raw materials partially counterbalanced by energy consumed for recycling.