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Gravity Powered Electrical Generator

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Abstract: Now a days demand for electricity is increasing day by day, so the availability of non-renewable energy resources will become unavailable in future due to un availability of fossil fuels .So the alternate method for generating electricity is renewable energy resources (SOLAR, WIND, TIDAL, etc...) But these energy resources also only available on particular climatic conditions and seasons only. So we choose gravity to generate electricity which available for all (24*7) in all areas throughout the world. It is the main abstract of our project.

Keywords: Renewable source, Gravitational force, Pendulum, Kinetic energy, Dynamo.

I. INTRODUCTION

Now a day there is an energy demand increasing day by day with rapid growth in industrialization and modernization but the energy resources are rapidly decreasing at high extent. so there is a need for generating a power from renewable sources. Due to the availability of gravity all over the earth, then the easy way to produce power is using gravity.

Within a few years the energy resources will be finished and hence there will be lack of fuel (coal, water, wood.)for power generation.

Other renewable sources like solar, wind, biomasses, etc. are not available 100% efficiency. Therefore the gravity power generation is one of the methods of generating a power which fulfil the energy demand within a few instant of day.

It causes pollution and global warming while satisfying the demand of energy. After few year non-renewable sources will be finish like coal, wood...

Instead of those sources like solar, wind, biomass is mostly used. It is available at particular instant of time. That why we need some other sources to fulfilling our energy demand and requirement of power production.

For that we are introducing the innovative method of generating power by gravity, which is present all time at anywhere on the earth. It didn't work as they thought theoretically.

It is cover up the gravitational energy away from an object, so that can result into energy from gravitational range, which may result into generation of gravitational electrical power technologically beneficial. Hence to provide solution for this problem, to apply gravity power generation mechanism, to give better efficiency to the system and improve the working of power generation.

A. Objectives

1) To achieve Power generation at any place & time.
2) To develop Low cost of system compares another.
3) To achieve more Efficiency.
4) To fulfill the need of electricity in future.

B. Need For Research And Development

On the earth, the search for safe clean and renewable energy is lesser, so we should use the maximum renewable energy of the earth as gravity.

The mechanical and electrical energy is produced by energy using gravity power generation at high altitude and seashore and open spaces. So there is a need for better aerodynamic design to capture maximum possible energy from system.

II. PRINCIPLE

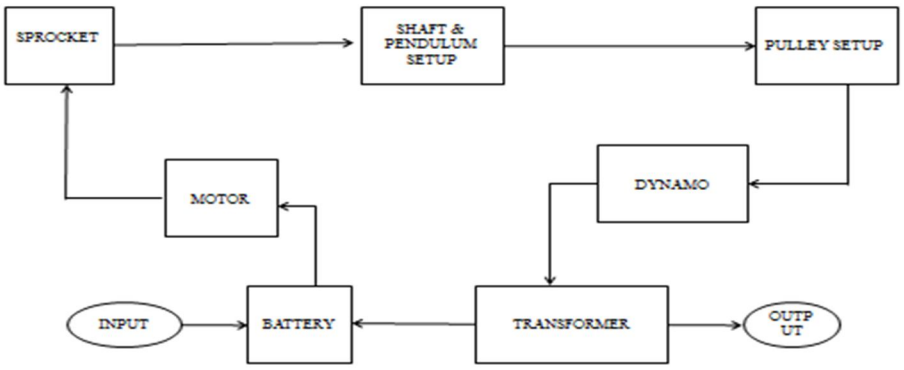
In this machine based on the principle of, when an object is placed on a higher level than due to the gravitational force it experiences a pull towards the lower level and gains kinetic energy. This kinetic energy can be transformed into electrical energy.

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III. METHODOLOGY

There are different experimental methodologies to generate power from gravitational force. In this paper we are basically explaining about Perpetual motion mechanism. This mechanism is used in gravity engine as explained below to electricity. The apparatus consists of pendulum, pulley and pin arrangement bearing variable loads and supporting stand. The arrangement of pulley in such a way that diameter of one side pulley is large and the opposite side small sprocket is fixed and these two parts are aligned in a horizontal plane of centre shaft. Variable loads are mounted on the centre shaft as shown in the figure and this shaft is mounted on two variable bearing of supporting stand by using nut and bolt. For the generation of electricity the Mini DC motor is used which is connected to the crank through sprocket and the pulley is attached to the dynamo. The dynamo is used to produce electricity.



A. Working

The arrangement consists of dead weight fixed on a shaft carrying variable loads and it is supported on a stand.Initially some amount of RPM is given to the pendulum setup to obtain rotary motion by means of a motor. When the power supply to the motor is "ON", the motor starts to rotate,the rotation of the motor is transferred to the pendulum shaft by means of Chain sprocket setup, due to usage of this setup the rotation is transferred without any loss because of free wheel mechanism, when the rotation from the motor stops the shaft will not stops rotation due to the free wheel used on the pendulum shaft, so the shaft will rotates then the shaft rotates the pendulum setup carrying dead weight,which will also rotates then after attaining certain RPM,the motor is SWITCHED "OFF" the dead weight will rotates freely without friction due to use of free wheel on main pendulum shaft, and because of gravitational force each dead weight attains kinetic energy to pull or push the another pendulum to move forward to carryout rotation, and after certain period of time the shaft will slow down because of friction produced over the shaft and bearing then the sensor will again sense the lower speed of RPM and engage the motor "ON", with the shaft. This process is repeated for continous rotation .And then rotation gained by the pendulum shaft is tranferred to the "Dynamo"or "Alternator". By means of connecting a belt between larger diameter pulley of the pendulum shaft the speed ratio is increased to the pulley which is connected with alternator. Hence the power is genearted continously at anywhere anytime .

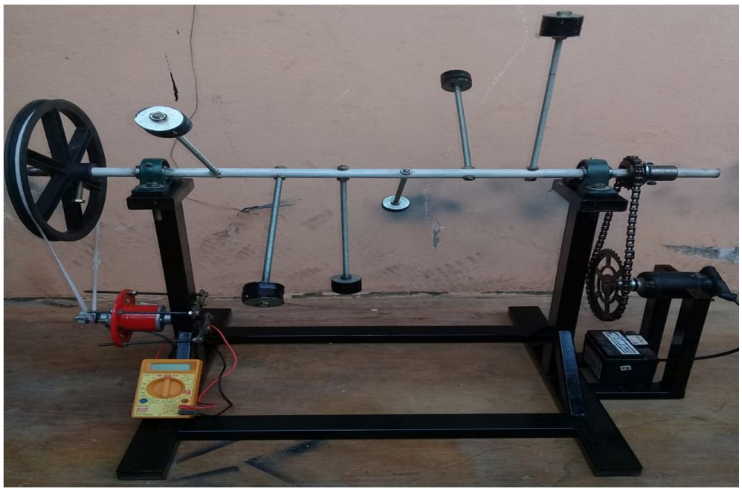


Fig .gravity powered electrical generator

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B. Advantage

1) Initial Cost very less.
2) Maintenance cost is very less.
3) Installation time is less.
4) No fuel consumption of the process.
5) Utilize at any place or any time on earth.
6) Small energy input to perform a long time energy conversion output.
7) Eco friendly and no pollution.
8) Gravity available for all time.

C. Disadvantage

1) Small design is complex
2) Small power is required.

D. Conflict Of Interest

The authors have no conflict of interest to report.

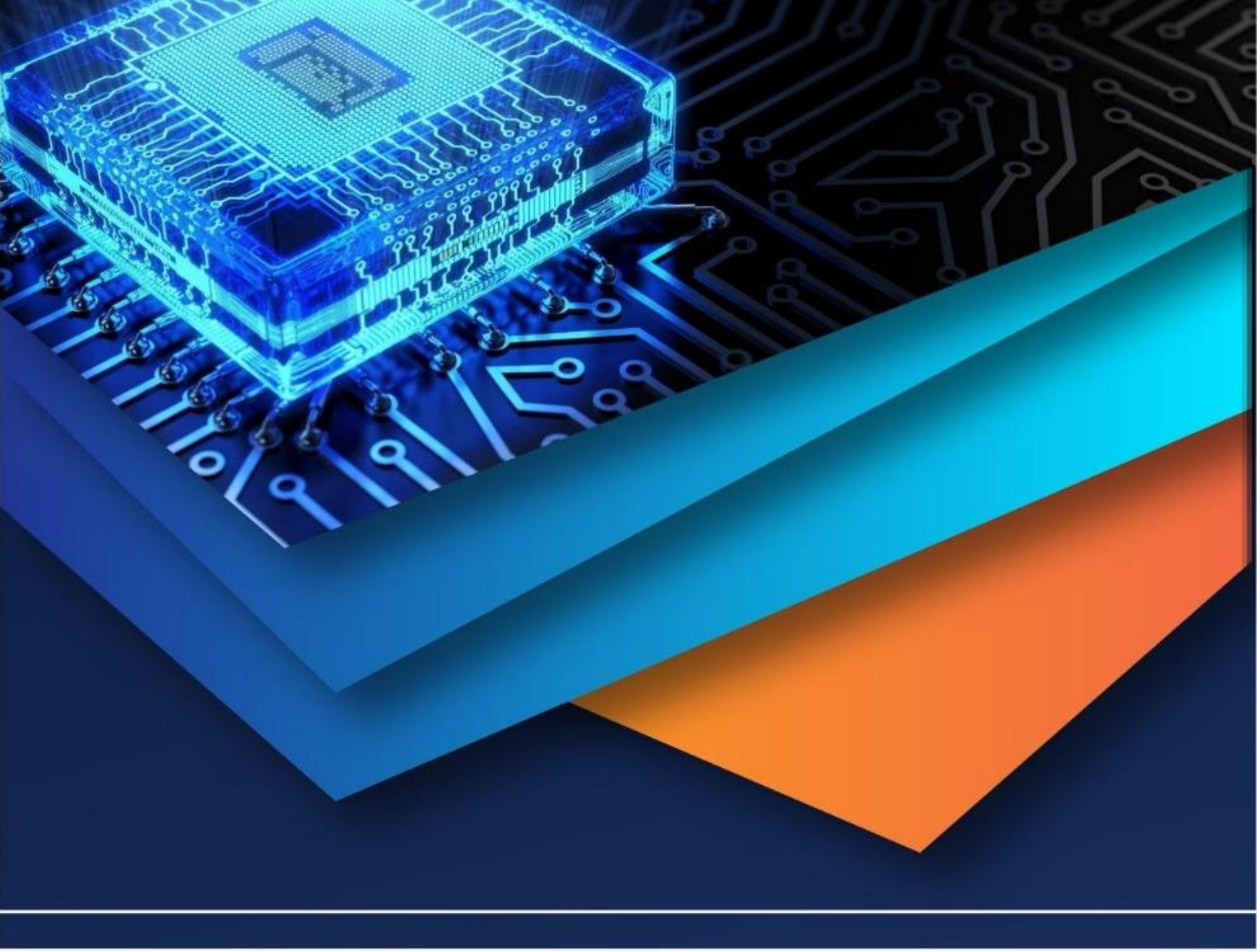
IV. CONCLUSION

Thus we conclude that our mechanical arrangement will implies as the best model to generate power using gravity, at minimum input voltage to maximum output voltage by giving input at particular intervals only. So we hope that this setup will developed in future with large scale to fulfill the future requirement of electricity

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