

# Utilisation of Perpetual Motion to Generate Electrical Energy and Controlling of AC Motor

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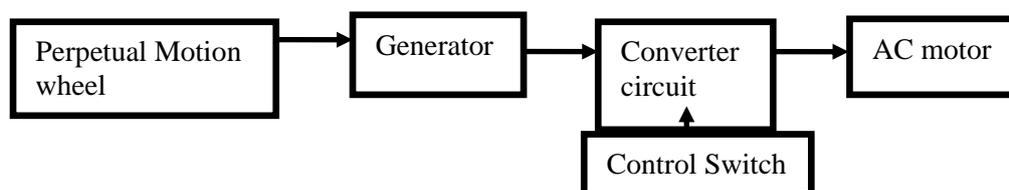
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**ABSTRACT:** Now a days every equipment required electricity for working so energy demand also increases. The Energy is generated by using renewable and non-renewable resources. Non renewable resources are widely used for generating electricity but they diminishing everyday. Renewable resources are also used but due to climatic condition generating rate will vary. Resources are decreases but the demand increases rapidly. To overcome this we develop a project to generate electricity by using perpetual motion by wheel and converting it to a electrical and giving the electrical energy to the motor and controlling the speed of the motor.

**KEY WORDS:** Perpetual motion, Magnetic wheel, AC motor, Control circuit

## I.INTRODUCTION

In modern world electricity play a very major role. Most of our country economic are spend on the electricity generation so we should use it properly.To generate energy in effective and reasonable cost in this project we use perpetual motion by wheel. The perpetual motion is converted into electrical energy and it is given to the AC motor the speed of the motor is controlled by using a controller circuit.



**Fig. 1.Block Diagram of generating electricity and controlling AC motor**

The perpetual motion are classified into three kind all of these violate the law of thermodynamic. the first kind work is done without any input energy deviate law of conservation of energy. The second kind which convert the thermal to mechanical work in this thermal energy is workdone in this it does not violate the law of thermodynamic but spontaneously cooling will occur without any transfer of heat to cooler reservoir it violate the second law of thermodynamic. In the third kind it eliminate dissipate forces and friction it follows both law of conservation of energy & second law of thermodynamic violate third law of thermodynamics. The magnetic wheel is used in this project the wheel will rotate based on the attraction and repulsion forces. Generator is used to convert the mechanical energy to useful electrical energy. The control is done by varying the pulse width. Pulse width modulation is more advantage over other methods in controlling the speed and direction of the motor.AC motor is mostly used all the domestic application eg: fans, air conditioner, water heater, garden equipment , ovens etc...

## II. SIGNIFICANCE OF THE SYSTEM

The paper mainly focuses on how to generate electricity at low cost and used in effective way and controlling of the motor. The study of literature survey is presented in section III, Methodology is explained in section IV, section V covers the experimental results of the study, and section VI discusses the future study and Conclusion.

## III. LITERATURE SURVEY

Shakunthala, Prof. Nagabhushan, R.Radha et.al International Journal of Innovative Research in Computer and Communication Engineering the basic knowledge about how perpetual motion is used to generate energy the drawback is controller and utilisation is not described.

D. Tsaousis et.al Journal of engineering science and technology review the basic principle of perpetual motion and the even though it violates the thermodynamic how it work efficiently are described and the basic criteria to make it efficient.

[Prathmesh A.Askar](#), [Gardiner Ee](#) et.al the controlling the speed of the motor by using a microcontroller is the speed is varied by changing the emf induced in the winding.

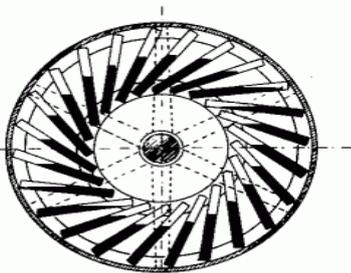
kazuya shirahata et.al oriented motor describes the variety of speed control techniques in AC motor and characteristics. The closed configuration associated with the speed control are also explained .

Osman Ishag Abdelrahim Abdalla, Dr. Eltahir Mohamed Hussein et.al International Journal for Research in Applied Science & Engineering Technology Volume 5 Issue IX, September 2017 water level detection is done by using 555 timer in that the working of 555 timer is studied by using this the controller circuit of the project is designed.

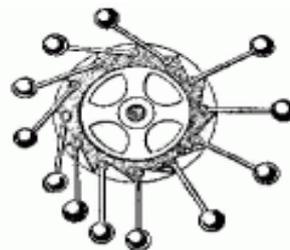
## IV. METHODOLOGY

### A) Perpetual Motion:

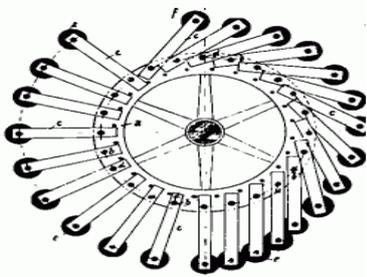
It is one kind of motion in which the body rotate continuously. This an hypothetical machine that can work indefinitely without an energy source. Consider an example in which the ice of the ocean melts by sunlight without any external sources likewise the wheel also rotate and generate energy. There are different kind of wheel available. They are:



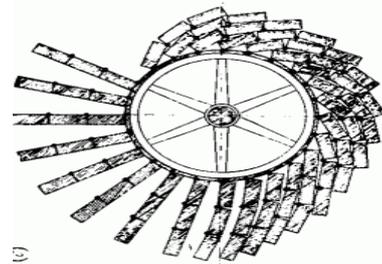
**Fig.2. Bhaskara wheel with mercury in tilted vial.**



**Fig.3. Overbalanced wheel with weights on articulated arms.**



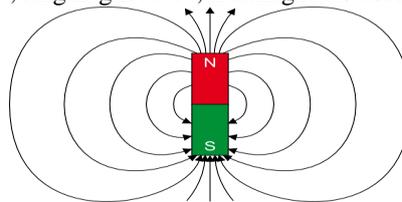
**Fig .4.Early articulated-mallet wheel.**



**Fig.5. Articulated arm wheel.**

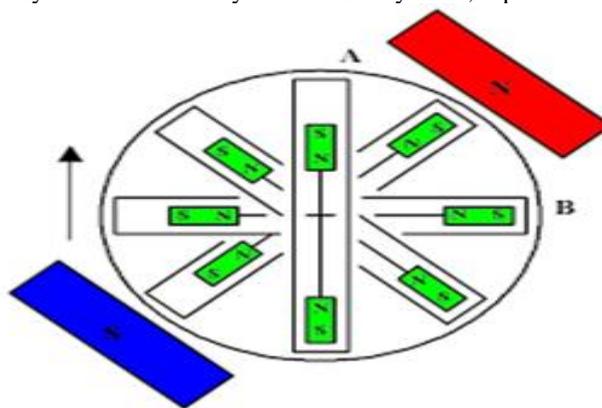
In Bhaskara wheel the torque in one side is greater than the otherside which any changes occur the wheel will start rotating. Mercury is field inside it causes the wheel to rotate continuously. In overbalanced wheel the weight is tied at the end of the string and due to gravity the string rotate continuously.

In this project we use magnetic wheel is used to create perpetual motion . There are different kinds of magnets ferromagnet, barmagnet, horseshoemagnet, ringmagnet etc..., Barmagnet is used to create the rotative motion.



**Fig .6.Bar magnet**

In the barmagnets there are two poles. The flux is created between north and south pole. The flux is utilised for the rotative motion of the wheel .Thebarmagnet are arranged in round manner and the north pole of the magnets are facing to the centre of the wheel. There are two external magnets. When the unlike pole meet repulsion take place likewise like pole meet attraction will occur.in the inner side all the south pole are facing outside so when south and external north pole meet attraction will happen. But when the south and south pole meet repulsion occur and the wheel rotate continuously. Bar magnet is mainly used because they are chemically-inert, liquid contamination is not possible.



**Fig.7.wheel for perpetual motion.**

**B)Generator:**

To convert the mechanical energy into electrical energy DC generator is used.DC generator has less parallel operation,simple design. The emf is induced whenever the conductor placed in magnetic field. The mechanical energy produced by the bar wheel is given to the field winding .the field winding will get excited and armature will rotate and electrical energywill be generated.

**C) Converter Circuit:**

The generated DC energy should be converted to AC before giving to the AC motor. To convert this inverter circuit is used.

**DC to AC Inverter with the 555**

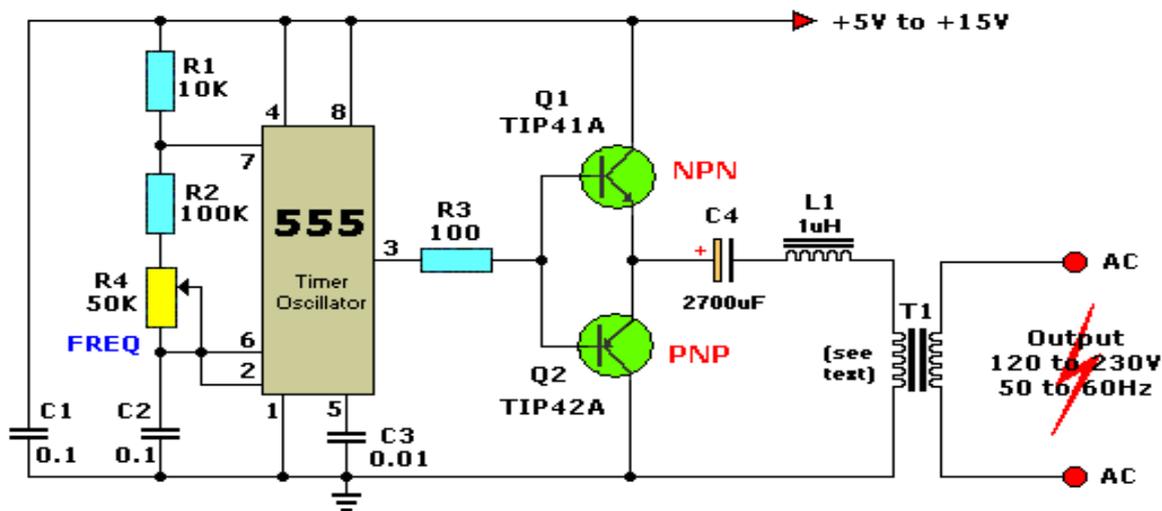


Fig.8.AC to DC conversion using 555

Timer oscillator will produce square wave everytime. The variable resistor is used to vary the frequency from 47 to 64hz. Third pin of the 555 timer is given to the current limiting circuit. When one transistor is high the next transistor in off state. The output of the transistor is given to primary side of the transformer. The capacitor and inductor are acts resonant circuit we provide output at accurate frequency.

**D) Control Switch**

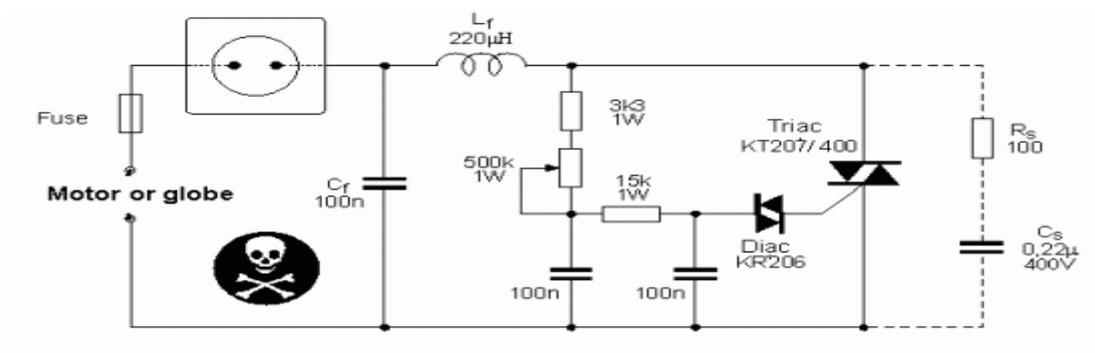
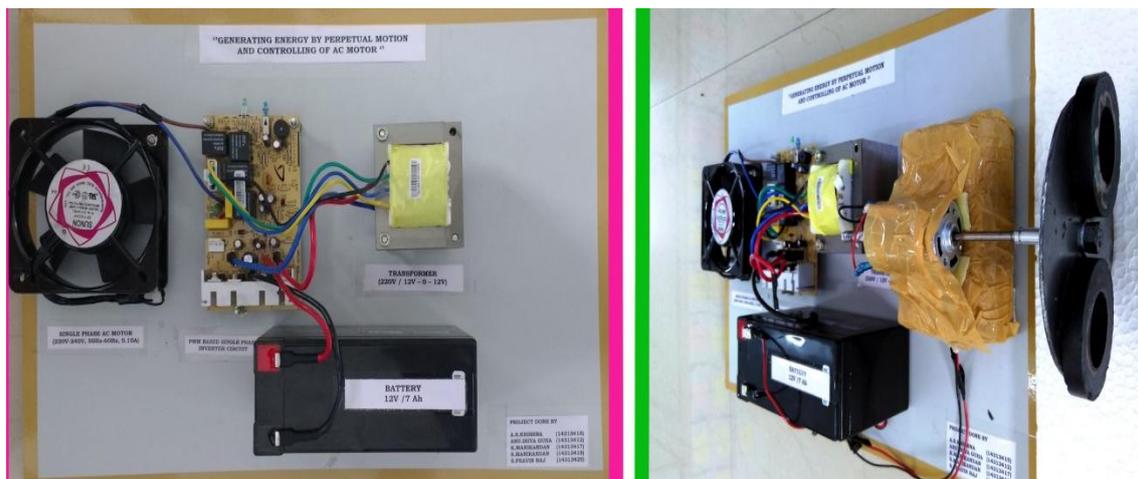


Fig.9.control circuit for AC motor

Consider an example in which drilling machine is working continuously but due to some reason we need to reduce the speed of the machine in such case the speed is reduced by the above control circuit. The capacitor will store the charges which the power requirement is low at the same time it will give power when required. The speed is control by varying the potentiometer.

**V. EXPERIMENTAL RESULTS**

The experimental set up of the project is given below at fig.10. The perpetual motion wheel of the motion is convert to electrical energy by using generator. From the generator it is given to both controller and inverter circuit. From the inverter it is connected to the ac motor.by control circuit the speed of the motor will vary according to the requirement.



**Fig.10.Experimental setup and output**

**VI. CONCLUSION AND FUTURE WORK**

In this project we generate Electrical energy in effective and controlling the speed of the motor. From this project the problem in generating electrical energy and economic problem also overcomes. The output option is given to small rated electrical equipment in domestic application. We also control the speed of the drilling machine at the output terminal.

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