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Development of Self-Energizing Fan

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Abstract - *A Bedini generator is an electrical generator that can recover energy from a running motor or machine's rotating parts. The aim of our project is we all need to put our innovative work into the production of electricity and efficient use of it. Essentially, this device's feature is built on a very basic design. It is also inexpensive in terms of construction most people think of the system as an electric motor because it runs on electricity and spins mechanically during operation. To be clear, the device is NOT an electric motor. With the exception of the importance and character of the voltage spike case, this project follows all other conventional electrical engineering and circuit design methods. So, as we scale the project up to the next stage, let's look at energy recovery approaches in this scenario.*

Key Words: **Free energy generator, Bedini Free generator, Electromagnetic Flux, Self- Energizing Fan, Energy conservation**

1. INTRODUCTION

We are all aware of the problem possessed by limited conventional energy sources which are depleting faster. To counter this we have come up with an idea called THE SELF ENERGIZING FAN which is an extension of a self-generating energizer invented by John Bedini.

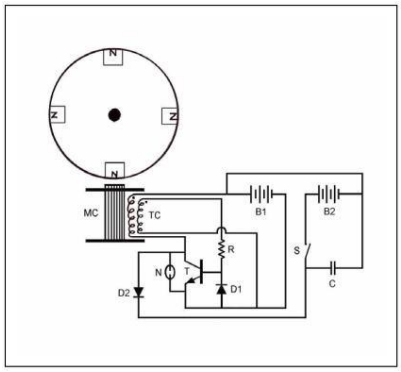

Fig-1: Block Diagram of Bedini Free Generator. [9]

Since the device operates on electricity and it mechanically spins during its operation, most people think of it as an "electric motor." Typically, electric motors are used to power another a revolving device, such as a compressor or a pump. As we will see shortly, this is not the primary function of the Bedini SG Energizer. It's true that it does spin and it does produce a small amount of mechanical energy. However, it does so in a specific way compared to most electric motors, and its ability to power other mechanical loads is severely limited. When an energized coil of wire is removed from its source of current, a small voltage spike occurs in the circuit. The device's true intention is to have a very precise effect on the battery that drives it, as well as to keep spinning.

2. LITERATURE REVIEW

Fahzal Shahrel Fakhrurrazey el at. [5] This paper compares the efficiency of two separate Bedini SSG's Free energy generator. John Bedini invented and demonstrated the Bedini SSG, a form of magnetic motor-generator based on zero-point technology. Shakunthala el at.[6] This paper states one of the methods of power generation which is independent of any atmospheric conditions unlike wind, solar, biomass, etc. unlike thermal and diesel generators, it does not need any fuels or raw materials. Prarit Rajput el at. [7] We referred to this paper to gain knowledge about the magnets used in the Bedini wheel concept. To gain a standard or base specifications or the potential output of the prototype we referred to M.N.Hidayat el at. [8] Chonlatee Photong el at. [4] The effects of four different coil sizes on the electric power generation of a traditional Bedini generator are presented in this paper.

3. MATERIAL

The Design includes the following key components:-

1. A 14-inch dia. Plastic rim. The magnets are connected along the circumference of the rim.
2. A tripod to hold the rim.
3. A cylindrical shaft. (O.D. 30mm, I.D. 26mm)
4. A magnetic core (81mm*81mm*81mm).
5. Two batteries (12v, 0.7 Ah).

4. CONCEPT

The Self-Energizing Fan (SEF) works on the principle of Electromagnetic Flux and Conservation of Energy. The Main Coil derives energy from the Battery (B1) and uses it to create a magnetic field (MC).

The magnetic field is used to generate mechanical movement on the wheel's magnet. As the shaft is attached to the rotating wheel, the shaft starts rotating as the wheel rotates, and further, the fan blades are mounted on the shaft, and at the output, we get the mechanical energy i.e. the fan blades start rotating. After this is finished, the energy in the magnetic field is discharged. The electricity produced by the

magnetic field discharge is then captured in the Capacitor (C). As the Main Coil (MC) discharges several times, the voltage in Capacitor (C) increases to the point that the excess energy can be transferred to Battery (B2) and recharged. The main aim of the project is to recharge the Battery (B2) efficiently.

In all the circuit diagrams, the Electron Current model is considered and assume that the electric current flow from Negative to Positive terminal in the circuit.

1.1 Attraction Mode Running

In this mode of running the wheel, the coil is wound in the 'Counter-Clockwise' direction. The circuit is the same as shown above and all the magnets on the wheel have the North Pole facing out. The process starts when one magnet gets closer to the coil than another. On the wheel, this creates an attraction force. As explained before, this approaching magnet induces a magnetic field in the coil core. But in this, with the coil wrapped in the Trigger Coil (TC) that turns the Transistor (T) ON immediately.

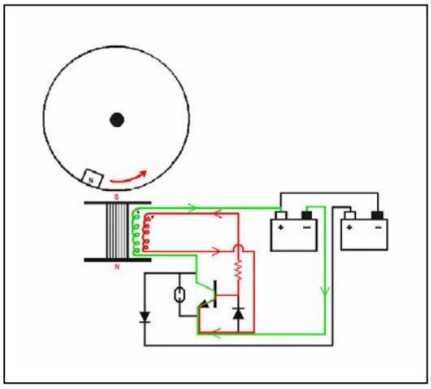

Fig-2: Attraction Mode. [9]

Now the current flows from battery (B1) to the main coil, it produces the South Pole at the top, and this re-enforces the induced field and makes the South Pole of the coil even stronger. This attracts the North Pole magnet on the wheel with a much stronger force, while also re-enforcing the current flow in the Trigger Winding, keeping the Transistor (T) ON.

As the magnet on the wheel continues to move away, the combined voltage produced in the Main Coil (MC) and the Trigger Coil (TC) drops below the level necessary to recover the energy to the second Battery (B2), at which point the last bit of discharge is dissipated in the Trigger Winding. The magnet then moves on to the next step, where the process starts all over again.

1.2 Repulsion Mode Running

This mode of running is the same as that of the Attraction Mode except the coil is wound in the 'Clockwise' direction. The circuit is the same as explained above and all the magnets on the wheel have the South Pole facing out.

5. CONCLUSIONS

1. In the Repulsion Mode, energy from the Battery is used to reverse the magnetic field in the Main Coil (MC). When the magnetic field fails, this amount of energy is lost permanently. This loss of energy does not occur in the Attraction Mode since the magnetic field never reverses.

2. In the Attraction Mode, the mechanical force applied to the wheel is the highest just before the Transistor (T) turns OFF. In the Repulsion Mode, the mechanical force applied to the wheel is the lowest just before the Transistor (T) turns OFF. Therefore, the Attraction Mode makes better use of the full current moving through the Main Coil (MC) to produce mechanical energy on the wheel.

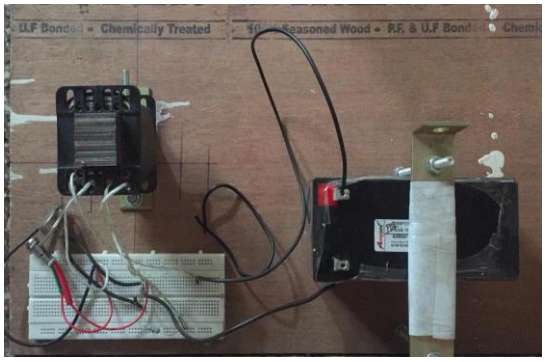

Fig-3: Prototype Photo.

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