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Power generation by using magnetic repulsion

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Abstract:

The aim of our project is to generate current easily by using magnets. Our project is working by the repulsion of magnet. Fixing the magnet in the blades of a fan in same poles. By fixing the same pole of a magnet above the magnet which is fixed in the fan blades, repulsion force is created and then fan is rotating, by using generator with the gear setup we get more generation of current. The main advantage of this product is no need of man power to run. To control the magnetic attraction in outer side of our product insulation material is used.

Keyword(s):Magnetic, repulsion, Gear, Fan blad

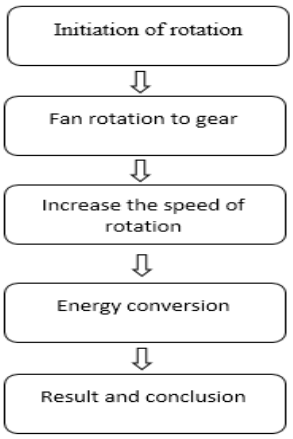
1. Introduction:

In this concept, we are using different size of magnets. With this for increasing the speed from the rotation speed of fan blade to the motor (generator) to run. If the fan blade rotation speed is increased by 100 rpm creates 10 watts of power. We use less torque motor (generator), because the fan rotation produces minimum torque. We use gear of 25 tooth and gear of 20 and then gear of 10 to increase the rpm. We use fan blade of three wings. In each wing, two magnets are placed of same size (diameter is same) in same poles. For repulsion two magnets is placed parallel to the magnets in the fan blades. The diameter of the magnet which is used in the fan blade is 8 cm and the diameter of the magnet used to repel the magnets in the fan blade is 12 cm. The inner diameter of the fan (shaft of fan) is 5 cm and the outer diameter of the fan is up to 12 cm. The main advantage of this

Project is to reduce the man power and it is non pollutant. To reduce the attraction of metals from the outer side of this component insulation is used.

2. Experimental setup:

The methodology used in this project is:

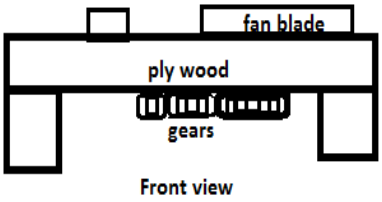


The above flow chart explains about this project.

2.1. Initiation of rotation:

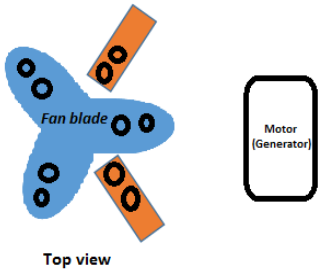
Initially a person initiates the magnetic repulsion afterwards the magnetic repulsion continues with the rotation of the fan. The magnet placed in the fan blades are repelled by the magnet which is placed parallel to that. The repulsive force is created because of the same poles facing together.

Front view of the project:



Front view

Top view of the project:



Top view

2.2. Fan Rotation to Gear:

The rotation of the fan by using repulsive force of a magnet is increased by the gear setup. The fan rotation is transferred to gear by the attachment of gear and fan.

Basically motor needs initial torque for that we want to increase the speed of the rotation for that we need to connect gear system to the shaft of the fan blade.

2.3. Increase the Speed of Rotation:

The speed of the rotation of a gear is increased by reducing the diameter and tooth of the other gears. The maximum tooth of the gear which is fixed in the shaft of the fan is 25. The minimum tooth of the gear which is fixed in the shaft of the motor is 12.

The increase of speed in this project increases the high generation of current. This is the main reason for high production of current.

2.4. Energy Conversion:

The energy conversion of this concept is conversion of mechanical energy into electrical energy (i.e. fan rotation to motor).

The main concept of our project is that production of current for that we convert the mechanical energy from the fan rotation to the electrical energy from the motor.

Due to the repulsion in the magnet it will rotates the fan blades. When blades are rotates then the power produced from the motor end.

The power produced from the motor can be used for multiple applications.

Power produced from the motor can be increases by using the mechanical element such as gear setup.

2.5. Result and Conclusion:

The main advantage of this project is to reduce the human power and this is non pollutant.

Finally current is generated by the repulsive force of the magnet from fan blade.

Analysis of speed and power:

Initial RPM vs Final RPM

s.no	Initial RPM	Final RPM	Output Power
1.	10	50	5.23 w
2.	20	65	6.8 w
3.	30	80	8.3 w

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