VERTICAL AXIS WIND TURBINE EFFICIENCY ENHANCEMENT WITH APPLICATION OF MAGNETIC PROPELLING CHARACTERISTICS

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Abstract: Uneven heating of the atmosphere by the sun, variations in the earth's surface will causes wind, the kinetic energy associated with the movement of atmospheric air is called as wind energy. The wind turbine is a system which transforms the kinetic energy available in the wind into mechanical energy. This paper mainly concentrates on “Permanent Magnet Propelled Vertical-axis Wind Turbine” system which operates with the additional feature like repulsion characteristics of permanent magnets, Natural property of attraction and repulsion of magnetic poles can be used energy banks. And this has the ability to operate in both high and low wind speed conditions. The force created as a result of this magnetic repulsion is also used while transforming the kinetic energy available in the wind into Mechanical energy. Our choice for this model is to showcase its efficiency as compared to the traditional vertical axis wind turbine.

Keywords — Wind Turbine, Permanent Magnet, Magnetic Repulsion, Efficiency.