

C025464 : MAJOR PHYSICS

KEY WORD : PRODUCTION OF ELECTRICITY/GYROMILL

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The research was carried out to evaluate the electrical production from the constructed Gyro-Mill wind turbine, whose 3 straight blades were of NACA 0012 type, chord length, blade length and radius were 67.5, 120, and 92 centimeters respectively. The mechanical power was transformed to electrical power through an automobile alternator via a speed step-up tricycle wheel. The averaged wind speeds of 6.3, 6.0, 5.2, 4.8, and 2.8 metre per second were used as a source of wind power.

It was found out that maximum 87.4 watt electrical power was obtained at the wind speed of 6.3 metre per second and the efficiency of the Gyro-Mill wind turbine was 33% and the efficiency of the production of electricity was 43% at this speed.