

Aero Dynamic Wind Mill with Reverse Charge Protection for Rural Power Generation

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Abstract: Energy is a major input for overall socio-economic development of any society. Wind energy is the fastest growing renewable energy. From centuries man has been trying to convert wind generation to mechanical & more recently, electric power. Wind technology has improved significantly over the past twenty years, and wind energy has become increasingly competitive with other power generation options. Wind generation has negligible fuel costs. A key challenge for wind energy is that electricity production depends on when winds blow instead of when consumers need power. the quantity of electricity generated from wind has been growing rapidly in recent years. the facility in the wind can be computed by using the concepts of kinetics. The wind mill works on the principle of converting K.E. of the wind to mechanical energy. the facility available in the wind increases rapidly with the speed hence wind energy conversion machines should be located preferable in areas where the winds are strong & persistent. Project is meant by using an aero dynamic wind blade arrangement which is connected to the shaft of the dc geared motor such that its output is given to the Reverse polarity preventer cum polarity corrector. Use of embedded technology makes this technique efficient and reliable. Micro controller (AT89S52) allows dynamic and faster control. liquid display (LCD) makes the system user-friendly to get the voltage. AT89S52 micro controller is that the heart of the circuit as it controls all the functions.

Keywords: Wind Mill, Liquid Crystal Display (LCD), Micro Controller (AT89S52), etc.

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