Department : **Mechanical**

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Group No: **8**

Guided By

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Project Title

POWER GENERATED BY MICRO WIND TURBINE

Abstract:

The use of wind energy for energy generation is one of the oldest methods which useful for renewable energy. Renewable energy sources such as wind energy, tidal energy, solar energy etc. is extremely can help in reducing the dependency on fossil fuels. With increased concern for environment now days led to the research for more environment friendly sources of energy and with this considerations wind energy can be considered as a viable option in this regard. Different configurations of wind turbines such as horizontal axis wind turbine and vertical axis wind turbines are major used for energy extraction. Horizontal axis mainly used in large scale applications and thus its implementation is generally a concern due to huge instalment setup and initial cost whereas vertical axis wind turbines offer promising solution for smaller ruler areas or medium sized residential spaces. Energy generation from wind turbines will surely be affected by geometry of bade it is using and its orientation in turbine. For effective use of turbine both parameters should be optimally set and determined. This review work focuses on various stages for design and development of optimized horizontal wind turbine which will studies various parameters such as general wind energy scenario, different available energy extraction methods, design and aerodynamic performance analysis of horizontal axis wind turbines. Project work will be included and Optimization of design parameters of horizontal axis turbine blades considering different parameters such as geometry in assembly.

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