

## DEVELOPMENT OF VERTICAL AXIS WIND TURBINE

In the past decade, there is growing awareness about the pollution due to various fossil fuels for producing electric power. The more electric energy consumption causes increasing of global warming. In order to reduce the pollution for generating the electric power, we have to switchover for utilizing renewable energy. In recent times, electricity from wind power gaining momentum due non polluted and available at cheaper rate. There are two types of wind mill available for power generation given as,

- ❖ Horizontal axis wind turbine, HAWT
- ❖ Vertical axis wind turbine, VAWT

Normally HAWT is used to produce the power at macro level, but in this project, we try to harness d power at micro potential efficiently by the implementation of the vertical axis wind turbine.

The aim of the project is to improve the efficacy low wind speed (less than 5 m/s) and to develop the correlation for determining the available wind power for mechanical energy conversion. This outcome of the project is expected to

- ❖ Minimize the pollution
- ❖ Popularizing the wind energy for domestic application
- ❖ The reduction of stress on fossil fuel will increase our nation sovereignty and socio-economic stability in the region.

Already there is few vertical axis wind turbine without much popularity. In this project, we are trying to overcome those existing disadvantages of vertical axis wind turbine and to produce the electric power at cheaper and pollution free at micro potential level. This vertical axis wind turbine can be installed easily at the top of the building because of its compact size and simplified design.



**VERTICAL AXIS WIND TURBINE DEVELOPED  
UNDER VMKVEC – IEDC PROJECT**

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