Working of Wind Turbine with Low Air Pressure

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The project is about a crazy robotic turbine which converts the energy of wind into rotational energy at very low pressure. Pakistan is a country facing unpredictable wind conditions and breezes are slow not enough to drive a horizontal-axis wind turbine (HAWT) much efficiently. So the only choice left to work on and modify a vertical-axis wind turbine (VAWT). We are representing a VAWT machine which is quite easy to handle and the most astonishing factor, which makes it different from other is that it produces electricity with low air pressure through effective, economical and efficient design. This is self starting modified type of Savonius and Darrius rotor VAWT. This machine is excellent for sites which have turbulent air or low pressure air. It is made of a semi-cylindrical PVC pipe. It is a 16 blade modified Savonius rotor design. The diameter of main rotor is 1 meter and height of blades is also 1 meter. After performing experiments on the prototype, it is rated to produce 80W approximately at average wind speed, i.e. 5-7m/s. We term it “crazy robotic” because of its efficiency as compared to the variants of VAWT.

Awards Won: