

## **Design of 1.5 kW Horizontal Axis Wind Turbine for Pakistan**

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This Paper presents the designing of 1.5 kW three bladed horizontal axis wind turbine. Design method is based on Blade Element Momentum Theory. Chord and Blade angle are optimized with this method. The length of blade is 850 mm and the profile used for the blade is NACA 4412. Designing of the whole turbine is done in CATIA V5 software. All the loads caused by wind and rotor were calculated for the design of tower.