RNS Institute of Technology

(VTU Affiliated, AICTE Approved, NAAC 'A' Grade Accredited)
Dr. Vishnuvardhan Road, Channasandra, RR Nagar Post, Bengaluru – 560098

Department of Electrical and Electronics Engineering

(NBA Accredited for the Academic Years 2018-19, 2019-20, 2020-21 and 2021-22)

Project: Bladeless Wind Power Generation

Title	Bladeless Wind Power Generation	
Student's name	1RN15EE026	Kaushal k
	1RN15EE044	S Venkatesh Prasad
	1RN16EE402	Karthik R
	1RN16EE403	Nagaraj
Guide	Mrs. Roopa Nayak	
Year	2018-19	

Bladeless Wind Power Generation uses a radically new approach to capturing wind energy. The device captures the energy of vorticity, an aerodynamic effect that has plagued structural engineers and architects for ages. As the wind bypasses a fixed structure, its flow changes and generates a cyclical pattern of vortices. Once these forces are strong enough, the fixed structure starts oscillating. Instead of avoiding these aerodynamic instabilities our design maximizes the resulting oscillation and captures that energy. Naturally, the design of such device is completely different from a traditional turbine. Instead of the usual tower, nacelle and blades, the device has a fixed mast, a power generator and a hollow, lightweight and semi-rigid fiberglass cylinder on top. This puts the technology at the very low range of capital intensity for such projects, it also makes it highly competitive not only against generations of alternative or renewable energy, but even compared to conventional technologies.

The country like India which having more rural population and condition suitable for wind generation through bladeless wind turbine is the best solution. It will help to increase percentage of renewable energy for electrical power generation and provides electrically as well as economically efficient power to the consumers.

Here it can be mounted to a roof and be very efficient and practical. A home owner would be able to extract free clean energy thus experiencing a reduction in their utility cost and also contribute to the "Green Energy" awareness that is increasingly gaining popularity.