

# Harnessing Wind Vibration, a Novel Approach towards Electric Energy Generation - Review

Shraddha S Magar<sup>1</sup>, Archana S Sugandhi<sup>1</sup>, Shweta H Pawar<sup>1</sup>, Suhas B Khadake<sup>1</sup>, H. M. Mallad<sup>1</sup>  
Department of Electrical Engineering<sup>1</sup>

SVERI's College of Engineering, Pandharpur, Maharashtra, India  
suhaskhadake@gmail.com

**Abstract:** *Vortex-Bladeless is a Spanish SME whose objective is to develop a new concept of wind turbine without blades called Vortex or vorticity wind turbine. This design represents a new paradigm in wind energy and aims to eliminate or reduce many of the existing problems in conventional generators. The bladeless vortex turbine is one such concept that uses the principle of aero-elasticity and thereby the variations produced by it to generate electricity. Project work will include the design and development of a vortex wind bladeless turbine and a gyro action based e-generator to be coupled to it to generate the electricity. Prototype development will be done using 3-D printing for the vortex turbine and the e-generator to make a scaled working model that will demonstrate electricity generation and testing will be done on the same to determine the effect of wind speed on , turbine speed , voltage , current and power generated by the model.*

**Keywords:** Vortex bladeless turbine, gyro torque, vortex shedding effect, wind turbine