# Vibration Signals of Small Vertical Axis Wind Turbines

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**Abstract :** In recent years, progress has been made in increasing the renewable energy share in the power sector particularly in the wind. The experimental study conducted in this paper aims to investigate the effects of number of blades and inflow wind speed on vibration signals of a vertical axis Savonius type wind turbine. The operation of the model of Savonius type wind turbine is conducted to compare two, three and four blades wind turbines to show vibration amplitudes related with wind speed. It is found that the increase of the number of blades leads to decrease of the vibration magnitude. Furthermore, inflow wind speed has reduced effect on the vibration level for higher number of blades.

**Keywords :** Savonius type wind turbine, number of blades, renewable energy, vibration signals
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