EFFECT OF NUMBER OF BLADES ON THE PERFORMANCE OF DRAG-BASED VERTICAL AXIS WIND TURBINES (VAWTs)

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"I declared that this thesis is the result of my own work except the ideas and summaries which I have clarified their sources. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any degree."

Signed: .....

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ABSTRACT

This project is on the development of small scale of Vertical Axis Wind Turbine (VAWT) for the used in small households. To objectives of this project are to design, fabricate, test and analyze the Giromill or H-Darrieus type wind turbine. The wind turbine is positioned on a base made by mild steel. The turbine is attached with different number of blade. The blade model uses a catalog of NACA four digit airfoils which is NACA 0020 and fabricated by using aluminum. Experiment analysis performed in order of comparing the power generated between the two, three and six blades.

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