## ABSTRACT

**MATHEMATICAL MODEL OF VERTICAL WINDMILL RATE TYPE SAVONIUS THREE WINGS**

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Mathematical model is a simple way to interpret a problem into mathematic language by using equality, inequality or function. Mathematical model is used to predict the quantity of turbine cyrcle. Which is to determined of wind fluctuation rate (wind velocity). The Quantity of turbine syrcle is influence the large of capacity that produced by wind velocity. After the sum of turbine cyrcle and the large of capacity are know, then the mathematical model will be shown as a linier function. From this linier function, relation between turbine cyrcle and wind velocity is known that, if the wind velocity is increase and the design of wind turbine is large enough, so the production of the capacity at the turbine will be higher then usual.



Keyword : mathematics model, wind fluctuation rate, vertical windmill type savonius