

*Determining The Angle Of Attack On A Windmill Blade Airfoil Type AG19 To Get The Maximum Lifting Force*

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***Abstract***

*One of the interesting subject on wind turbine development is determining the angle of attack to get the best position of wind turbine blades to maximize wind's lift force on blade's airfoil. Testing method using simulation and actual testing method. Simulation test determined by using Solidwork engineering software. Actual testing determined by using wind tunnel. The object of research is blades which have AG19 airfoil type. The dimension of blade sample that use on this research are 20 cm span width, 10 cm chord line, 0.5 cm maximum thickness on 4 m/s, 6 m/s and 8 m/s wind flow speed (according to Indonesia's wind flow speed averages). Furthermore, the result of both testing method are analyzed by compare each data. The best angle of attack determined from this research is 14° and stall started on 15°.*

***Keywords :*** *wind energy, angle of attack, airfoil AG19,*