

Validation Of Wind Turbine Rotor Blade Design Optimization Through The Utilization Of 3D-Printing Technology

Prepared by: Philippe Malacca Pomes, Wong Siong Yit, Tan Wee Hong and Tan Yi Wei

ABSTRACT

Renewable energy is one of very important topics in the world. From the literature review, it can be seen that there is an opportunity to increase the wind turbine efficiency through the wind turbine blade. The efficiency of wind turbine blade which is designed in this project is 32.9% and the length of wind turbine blade which is preferred is 1.5 m due to its power output and efficiency. The result from the calculation will also be verified by using ANSYS and experiment. The wind turbine blade will also be printed out in 15cm by using 3D printer.