



**DEVELOPMENT OF A NACELLE AND GENERATOR FOR SMALL
HORIZONTAL AXIS WIND TURBINE (HAWTs)**

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ABSTRACT

This project is on the development of a nacelle and generator for small horizontal axis wind turbine (HAWTs). The main objectives of this project are to design, fabricate, test and analyze the small scale of nacelle and the generator. The nacelle has been designed using CATIA CAD software and fabricated by using aluminium. Experiment analysis has been performed in order to find out the drag coefficient acting on the nacelle. Based on the experiment, it is found that the nacelle of horizontal axis wind turbine has some effect on the performance of the wind turbine. The generator is fabricated so that it can produce electricity when it is powered by the rotating shaft of the horizontal axis wind turbine. The generator performance is tested with the rotating wind turbine shaft.

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