

CERTIFICATION OF APPROVAL

Design of Pico hydro turbine for remote areas

by

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CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.

AMIRAH BINTI RASHID

ABSTRACT

The objective of this project is to design a pico hydro turbine that can produce sufficient energy for small communities in remote area. Pico hydropower which is hydropower on a small scale is one of the most effective technologies to be implemented in remote areas. Since many remote areas are located near moving sources of water, pico hydropower is the viable and possible energy that can be implemented. This project aims to design a pico hydro turbine which can produce electricity for household consumption in small and isolated communities. The final design will encompass the mechanical components of the hydro turbine. This study could help remote communities to have access to alternative energy supplies. The scope of the study is to conduct study on current applications of hydropower as well as to review current design of pico hydro turbine. Methodology involved in the study includes preliminary design, detail design and simulating the hydro turbine using computer software CATIA and ANSYS. Lastly it can be concluded that the design of pico hydro turbine has been completed.

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