



**CONDUIT FOR FREE FLOW RIVER WATER TURBINE TO GENERATE
1kW POWER FOR REMOTE AREA**

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“I declared that this thesis is the result of my own work except the ideas and summaries which I have clarified their sources. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any degree.”

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In prosperity the friends knows us.....

In adversity we know the friends...

ABSTRACT

The project of “Conduit for Free Flow River Water Turbine to Generate 1kW Power for Remote Area” has been carried out by the final year students of Bachelor of Engineering (Hons) Mechanical under supervision of Associate Professor Dr. Hj Rahim Atan. The project aimed to generate 1kW of power. The development consist of three main stages, namely design, fabrication and evaluation process. This project involved multidisciplinary application such as mechanical, electrical and computer knowledge. This project consists of two major sections, platform and water path or conduit area. All these section are bonded together as one body. The platform is use for mounting the turbine on it and the conduit area is use for increase the water velocity for turbine’s blades. In this project, the researcher has to fabricate and evaluate the performance of the turbine. Therefore, the design of the conduit area is very important in order to make sure it can supply enough velocity of water so that the turbine can rotate at the maximum speed. The platform should be able to float on water went the turbine and water path are mount on it. Otherwise, the whole body will immerse in river. The design of platform and water path is starts from 3-D design using computer aided design application. After the 3-D conceptual design has competed, the fabrication stage started. The fabrication process involved the various manufacturing process such as welding, drilling, cutting and machining. After all the parts have been completed fabricated, it will assemble together as one body. Lastly, the project will be run at the Ulu Keniam River in Taman Negara Pahang. The performance and result will be taken for further improvement.

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