UNIVERSITI TEKNOLOGI MARA

DEVELOPEMENT OF MICRO HYDRO TURBINE POWER GENERATOR

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DIPLOMA

Jul 2023

ABSTRACT

The nonrenewable energy that is widely used in the world currently, showing that it could cause a detrimental impact on the environment. Thus, there is a critical demand for renewable energy sources that only use natural materials. The lack of renewable energy in our world is because of the high installation cost, the lack of knowledge and inconsistent resources. This product aims to design Micro Hydro Turbine Power Generator using State-Of-Art SolidWorks and to make people use renewable energy more often. This product will be using machining processes like Welding, Cutting, Grinding and Drilling. The prototype can generated power around 2.47W. Thus, it can help in supplying energies whenever possible.

ACKNOWLEDGEMENT

I would like to express my heartfelt gratitude to all those who contributed to the successful completion of this project. First and foremost, I extend my deepest appreciation to my supervisor, TS. Ainaa Maya Munira Binti Ismail, for their unwavering guidance, support, and expertise throughout this endeavor. Their valuable insights and encouragement have been instrumental in shaping the project's direction and ensuring its quality.

I am also immensely thankful to my family and friends for their understanding, patience, and constant encouragement, which provided me with the emotional strength to persevere through the challenges and demands of this undertaking.

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INTRODUCTION

1.1 Background of Study

Recent day, where the energy source used in the world right now are ruled by the fossil fuel, coal, oil, and gas because of its high energy density, inexpensive and easily accessible in many regions make it a reliable source to provide energy throughout the world.

Even so, this energy will run out one day because of the limited number of sources to extract the energy from in this world. Not to mention, they are also one of the leading contributors to pollution and climate change because when they are burned for energy production, they release a significant amount of carbon dioxide into the atmosphere.

So, an alternative way of providing energy that won't resulting into pollution and Climate change while still being renewable are most welcomed. Introducing Renewable Energy is also known as clean energy or green energy. This energy source can be replenished while being nature friendly and is not harmful to the environment, hence the name. Even though these sound like a better alternative than non-renewable energy, it is still not as widely used because of the cost, limitations of place and overall low demand from the public.

The aim of this project is to design a micro hydro and solar photovoltaic to supply renewable energy that is inexpensive so that it is accessible by a lot of people regarding their background. The system will also be simple to operate and space efficient to make sure it can be used in a lot of different areas.