FACULTY OF ELECTRICAL ENGINEERING UNIVERSITI TEKNOLOGI MARA TERENGGANU

FINAL REPORT OF DIPLOMA PROJECT

SOLAR POWERED WATER PUMP SYSTEM FOR AGRICULTURE

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I declare that this report entitled SOLAR POWERED WATER PUMP SYSTEM FOR AGRICULTURE is the result of my own group research except as cited in the references. The report has not been accepted for any degree and is not concurrently submitted in candidature of any other degree."

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Alhamdulillah and a lot of thanks to ALLAH for giving us the strength physically and mentally to strive and face every problem that occur during the time we are trying to complete the project. We would like to give our honor to our supervisor, Mohd Saiful Najib bin Ismail @ Marzuki for sacrificing a lot of his time and energy in order to help us completing this project. Furthermore, our supervisor also helps us in giving valuable ideas about our designing project and teaches us a lot about this proposal. Mohd Saiful Najib bin Ismail @ Marzuki also supports us to finish the task before the dateline and complete the project successfully.

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ABSTRACT

This project named "Solar water pumping system for agriculture", is a new system developed that would be more environment-user. It is designed with purpose to irrigate the crop or for animal used. Solar water pumping system for agriculture come with some innovation consists of two circuit. On this project, Photovoltaic panel is used to obtain the sun light to charge the battery. The energy obtained from photovoltaic panel is stored in the 12Volts battery which can be used if there is no sun condition such as in night or in cloudy weather. The dc motor run and the water transfer begin to transfer water from the wells/pond to the water storage tank in the top of the hill. As the water transfer begin, the water storage tank will full by water. So, there is a water level indicator placed in the water storage tank to detect the water level either in full condition or not. When the water level sensor detect the existence of water in the sensor which means the full conditions, the dc motor will stop functioning and the water transfer activity stopped immediately.

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