### HYDROELECTRIC SPRINKLER

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A project report submitted in partial fulfillment of the requirements for the award of the degree of Diploma of Electrical Engineering (Electronics / Telecommunications / Instrumentations / Computer)

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APRIL 2015

"I declare that this report entitled "*your title*" 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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#### ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious and the Most Merciful.

Alhamdulillah, all praises to ALLAH for the strengths and His blessing in completing this project. Special appreciation goes to our supervisor, Madam Nik Nur Shaadah binti Nik Dzulkefli for her supervision and constant support. Next, our appreciation goes to Madam Siti Aishah binti Che Kar and Madam Nazuha binti Fadzal as the EEE368's coordinator for giving us a lot of chance to complete this project. Although there were many obstacles that we need to face, we manage to successfully complete this project.

Besides, we also want to thanks to all lecturer and staff from faculty of Electrical Engineering for their cooperation, encouragement and advice during the preparation of completing this project. They also help us by sharing their idea and knowledge to solve our problem regarding our project.

Next, our special thanks to our parents for giving us the moral support to keep trying during the whole process making this project and special thanks to our friends who willing to help us. With the help of these people, we manage to complete our project. By involving ourselves in this project, we understand the value of teamwork, toleration and patient between group members. Last but not least, we would like to wish thank you for those people that involved in completing this project. Without all your helps and support, we would be stuck and unable to complete this project.

#### ABSTRACT

The main purpose of this Hydroelectric Sprinkler project is to use a renewable energy and apply it to water sprinkler devices. The renewable energy that used in this project is hydroelectric. Hydroelectric is a kind of renewable energy that created by flowing water which rotates the fan or turbine thus producing kinetic energy and electricity. The fan or turbine operated on a simple principle which is when there is water flowing, the water flow will push the fan or turbine and make it rotate. In order to produce the electricity energy, the generator is connected to two series connected DC motor to produce voltage, and then the produce voltages are used to charge a battery. A gear motor is connected to the control circuit as a main output in this project. The charged battery is used as the supply for the control circuit. Then sprinkler is used as an output device. The water sprinkler is ON when the light intensity from the sun is radiated to the sensor and OFF when there are no light.

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