**FACULTY OF ELECTRICAL ENGINERING**

**UNIVERSITI TEKNOLOGI MARA**

**PULAU PINANG**

# FINAL REPORT :

# WINDMILL AUTOMATIC ROOF WATER SPRINKLER

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**This report is submitted to the Faculty of Electrical Engineering,**

**Universiti Teknologi Mara (UiTM).**

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**This report is approved by :**

**Supervisor's name**

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# ABSTRACT

Since the immemorial, the main source of the energy has been coal, oil, natural gas, nuclear energy and wood. However, all these source are limited and are the main cause of pollution and this has led to development and more focus on sustainable energy supply with minimum pollution effects. Hence research and analysis has shown that wind energy, solar energy and biomass are the most prominent solutions to the above problems because they are eco-friendly and readily available in nature.

Wind energy can be generated using windmills that provide mechanical energy that is used directly on machinery such as water pump and grinder or wind turbines that provide electrical energy. The main objective of this project is to analyse and design wind hybrid system for roof water pimping. The compilation of this project report involved a variety of information research being gathered and geared towards achieving the objective.

The study involved analysis of the wind as renewable sources of energy and its application for roof water pumping. The windmill system is environment friendly and its source of energy, although fluctuating, is freely available and non-depletable.

# ACKNOWLEDGEMENT

In the name of Allah, the most compassionate and the most merciful, we would like to take the opportunity to thank Allah the almighty who have and always been helping us along the way until now that we have been able to go through all kinds of challenges and guiding us onto the correct path. Next, we also want to give deepest appreciation and gratefulness to our parents who have and always been praying for us, supporting us and love us in making us who we are now.

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