FACULTY OF ELECTRICAL ENGINEERING

UNIVERSITI TEKNOLOGI MARA

PULAU PINANG

FINAL REPORT:

DEVELOPMENT OF AN AUTOMATIC WATER PUMPING SYSTEM FOR AGICULTURE LAND PURPOSE

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This report is approved by:

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ABSTRACT

Development of an automatic water pumping system for agriculture land purpose is the title of this project. This project used to alert the farmer on the field that the soil is dry or wet. Plant needs constant supply of water for it to grow healthy, using this method that determine the condition of the soil is the best way in farming plant. Moisture sensor is used for detection of soil condition. The main controlling device is IC LM 324 and IC NE 555. The signal from moisture sensor is send to main controlling device for processing. The output from main controlling device is used to turn ON or OFF the water pump. The farmer can know if the soil is dry, the LED indicator will light up same goes to water pump also turn ON. This system keep rotating and the farmer can manage his farm more accurately. The water pump receive water from water tank. This project also cover the water level in the water tank. The sensor is dipped inside the tank and the output sensor is send to another main controlling device which is IC 74148, IC 7404 and IC 7447. In the main controlling device process of encoder, decoder and inverting is take part. The output signal from the main controlling is send to the 7-segment for display. By using this method the farmer manage to monitor his water supply by knowing which level 1 until 7.

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