DESIGNING, CONSTRUCTING, MONITORING AND ANALYZING OF FLOOD GATE SYSTEM-MODEL

By

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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Chairman of the Examination Steering Committee Date

ABSTRACT

DESIGNING, CONSTRUCTING, MONITORING AND ANALYZING OF FLOOD GATE SYSTEM-MODEL

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The purpose of this thesis is to monitor and control the water flow in the river to prevent from overflow that can caused flooding around the river. In this case, the thesis will modelled the real system of a river and flood gate in Jakarta. This model will simulate how the water flows from Katulampa dam, Bogor and then continue to Manggarai until the water flow through the sea. There will be gates at the sea to prevent the high tides from the sea. In this model also the system of flood gate will be controlled and monitored, the water level will be measured by level sensor. The sensors then will send the data to the microcontroller to be processed. All of the information from the sensors and the condition of gates will be sent and displayed through a user friendly HMI (Human Machine Interface). In this HMI, the operator will be able to control and monitor the water level in the river. Although the system is automatic, the operator can also control the operation of flood gate manually through the HMI.

Keywords: Flood Gate, HMI, Level Sensor.

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DEDICATION

I dedicate this thesis to God, my mother, my sister, my advisor, my co-advisor and my friends.

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