WATER LEVEL IN TANK USING LEVEL SENSOR AND PID CONTROLLER

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DEDICATION

To my beloved parents,

Dato' Haji Abdullah Bin Ahmad and my mother, Hjh Nik Noorul Aini Binti Nik Mohd Salleh for their full support, love, patience, and encouragement during my degree study.

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ABSTRACT

Water level in tank control using level sensor and PID controller system is an implementation of PID controller application into designing an intelligent and automatic level control of water/liquids/solids. While people especially in engineering fields have difficulties to measure and control the desired level in smooth transitions, this system provides the features which allow people to control and maintain water level in tanks as accurately and as steady with smooth transition process. This system is able to continuously maintain and doing necessary processes non stop day and night. The design will be implemented into a model built for a FKEE process laboratory in UMP (University Malaysia Pahang).

ABSTRAK

Sistem Kawalan paras air dalam tangki menggunakan pengesan paras dan pengawal PID adalah penggunaan pengawal PID di dalam sebuah kawalan paras air/cecair/pepejal secara automatic dan pintar. Sementara manusia khasnya di dalam bidang kejuruteraan menghadapi kesukaran untuk mengawal dan mengukur paras yang dikehendaki secara perubahan yang lancer, system ini mampu memberikan manusia kuasa untuk mengawal dan menjaga paras air dalam tangki secara tepatnya dan stabil. Sistem ini mampu berfungsi berulang-ulang tanpa henti siang dan malam. Rekabentuk ini akan dilaksanakan ke satu model yang dibina makmal FKEE di dalam UMP (Universiti Malaysia Pahang).

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P	Proportional
I	Integration
D	Derivative
FKEE	Fakulti Kejuruteraan Elektrik & Elektronik
Kp	Proportional constant
Ki	Integral constant
Kd	Derivative constant
STC_ON	Self tuning on
Pu	Interval time
PBu	Proportional band value