CONTROLLING WORKING PRESSURE OF PRESSURE RELIEF VALVE BASED ON ARDUINO UNO

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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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ABSTRACT

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This thesis purpose to control woking pressure of pressure relief valve which works as a safety excess pressure by using the principles of electric, is being studied system uses electrically working principle. This system will work if presure relief valve failure indicated working pressure exceeds the initial setup. The indications of this tool uses the pressure sensor will read the excess pressure of the system as a primary input to be processed on aduino. After arduino process input from the pressure sensor, the output will activate alrm arduino and the indicator light which indicates that the pressure in the hydraulic meisn'm in trouble, plainly solenoid valve will open in order to dispose of the excess pressure was to the extent of minimum 20 Bar and keeping it constant. Alarm and indicator light will remain until the operator shut off the system. In this system, there are two options that the operator can do when you turn off the system is to activate the emergency button on the hydraulic machine or operator can turn it off by using the android devices that are connected using Bluetooth. This tool uses a control Ardunino Uno, hydraulic pressure sensor, and for connection android device using bluetooth IC 05-HC.

Keywords: Safety Valve, Selenoid Valve , Microcontroller , arduino.

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DEDICATION

Thank you Allah SWT for all blessing during my thesis process.

I dedicate this works for My lovely Parents and my workplace ATMI Cikarang.

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