ABSTRACT

***DESIGN USER INTERFACE VIA LAN FOR DC MOTOR SPEED
CONTROL SYSTEM DEVICE***

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Visual basic.net visual basic which is engineered for use on the back platform .net so that applications created using visual basic .net can run on any computer system, and can retrieve data from the server with any type as long as the .net framework installed. Therefore surveyors laid out user interface in visual basic .net to control two dc motor speed control system using PID controllers and fuzzy kontroller.

The goal in designing this is how to design the user interface to control two dc motor speed system on personal computer (pc), so the user can transmit via PC setpoint, proportional control (kp), control integrative (ki), control the derivatives (kd). With the user interface also helps the user to see how the graph response of PID controllers and fuzzy controller with a set point that is sent via pc user to the system.

PID control and Fuzzy each embedded system on an arduino. The user will send setpoint, kp, ki, kd via PC, the server arduino (arduino mega ethetnet and shield) will hold the data send to users. Data is delivered via a TCP/IP socket using the arduino ethernet shield. From the arduino server data will be sent to the arduino PID and sent to fuzzy. After the data is sent to the arduino PID and fuzzy then results from data obtained at each arduino arduino is accepted by mega to be sent to the PC.

Keywords: Visual basic .net, arduino, socket TCP/IP