FINAL YEAR PROJECT REPORT

PRECISE POSITION AND SPEED CONTROL OF DC SERVO MOTOR FOR VARIABLE LOAD

In fulfillment of the requirement
For degree of
BE (Electrical)

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ABSTRACT

This report is about our final year project the precise position and speed control of Dc Servo motor for variable load and the desired position. It contains all the details about the project and from how we decided to do this particular project all the way up to how we achieved it.

The project is primarily about the object controlling and precise position system for controlling this system we are using microcontroller technology (AVR atmega16) that is interfaced with other useful devices or sensors that are we using in our project like load cell and IR sensor and encoder and lcd and keypad and object counter and dc gear motor and conveyor belt.

We are using keypad because precise position of object will define at different positions by user keypad will initialize the overall process by press star button. Lcd will display the object of information that is controlling by devices and here we are using sensors load cell and IR sensor and encoder and load cell used for measuring object load in the form of electrical signal voltages and current.IR sensor used for finding the presence and absence of object conveyor belt is performing the task of moving object in forward side.

Our load cell and IR sensor and DC gear motor and encoder is coupled with conveyor belt system. dc gear motor is controlling and moving the conveyor system.

The overall process is that when our object will placed on the conveyor belt then IR sensor will be active and find out that the object is present or not. And after that object will move forward through load cell and measure load in the form of voltages and current and then object will place at different position that will be decided by user and after that project will come down from conveyor belt from passing object counter that is counting the no of objects that are coming through conveyor belt and C-language software is using for controlling the tasks through microcontroller AVR atmega16 and other devices.

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