

A SOFTWARE BASED ELECTRIC ACTUATOR CONTROL SYSTEM WITH ROBOTIC ARM - A LEARNING AID FOR UNDERGRADUATE STUDENTS

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ABSTRACT

The main objective of this work is to develop a hardware and software based learning tool to control any electric actuator such as stepper and servo motor. Later on, a control scheme is discussed for an industrial robotic arm by using these motors with the software system which can be used by the undergraduate students to learn about electro-mechanical system. The software is used to control actuators and the robotic arm through computer by using serial communication protocol. The robotic can be used to pick objects with acceptable perfection.

KEYWORDS: Mechatronics Systems, Robotic Arm control, Stepper & Servo Motor Control, Serial Communication