CERTIFICATE

The Project title “Microcontroller Based Robotic Arm Control”

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ABSTRACT

In our contemporary world of science & technology, most of us are going for automation. Robotics covers a large area in the automated world and robotic arm has become popular in the world of robotics. Robotic arm can do such operations which are difficult & dangerous for human (e.g. removing mines, mining operations and so on). Even robotic arm is doing critical surgery of brain. In our project of robotic arm, our main intention was to control it by the microcontroller. By doing this we miniaturized the control section of the robotic arm. And it has to mention that we built our robotic arm by using the rejected and waste materials of our daily life which can pollute our environment. As a result, we reduced the production cost of the robotic arm and minimized the pollution of environment. Our robotic arm is three dimensional which can grab, carry and release small objects from one place to another. The essential part of the robotic arm is a programmable microcontroller which is capable of driving basically three stepper motors design to form an anthropomorphic structure. In the project we interfaced the robotic arm stepper motors with the programmed 8051-based microcontroller (AT89S52) which is used to control the robot operations. We have tested our robotic hand using both the C and assembly language program.

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