ABSTRACT

Persons with disabilities especially in the arms can be helped by making a robotic arm or bionic arm. The robotic arm is designed for people with disabilities, especially those who have no arms due to injury or amputation.

In this final project, the robot arm control is designed with three degrees of freedom (DOF). One control technique is to use fuzzy logic methods. Fuzzy logic method control design in this final project uses Graphical User Interface (GUI) as input while the output is the movement of the robot arm that has been installed by the servo motor.

The results of this Final Project success in the arm with setpoint 15 and setpoint 30 is 75.53% and 78.83%, the success rate in rotation with setpoint 60 and setpoint 100 is 88.81% and 91.66%, the success rate on grip with setpoint 30 and setpoint 60 is 78.48% and 88.09%.

Keywords : *DOF*, *fuzzy logic, arm robot, GUI*