

## ABSTRACT

Robot arm has been widely applied in industry which mainly used to improve productivity. Embedded ethernet has become an advantage in overcoming the problem of distance in the embedded system. Meanwhile, the website has been widely used by many people to find various information. Based on the benefits offered by each of the above products, the authors want to made interfacing between the three components above.

In has been created in this Final Project a website that can provide the facility to move the robot arm. Website has two access rights, the right of public access and the right of user, which the right of user have permissions to be able move the robot arm. Then the right of public access contains the main page, login page, and contact person page. The main page of the website contains a system overview that will be made in this Final Project. The login page contains a facility to go to a page to the user's access rights. To be able to access the user's permissions, the user must enter a username and password which have been provided in the main page. If the user has entered into a user's access rights, there is an additional two pages that can communicate with a robot arm, angle page and coordinates page. In the angle page, the user can enter a degree angle of each motor. In coordiant page, the user can enter the coordinates of points to be addressed by the robotic arm. To simplify the process of controlling, a robot arm in the coordinate page and angle page displayed shows the image of the state of the robot arm during the control process. Besides user, access rights can only accessed by 1 (one) of the user so there is no struggle user to control the arm robot.

Testing the LAN scenario obtained by 0.322970121 seconds delay and throughput of 4.764 bytes/sec. On a real LAN with a delay of 0.323009027 seconds and throughput of 20.764 bytes/sec.

**Keyword: robot arm, *embedded ethernet*, *website* and motor servo Dynamixel AX-12.**