

ABSTRACT

Water is the most important thing in fish farming. Without any water with a good quality, fish farming will face some problems. One of the effort to maintain the quality of water is controlling the value of pH water. The value of pH water must be maintained at 7-8 (netral). Another effort to maintain the quality of water is controlling the water level. Nowadays, fish farmer still use the manual method to control the pH and water level. They must often go to the pool to control the water

In this final project has designed the system that can control the pH and water level automatically. Electrode pH sensor is used to measure the pH. This sensor is more precision and quicker than litmus paper. and ultrasonic sensor is used to measure the water level. In this final project, microcontroller is used to control the system, using fuzzy logic method.

After some testing, the system that can automatically control the pH and water level have produced. This system can automatically neutralize the value of pH, and maintaining the water level.

Key words : *pH, ultrasonic, microcontroller, fuzzy logic.*