ABSTRACT

sidat fish (Angullus sp) is a fish that has fins near the back of the head then sidat fish have an oblong and blunt head. Because sidat fish live in water, water quality such as water temperature and water pH are very necessary to be monitored and maintained.

In this final task, a system is designed to monitor the value of water quality in sidat pools remotely through the blynk application as an Internet of Things (IoT) platform equipped by the notification on the user's smartphone if the peristaltic pump is on. and maintaining water quality in the sidat pool is done by giving an acid solution or alkaline solution automatically with fuzzy logic methods. As a process that must be passed with the output is an order to turn on the peristaltic pump as an actuator in order to provide an acidic solution or alkaline solution in the sidat pool.

In this final task use the Aquarium as sidat fish pond fitted with sensors - sensors on the right side of the pond, on the wide side to the left of the pool fitted with a water pump, and on the long side of the back of the pool fitted with an actuator. The final task tool uses the DS18B20 temperature sensor to determine the water temperature value in the sidat pool, and the SEN0161 pH sensor to determine the pH value of the water in the sidat pool. The results of sensor testing conducted to get an accuracy value are the DS18B20 temperature sensor with an average accuracy value of 99.11% and the SEN0161 pH sensor with an average accuracy value of 97.61%.

Keywords: *fuzzy logic, sidat fish, Internet of Things (IoT), Water quality*