

ABSTRACT

In this modern era, many people like to keep freshwater predatory fish, especially the Peacock Bass fish because of the various shapes and motifs. However, Peacock Bass owners may not always be at home to supervise their favorite pets due to personal matters. Therefore we need a system that helps Peacock Bass fish keepers to reduce the potential for fish to get sick and lead to death of the fish.

In this Final Project, an application is made that can monitor ammonia level, acidity, and water temperature. A good acidity level for Peacock Bass is a pH of 6 – 7.5 and an aquarium water temperature of 27°C to 29°C. The application made can be used remotely and can also display water parameters in real-time in the aquarium, where the microcontroller is connected to the Bluetooth network at the aquarium owner's home, then the sensors will collect data and be sent directly to the BTESP32 application. And we can see the data on the application installed on the owner's cellphone if the aquarium water does not match the parameters that have been determined

In this final project, the author succeeded in creating a user interface in the form of an Android-based application that can monitor and provide information to application users about water quality in aquariums. The results of application testing using the Black-box test mobile application can run according to the designed user interface. And the results of the response time button test were successfully carried out and got results under 2 seconds.

Keywords: Bluetooth application, notification, water cleanliness, Internet of Things (IoT)