

## ABSTRACT

In the breeding of fish there are many things to consider first to produce a healthy and large fish. Optimal conditions are very necessary in the breeding of fish, one of which is red fish breeding with a bioflok system. This bioflok system focuses on recycling pool water so farmers do not need to change pool water too often. The system is also assisted with the optimal condition that can start in terms of the condition of the pool water that has a temperature and pH level that always varies depending on the climate conditions around it. Like when it rains, the pH level of the pool water and the air temperature around the pool will change.

Considering the efficient and efficient growth aspects of fish production, the Internet of Things (IoT) technology can be a solution to the problems faced by the livestock industry, especially related to and how to feed fish efficiently and effectively through Android devices.

To solve this problem, we have proposed the development of a red fish feed system based on IoT. The system makes it easy for farmers to feed automatically by looking at aspects of pool water conditions as well as the air temperature around the pool. The amount of feed will be given depending on the condition of the pH level in the pool water and the air temperature around the pool. If the water conditions are at the optimal level, then the amount of feed given will be more than when the conditions are not optimal. The system will have sensors to track the temperature and pH of the water as it can be monitored through the Telegram app. Feeding can also be done automatically, giving as many as 3 times a day at 8am, 1pm, and 5pm. Users can also schedule manually. The amount of this feed supply, whether automatic or manual, remains subject to previously set conditions.

*Keywords: red fish breeding, internet of things, adaptive systems, automatic feeding*