# ABSTRACT

*Water quality in general shows that the water condition is good or not, the same in tilapia aquaculture which is now a popular pet fish in freshwater swimming pools in Indonesia. Tilapia live in an aquatic environment and carry out active interactions between the two. Fish and water can be said to be an open system where there is an exchange of matter and energy, such as oxygen (O2), carbon dioxide (CO2), and waste materials. Water qualityfor tilapia aquaculture with a relatively low pH value reference is optimal 7-8, temperature ranges from 14-38°C and adapts to its natural habitat.*

*Through this research, a tool capable of monitoring water conditions in fish ponds based on IoT (Internet of Things) was developed.. Indicators measured in the form of pH, temperature, and level of turbidity of water in fish ponds. This device can monitoring the indicator remotely by reading the values sent by Arduino Uno into an online database which is then forwarded to the web. So that we can read the values on the web that will be displayed via a smartphone. This final project will explain about the implementation of fish pond monitoring which will explain in the final project book "Design and Implementation of Water Feasibility Monitoring Tools in Microcontroller Based Internet of Things (IoT) Fish Ponds/software and hardware sections.*

*This design has been successful, because the tool is able to monitor fish ponds so that the measurement results of parameters namely pH, temperature and turbidity are obtained in real time. In addition, parameter values can be seen through the blynk application on a smartphone to make it easier fot keepers to find out the water conditions in the fish pond.*

***Keywords:*** *Tilapia Fish, pH meter, temperature, water turbidity, microcontroller, web, Internet Of Things.*