

ABSTRACT

Maintenance of fish in the aquarium is very important, by providing feed in a timely manner, monitoring the temperature of the aquarium and maintaining the intensity of light in the aquarium to maximize the place for cultivating these fish. Fish really need adequate food nutrition, should not be lacking and should not be excessive. Regrettably at this time the fish feeding system is generally done manually which directly involves the owner of the fish, for fish owners sometimes their daily lives are preoccupied with other activities that cannot be abandoned.

In this study the authors will design a smart aquarium system based on the internet of things (IoT) that can monitor the aquarium in real time for the condition of the aquarium temperature and light intensity in the aquarium, with automatic and scheduled feeding features that can be adjusted by the user as needed. The aquarium will be designed using an ESP32 microcontroller, RTC as a realtime scheduler, LDR light sensor, and DS18B20 temperature sensor. The system will use a website application for IoT-based remote control and monitoring with the MQTT network protocol.

Kata Kunci: *Internet of Things, Website, MQTT.*