

ABSTRACT

Vaname shrimp cultivation requires strict water quality control to maintain shrimp health and growth. This research aims to develop an Internet of Things (IoT) based water quality monitoring system in vaname shrimp cultivation ponds. This system will monitor important parameters such as salinity, pH, water turbidity and ammonia in Real-Time using sensors connected to a microcontroller and a mobile application. The designed mobile application will make it easy for farmers to access water quality information, receive warning notifications, and control devices such as aerators remotely. By implementing this system, it is hoped that it can increase the productivity of vaname shrimp cultivation, minimize the risk of death due to poor water quality, and reduce operational costs through more efficient management.

Keywords: Vaname Shrimp, Water Quality, Internet of Things, Remote Monitoring, Mobile Application