

ABSTRACT

Internet of Things (IoT) refers to the network of identifiable and addressable objects that have the ability to communicate and exchange information regarding themselves and their environments that they sense. Objects in IoT can use or produce services and work together to attain a common goal. With this ability, IoT has shifted the traditional definition of internet as anywhere and anytime computing to anything, anyone and anyservice computing. One of the IoT implementations can be done on the Vannamei Shrimp aquaculture system. This is because many farmers who manage the shrimp farm Vannamei still in the traditional way, not to follow the development of the current era, where the technology is increasingly modern.

Many efforts can be made to improve the cultivation of Shrimp Vannamei, that is developing the cultivation by building an IoT-based website, where the website is connected to the microcontroller system, through firebase platform. The web has important features in aquaculture, including farmers can more easily control water ph, water temperature feed status and feeding manually.

Subjective test results obtained 4.12 results from a scale of 1 to 5, then the application performance Shrimp Culture Web Server is categorized as Good Enough. While on the test The average performance delay obtained from the experiment to 1 to the 5th experiment less than 1 second, then entered in very good category. Average jitter obtained from each experiment, entered in the good category that is 1 ms to 1 s. Throughput obtained from each experiment is different, but there is a range of 0.025 Mbps to 0.316 Mbps.

Keywords: PH, Web Server, Temperature, Internet of Things.