ABSTRACT

The development and management of freshwater crayfish culture depends entirely on monitoring water quality. Poor water quality can also affect the growth of crayfish and can cause production failure. Optimal and good lobster production is very dependent on the physical, chemical, and biological quality of the water, regardless of the type of facilities in the pond. The success of good fisheries management is determined by variables such as Power of Hydrogen (pH), Dissolved Oxygen (DO), Water Temperature, and Conductivity which are the basic parameters tested in this study. Among them, the most critical are temperature, dissolved oxygen, and pH. One of these problems has an impact on the fisheries sector, namely the cultivation of Australian Red Claw Crayfish which uses a freshwater environment. There are several other problems in this field, including the absence of automatic measurement sensors that are integrated with existing technologies and systems in the freshwater crayfish farming ponds. In this application, Internet of Things (IoT) technology is an alternative to measure the value of the four components and is integrated using technology in the form of a wireless connection, and monitoring can be carried out continuously in real time. This research seeks to provide the design and implementation of Smart Dashboard for Smart Aquaculture farmers and architecture for sensor integration using the IoT platform.

Keywords— Smart Dashboard, Architecture Design, Analysis, Evaluating Water Quality, Fisheries Sector