Abstract

Water quality has an important role in the life of fish. Especially the tilapia fish pond on the rooftop of the Telkom University Surabaya campus which needs to be considered to support successful cultivation and growth. However, the method used on the rooftop of the Telkom University Surabaya campus still uses a manual to filter the pool, which makes it less effective. Therefore, a rotary drum filter system was created using fuzzy logic to make it automatic when carrying out filtration. By adding monitoring and control using the Blynk application you can monitor and control the filter from anywhere in real-time to make it more efficient. This system research is expected to provide high filtration efficiency in filtering particles and dirt from water. This will significantly improve water quality and support the survival of fish or other farmed organisms. The test shows that the system has succeeded in processing data using the fuzzy Mamdani method and obtained accuracy results with an average accuracy of 85.7% with an error of 14.3%.

Keywords: Design, RDF Filter, Internet of Things, Fuzzy Logic, Tilapia Fish Pond.