ABSTRACT

The textile industry is one of the industries that affect the economy in Indonesia. The more the textile industry develops, the more waste it produces. Before being disposed of, the textile industry liquid waste must be processed first so that the waste quality standard is in accordance with Government Regulations. By utilizing the Internet of Things, a textile waste water quality standard monitoring system was designed with a gravity sensor pH meter v2.0, Turbidity Sensor and Total Dissolved Solids (TDS) sensor linked to LYNX-32 which is designed to measure pH, Turbidity and TDS parameters in wastewater textiles. By sending data using the Internet network and then sending it to the Antares IoT platform. Testing of this system is carried out with a container filled with textile waste water and then the components of pH, TDS and Turbidity are added. Test results for pH sensors with an average accuracy of 94%, turbidity with an average NTU value of 34.33 and a TDS accuracy value of 97%. Then the results of wastewater measurements were obtained by a pH sensor of 8.2 which was categorized as alkaline, the Turbidity sensor detected a high turbidity level of 41.93 and the amount of dissolved solids measured by the TDS sensor was around 1443 ppm. Then all data is sent via the Internet network to the Antares IoT platform with the average value is 2 second.

Keywords: Textile Industry Waste, Monitoring System, Total Dissolved Solid (TDS), Turbidity, pH