

ABSTRACT

The liquid waste of the textile industry is the residual output from the production process of a textile industry. Industrial waste that is directly discharged into estuaries such as rivers or drains without further treatment processes can lead to environmental pollution. Based on the Minister of Environment of the Republic of Indonesia Decree No. Kep-51/Menlh/10/1995 regarding Wastewater Quality Standards for Industrial Activities, if wastewater is directly discharged into rivers, it can result in environmental pollution that impacts human health and the ecosystem of the river. Therefore, there is a need for monitoring and tracking of waste to ensure that the discharged waste complies with the wastewater quality standards set by the government. This study utilizes three parameters: pH sensor, turbidity, and color. The sensor readings can be remotely monitored through an IoT platform, namely Antares, or directly observed through an LCD screen. The research findings indicate that the system is capable of monitoring wastewater outcomes with sensor accuracy of 99.55% for pH, 100% for turbidity sensor, and 100% for color sensor. This accuracy was achieved through data collection processes repeated 20 times for each sensor.

Keywords: Lynx-32, Sensors TCS3200, Turbidty, pH, Monitoring