

ABSTRACT

Water is the main need for every living thing, starting from animals, plants, and humans, from the human side, water plays an important role in everyday life, therefore water that has good quality is needed. Along with the times, the quality of water is decreasing in quality, so from this a tool is formed that functions as a wastewater treatment plant or commonly called a Waste Water Treatment Plant (IPAL). This IPAL functions as a filter for waste water before it is channeled into waters such as rivers, but in IPAL to check the results of treated water, it must go through a laboratory test process, so from this, ideas are created to create a tool that can monitor the results of IPAL processing in real time. Where this tool aims to facilitate the process of monitoring the results of IPAL water treatment, by using several sensors, namely pH meters, TDS, and Electrical Conductivity, to see the results of sensor readings using Long Range communication contained in Internet of Thing (IoT) technology which is forwarded to Antares gateway and displayed on the Antares platform that has been created. After testing at the Cilongok 1 Public Health Center for 3 days, it can be concluded that the level of accuracy produced by each sensor on the results of wastewater treatment at the IPAL has an average of 98.15% pH sensor, 96.68% TDS sensor, and EC sensors of 95.29%, the value of each sensor is still within the measurement tolerance value of each sensor and the readings of each sensor can be monitored in real time on the Antares platform using a smartphone or laptop..

Keywords: *IPAL, pH meter, TDS, Electrical Conductivity, Antares*