ABSTRACT

Aquascapes or artificial ecosystems in aquariums have a high level of sensitivity in terms of maintenance, many factors need to be considered, including water temperature and the level of stability (ph) in the water. The design of this automation system to regulate water temperature and monitoring the ph of the water in the aquascape is based on the problems faced by aquascape owners who have to pay attention to the level of temperature stability every time, and ph for the survival of the plant ecosystem in the aquascape. The water temperature in the aquascape is very influential for the survival of aquatic plants. Water temperature can be measured using a thermometer. Aquascape water temperature will be ideal if the water temperature is 25 – 28 degrees celsius. Then the ideal ph for an aquascape is 6 to 8. More than or less than that ph, the water conditions in the aquascape are unstable and can cause plants to become unhealthy and cannot grow optimally. From the results of the tests that have been carried out, it is known that the system can work well. Testing QoS (Quality of Service) for sending device data to telegram the delay value obtained is 2282s. In QoS testing for reading data from device to device to telegram. The average throughput obtained is 414.69 bps.

Keywords *: Aquascape, aquascape water temperature, sensor*