

## **ABSTRACT**

*The swimming pool is one of the public facilities that is in great demand by the community, so it needs to be taken care of properly. One of them is to treat swimming pool water so that it is safe for use by the community. Water in swimming pools, of course, also has standardized quality standards regulated in the Minister of Health of the Republic of Indonesia no. 32 of 2017 to regulate good water levels in swimming pools with one of the parameters using Oxidation Reduction Potential. In the Oxidation Reduction Potential (ORP) parameter, of course, a measuring tool is needed to be able to find out the value of the swimming pool water, so an Oxidation Reduction Potential (ORP) measurement device is designed using components from the ORP meter, ORP sensor, lynx32 microcontroller and LCD whose value is The ORP will be sent via the Antares platform. ORP measurement is done by taking 3 swimming pool water samples which will then be tested. The results of the first test of the 3 samples obtained the largest ORP value of 326 mV on the ORP meter and 323 mV on the ORP sensor. Where the ORP value is still far from standardized quality standards. So it is necessary to do a second test by adding chlorine to the swimming pool water sample. After adding chlorine, the ORP value has increased with the largest ORP value being 761 mV for the ORP meter and 689 mV for the ORP sensor, which means that the value has met the standard quality standard, namely 720 mV. So that the addition of chlorine is very important to do with the aim of increasing the ORP value and the water in swimming pools can meet quality standards. Furthermore, the results of the delay test show that the average delay value is 296.97 ms with a good category based on ITU-G.T.*

**Keywords:** *chlorine, swimming pool, Oxidation Reduction Potential (ORP)*