

ABSTRACT

The swimming pool is one of the sports center which has many benefits for a person's body. The pool was good was the pool that has some corresponding parameters so it does not make the body experience decreased performance or to say the body does not experience pain. The parameters that make a good pool or on an ideal that pH, water temperature, total alkalinity, hardness, TDS, and chlorine. These parameters have values that become the benchmark that a pool can be said to be ideal or not.

In this final project designed a system that can monitor a swimming pool that is adapted to one of the parameters. The parameters used in this case is the temperature. The case studies are used and a swimming pool in the Tokong Nanas building in Telkom University.

In the swimming pool fitted with a array of sense concept, which is running the pool monitoring several sensors communicate with each other which is controlled by a microcontroller with the method of Wireless Sensor Network so that later results of sensor readings will be poured into the form of a 3D graph.

After testing for 3 x 24 hours for an experiment and 2 x 12 hours for the pool produced a prototype that runs a system capable of monitoring the temperature is in the swimming pool into a 3D graph with different depths. Data that gets in as much as 76.63% for testing pool and 85.63% for swimming pool.

Keywords: *temperature, Wireless Sensor Network, microcontroller, 3D Graph, an array of sense.*