

SISTEM KONTROL LEVEL DAN MOTOR *MIXING* BERBASIS TINGKAT PH TANGKI SENDIMENTASI AIR SUMUR

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ABSTRAK

Proses pengolahan air merupakan proses perubahan sifat fisika, kimia dan biologi air agar memenuhi syarat untuk digunakan sebagai air yang sesuai standar. Penelitian ini bertujuan untuk mengetahui cara kerja dan akurasi sensor pH dalam mendeteksi pH air pada tangki sendimentasi air sumur dan untuk mengetahui akurasi sensor ultrasonik A01NYUB dalam mendeteksi level pada tangki sendimentasi air sumur. Cara kerja Sistem Kontrol Level dan Motor *Mixing* Berbasis Tingkat pH Tangki Sendimentasi Air Sumur, menggunakan tiga tangki, dua pompa air, dua sensor pH dan satu sensor ultrasonik A01NYUB. Akurasi sensor pH dengan rata-rata *error* tertinggi 1,6 % dan *error* terendah adalah 0 %. Akurasi sensor ultrasonik A01NYUB dengan rata-rata keseluruhan *error* 0,62 %.

Kata Kunci: Air, Sensor pH, Motor *Mixing*, Sensor Ultrasonik A01NYUB.

LEVEL CONTROL SYSTEM AND MIXING MOTOR BASED ON PH LEVEL OF WELL WATER SEDIMENTATION TANK

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ABSTRACT

The water treatment process is a process of changing the physical, chemical and biological properties of water to meet the requirements for use as standard water. This study aims to determine the workings and accuracy of the pH sensor in detecting the pH of the water in the well water sedimentation tank and to determine the accuracy of the A01NYUB ultrasonic sensor in detecting the level in the well water sedimentation tank. The workings of the level control system and the mixing motor are based on the pH level of the well water sedimentation tank, using three tanks, two water pumps, two pH sensors and one ultrasonic sensor A01NYUB. The accuracy of the pH sensor with the highest average error is 1.6% and the lowest error is 0%. The accuracy of the ultrasonic sensor A01NYUB with an overall average error of 0.62%.

Keywords: *Water, Arduino, pH Sensor, A01NYUB Ultrasonic Sensor.*