

**Sistem Klasifikasi Air Layak Minum Berbasis Internet of Things Menggunakan Metode Naive Bayes.** (Drinking Water Eligibility Classification System Based on Internet of Things Using Naive Bayes Method)  
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***ABSTRACT***

Water is a vital basic human need, and drinking water quality must meet certain standards to be safe for consumption. Unfortunately, people often assess water eligibility based only on physical characteristics such as odor, taste, and color. This study develops a Drinking Water Classification System based on the Internet of Things (IoT) using the Naive Bayes method to enhance accuracy in determining water quality. The system utilizes pH, TDS, temperature, and turbidity sensors integrated with an ESP32 microcontroller and displayed via a website.

The Naive Bayes method is applied to calculate the probability of each water quality parameter using 1000 training data and testing on 32 different types of water. The test results show that the system achieved 96.9% accuracy, 96.9% precision, 100% recall, and 98.4% F1-score. This system helps the public to determine drinking water eligibility in real-time, objectively, and efficiently through online monitoring.

**Keywords:** Water Quality, Naive Bayes, Internet of Things, Sensors, Classification System