

**PERANCANGAN SISTEM MONITORING SUHU HEATER DAN
KANDANG AYAM BERBASIS WEBSITE** (*Design of a Website-Based*

Temperature Monitoring System for Heater and Chicken Coop)

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ABSTRACT

The broiler chicken farming industry in Indonesia is growing rapidly, yet temperature and humidity monitoring in coops is still largely done manually, making it inefficient. This research aims to design a website-based monitoring system for heater and coop temperature using ESP32 microcontroller, DS18B20 sensor for coop temperature, MAX6675 for heater temperature, and DHT22 sensor for coop humidity. Sensor data is sent to Firebase and displayed in real-time and historically through the PoultryPulse website built with HTML, CSS, JavaScript, Bootstrap, and Chart.js. System testing was conducted using ISO 25010 standards covering functional suitability, Usability, Reliability, Performance Efficiency, and Maintainability. The test results show that almost all features function properly (93%), Usability falls into the very good category, Reliability reaches 100%, the website performance achieves an A grade with a load time of 4.8 seconds, and Maintainability is considered good. In conclusion, this system is feasible to be used as a practical and efficient IoT-based chicken coop monitoring solution.

Keywords: *Internet of Things, Firebase, Monitoring, Website, ISO 25010*