ABSTRAK

Perancangan Sistem Instrumentasi Pengukuran Partikulat Meter Jarak Jauh Menggunakan Sistem Wireless Dan Accsess Internet

Oleh

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Sistem monitoring data partikulat meter dikendalikan oleh Arduino mega dan pengujian alat dilakukan menggunakan HAVS TE-6000 series. Alat pengukuran partikulat meter yang dirancang pada penelitian memiliki nilai resolusi partikel sensor diameter 1.0 µm. Pengukuran data partikulat meter dilakukan diperumahan Griya Gedong Meneng Indah, Rajabasa Bandar lampung. Pengambilan data dilakukan selama rentan waktu 24 jam dengan pengiriman data partikulat meter setiap 3 detik. Sistem interfacing penelitian dibangun menggunakan aplikasi *PHP* yang telah berhasil menghubungkan *hardware* dengan PC sehingga data hasil pengukuran dapat disimpan dalam *database* MySQL. Data pengukuran partikulat meter menggunakan koneksi internet sehingga data bisa diakses client jarak jauh.

Kata Kunci: Arduino Mega, HAVS TE-6000 Series, Partikulat Meter.

ABSTRACT

Instrumentation System Design of Remote Particulate Meter Measurement by Using Wireless System and Internet Access.

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Particulate meter data monitoring system was controlled by the Arduino Mega and testing tools was done by using HAVS TE-6000 series. The design of Particulate meter measurement tools in this study had a score sensor resolution to measure particle 1.0 μm in diameter. Particulate meter data measurement was done in Griya Gedong Meneng Indah, Rajabasa Bandar Lampung. Data was collected for 24 hours by sending particulate meter data every 3 seconds. The interfacing systems in this study was built by using PHP application that had been successfully connecting the hardware to PC so that the measurement data can be stored in the MySQL database. Particulate meter measurement data was displayed by using an internet connection so that data can be accessed by the client in a distance.

Keywords: *Arduino Mega, HAVS TE-6000 series, Particulate meter.*