

ABSTRACT

Measurement of moisture soil is very important in determining the time watering plants, soil wetting depth, the depth of the growth of plant roots and soil wetting sufficiency. This study discusses the design and implementation of the system of measuring soil moisture content of gypsum-based electronic block. Measurement data are stored automatically in a database and then performed with a sensor calibration step gravimetric measurement results. The test results obtained from system design performance with accuracy (%) rate of error in the measurement at each sensor gypsum block.

Keywords :Moinsture soil, Gypsum block, gravimetric.

INTISARI

Pengukuran kadar lengas sangat penting dalam menentukan waktu penyiraman tanaman, kedalaman pembasahan tanah, kedalaman pertumbuhan akar tanaman dan kecukupan pembasahan tanah. Penelitian ini membahas mengenai rancang bangun dan implementasi sistem pengukur kadar lengas tanah elektronis berbasis *gypsum block*. Data hasil pengukuran disimpan secara otomatis di database dan selanjutnya dilakukan langkah kalibrasi sensor dengan hasil pengukuran gravimetri. Hasil pengujian dari sistem didapat kinerja rancangan dengan akurasi (%) tingkat kesalahan pada pengukurannya pada setiap sensor *gypsum block*.

Kata kunci: kadar lengas, *gypsum block*, gravimetri.