

ABSTRACT

Greenhouse is a building where plants are cultivated. For example, the cultivation of pepper plants, because plants have many advantages besides chilli has many benefits for human health and financially. Currently, the cultivation of pepper plants in the greenhouse itself is still manually, for example terms of watering, temperature regulation and irradiation to stabilize the plant in it. Balai Besar Pengembangan Mekanisasi Pertanian (BBP Mektan) in Serpong - Tangerang is one of greenhouse under control (watering, temperature regulation and radiation) with an automated system.

This design is a prototype of a greenhouse with a scale of 1: 3000 of the original size, with the aim of promoting and introducing a controlled greenhouse to the public near or far. Controlled system starting from the input derived from the Temperature & Humidity Sensor and Sensor Soil Moisture. Temperature sensors read the conditions in the room got a ration greenhouse with a voltage of 5V DC to read from the microcontroller, as well as the Soil Moisture Sensor.

The results obtained by the temperature sensor to read the temperature and humidity in the room where it will be visible on the LCD display 16x2 and Soil Moisture sensor reading dry soil moisture content will then turn on automatic watering and provide notice via twitter with the help of GSM / GPRS module.

Keywords: Microcontroller, Sensor Temperature, Soil Moisture Sensor, Module GSM / GPRS.