ABSTRACT

Humidity & Temperature meter is a device used to measure humidity and air temperature in the room. Measurement of humidity and temperature of the room is needed, especially in the ICU and operating room.

Not only temperature and humidity of the room who should receive special attention, the intensity of light in the hospital room also must meet several requirements in order to not cause accretion of excessive air in the room and also the three berhubungn closely. Refraction of light in the room alone is reduced in intensity, but this bias reduces indoor humidity and temperature, and can lead to breeding of insects and rodents indoors

Given the importance of monitoring of the three things the author makes a three-parameter monitoring tool by adding the measurement of light intensity.

From the measurement results obtained for the parameters of the average temperature error (% error) of 0.87%; As for humidity parameters obtained an average error (% error) 0.56%; For the parameters of the average intensity obtained; error (% error) of 1.27%;. So with an error less than ± 2% then it is feasible to use tool.

By using the LM35 temperature sensor, humidity sensor HSM-20G, LDR light sensor, zero and span circuit, ADC circuit 0804, multiplexer 4051 and circuit and microcontroller AT89S51 IC Humidity And Temperature meter can work and read the temperature, humidity and light intensity according to the room function. LDR can be used as light sensors, in this case the intensity of light the room.

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Keywords: HUMIDITY,   TEMPERATURE,   LIGHT,   AT   microcontroller   89s51