

ABSTRACT

Heart rate and body's temperature monitoring device is a device used to monitor a patient's condition continuously. This device will displayed the number of heart rate and the change of body's temperature of a person every minute continuously. The amount of BPM obtained from the pulse / blood flow in the blood vessels of the index finger censored by the finger sensor. As for the body's temperature, LM35 is used as a sensor that converts heat into electrical signals. Signals results from this both sensors will be processed on the microcontroller circuit. In processing the data to be displayed on the LCD, the author using ATmega8 as IC microprocessor.

Monitoring process is done by a wireless device, so that the doctor or nurse can monitor heart rate and body's temperature of the patient even in a separate room. This device can be used in patients in the HCU Stroke or other isolation room at the hospital. Because the previously device has not equipped with a body's temperature parameter, so the authors develop it with additional parameters, since both these parameters are the vital parameters for the patient.

Based on the results of tests and measurements in 6 patients by measurement of 5 times on each patient compared with SPO2 and digital thermometer, earned the average value is not much different from the comparison value, that is the measurement error average 0.48% for BPM data and 0.26% for the temperature data.

After conducting the literature study, planning, experiments, making the module's process, testing the device, and data collection, generally it can be concluded that the device 'BPM and Body's Temperature Monitoring Device Using a Wireless Based on Microcontroller ATmega8' can be used and appropriate with the plan.

Keyword: Monitoring, BPM, body's temperature, wireless