

ABSTRACT

Healthiness is very important and need to be noticed by humans, especially body temprature and blood tension. If both things are not in normal condition then it will indicate that the person is having a disease.

Human potential caused by body temperature and blood pressure can be known monitoring way. Human body temperature will be measured with DS18B20 temperature sensor with excellent accuracy, reaches (0,5°C) and and blood pressure measured using oscillometric method by using MPX5050GP sensor. On the body temperature measurement of the DS18B20 sensor is placed on the axillary part of human body and blood pressure can be measured by placing the cuffs on the wrist. The result will be shown at Android device to make it easy for people to monitor their health.

This research is providing a brand new device to monitor body temprature and blood tension with Android based. To prove the result of body temperature and blood pressure measurement of this tool will be compared with measurement by using digital thermometer and sfigmomanometer on arm. From this research, the result have shown that accuracy value of DS18B20 temperature sensor is 98.89 %% and the error value of blood pressure measurement using MPX5050GP sensor is $\pm 8\%$.

Keyword: Wrist, Oscillometri, DS18B20 sensor, MPX5050GP sensor, NodeMCU, Monitoring, Android