

ABSTRACT

Health is the most valuable asset for everyone, because if the condition of the body is in an unhealthy state then all of its daily routine will be disrupted so that it becomes unproductive. As is known heart disease is one of the highest causes of death in the world, while body temperature can indicate something in the body, for example: inflammation, infection and so on. There fore we need a heart rate detector combined with body temperature to find out things that have an impact on clinical problems experienced by a person. The heart rate and body temperature measuring instrument is designed with an ESP8266 microcontroller based on the internet of things using the MLX90614 sensor as a temperature meter and a pulse sensor to detect heart rate. Heart rate and body temperature data are displayed on the 16x2 LCD in the form of numbers and will then be sent via an internet network connection and displayed on the Smartphone. This tool aims to make it easier to know the frequency of heartbeats and body temperature. The tool can measure heart rate and body temperature with a pulse sensor and mlx90614 sensor by making contact with the skin and has 10 seconds - 1 minute to get accurate measurement results, low delay and does not have high errors as evidenced by a maximum percent deviation of 3, 79% for heart rate and 3.30% for body temperature and review delay via wirshark.

keywords: Heart beat, MLX90614 NodeMCU ESP8266, Pulse Sensor, Body Temperature.