

ABSTRACT

One of the dangerous diseases that cause death in sufferers is heart disease. Based on data from The Institute for Health Metrics and Evaluation (IHME) (2016), it shows that deaths in the world caused by heart and blood vessel disease reach 17.7 million people or around 32.26 percent of total deaths in the world. The representation of heart health can be seen from the number of heart beats (HR) and oxygen saturation (SpO₂).

The development of technology is currently growing rapidly, especially in technology that is IoT (Internet of Things). The goal is to make it easier to monitor health conditions, especially before and after exercise. This system is a system designed using a max30100 sensor for heart rate and a DS18B20 sensor for body temperature and then to determine the user's health condition, namely by measuring heart rate and body temperature before exercise and then parameters for decision making by applying the Naïve Bayes method. And use android applications such as Blynk to display the results of heart rate and body temperature and display a decision whether the user can exercise or not.

In the results of this final project research was carried out with 5 respondents with 3 trials per 5 seconds each. And the average throughput value on wemos d1 is 745.35 bps and on wemos d1mini is 641.47 bps and the average delay value on wemos d1 is 1463ms and on wemos d1mini is 1539ms

Keywords: *Internet of Things, Heart Rate, Body temperature, Naïve Bayes, Blynk*