

ABSTRACT

Heart rate and body temperature are vital signs that are routinely checked by the hospital or clinical signs and are useful for strengthening the diagnosis of a disease. In the process, heart rate and body temperature checks in some hospitals still use a manual system where a nurse must come to the patient's room to see and records the patient's heart rate and body temperature. This system is less effective because it takes a lot of time, with this tool it can be expected to be directly done manually by the patient and can monopolize the heart rate and body temperature which is relatively fast and can be done anywhere and whenever you want to be examined. This study proposes the design and implementation of heart rate and body temperature monitoring using a pulse sensor and a DS18B20 body temperature sensor with LoLin NodeMCU ESP8266. This DS18B20 sensor is a body temperature sensor that supports the use of WiFi so that it can be processed using NodeMCU and can receive data from the sensor which will be routed to the Blynk application so that it can be monitored using the application. It is hoped that this tool can make it easier for someone who wants to check their heart rate and body temperature and can also be monitored using the Blynk application. The QoS *Throughput* test got an average of 7.68 kbps with an index of 1, *Packet Loss* got an average of 0 with an index of 4, *delay* got an average of 231,209 ms with an index of 3, and *jitter* got an average of 231,181 ms with an index of 1 THIPHON version . There is a difference in the output produced by the system. When sensor data is sent to the blynk, this happens because the very fast sensor reading process is not optimal due to the addition of a fairly complicated process for sending sensor data reading to the *blynk*.

Keyword: Sensor Pulse, Sensor DS18B20, Internet of Things, Blynk Application