

ABSTRACT

Febrile convulsions are seizures that occur due to high body temperature above 38°C due to extracranial abnormalities. Febrile convulsion is a seizure that often occurs in children and infants and is likely to recur. Febrile convulsions are seizures that occur due to extracranial processes as a result of high body temperature and occur in less than 15 minutes. Infectious processes that occur in the extracranium can cause the body temperature to become high and can lead to seizures.

To determine the body temperature condition of patients with febrile seizures, a body temperature monitoring device is needed. The monitoring can be seen anywhere by utilizing the Internet of Things to find out the state of the patient's body temperature.

The tool made will utilize the DHT11 temperature sensor to detect the patient's body temperature, the body temperature value as input whose data will be processed by the NodeMCU microcontroller. After that the data will be sent to Firebase using the internet network. The output of this system will be displayed on a smartphone.

The smartphone application is made using the Android Studio platform and displays the Body Temperature of patient and is equipped with color code warnings green, yellow and red on the digital display. The conclusion of this system design is designed to make it easier for nurses or doctors to monitor the body temperature conditions of dengue fever patients and other disease patients through smartphone applications in real time remotely without visiting the patient's place and there is medical record data to see monitoring results on smartphones. The temperature measurement accuracy rate when implemented on adults is 99.45%.

Keywords: *Firestore, Internet Of Things, NodeMCu Esp8266WiFi, DHT11 Sensor, Smartphone, Android Studio.*