

## **ABSTRACT**

*A thermometer is a tool to measure the state of body temperature due to the Covid-19 pandemic, so that a thermometer is needed by the community. In Indonesia and even in the world, when traveling it is mandatory to check body temperature first, one of which is the Posbindu activity where the activity is a crowd activity between teenagers and parents. Then on the other hand it can provide information that can be analyzed or monitored automatically by the visitor counting system. However, with limited tools to digitally count the number of visitors and measure body temperature at inflated prices, there are many shortcomings. By utilizing several sensors such as the IR temperature sensor GY-906 MLX 90614 (infrared), the NodeMCU ESP8266 microcontroller and adding a sound feature that is using a buzzer for each use. In this design, it is hoped that it can be used by the community, especially in posbindu activities. Data from each sensor will be sent to the microcontroller as a control center so that it is displayed on the LCD and an application is made with visual studio. The infrared sensor compared to the standard tool, namely the thermogun, got the highest calibration results, namely 99.78% with an error of 0.22%.*

**Keywords:** *Covid-19, Infrared sensor, NodeMCU ESP8266 Microcontroller, ultrasonic sensor.*