ABSTRACT

The aims of this research to make a Heart Attack Detection device based on wireless. Meanwhile the background to this device is that a heart attack occurs due to a sudden blockage of blood flow to the heart, using materials that can be used and minimizing the number of murder victims who in fact have increased in the world in this regard. Placement devices at hand are also very easy for mobility. Heart rate usually depends on the amount of time needed by the heart rate per unit time, usually represented as bpm (beats per minute). The optimal heart rate for each person is different depending on when the heart rate is measured. The variation in heart rate is according to the amount of oxygen needed by the body at that time. Previous studies using pulse sensors to obtain heart rate values, in this device using piezoelectric sensors that function through an electric field formed by interconnected compilations and mechanical stresses. Application to drain blood to the heart when moving the hand to get the bpm value. Wireless integration on this device makes it easy to check and evaluate the results of what will be done then consider the conditions that can be seen and send notifications to the device through the application. Applications used in this device through ESP32 are programmed for wireless on Smartphones that have the Blynk application programmed. The bpm test point (beats per minute) in each series contains a graph on the oscilloscope and the results of the Wi-Fi distance test that remain connected to a distance of 5 meters indoors, up to 10 meters when different indoors.

Keyword : Device, Wireless, Wearable, Heart Rate, Piezoelektric, ESP32