

ABSTRACT

Heart disease or cardiovascular is one of dangerous disease for humans. Heartbeat rate monitoring should be done by humans for maintaining health condition, especially when our body do the excessive activities. The system should be equipped with warning notification features for users when the heartbeat reached above the normal level. Because of that, the system must be developed with many efforts to find out the level of user heart rate (low, normal, or high) also can give warning notification to the closest family. One of preventing method that can be done is implementing pulse sensors for heartbeat detector and integrating raspberry pi, SMS gateway and GPS for detecting and preventing automatically at the same time. SMS gateway can be used for delivering SMS notification, while the GPS was built to find out user's location and the information will be sent automatically via SMS notification. From the testing, this system can detect and give a warning to users and give a notification to the closest family about the user's heartbeat condition information when the heart rate reached above the normal level. This system has an accuracy value until 80% to execute heartbeat rate detection.

Keywords: Heart, Warning, SMS Gateway, GPS