

ABSTRACT

Unbalanced proportion of the number of patients and doctors or other medical personnel in Indonesia that is far from ideal leads to the lack of patients condition monitoring. The far distance between the doctor's office with the patients' room and the excessive number of patients are examples of monitoring obstructions.

According to the medical world, there are three important parameters used while monitoring patients condition. These are heart rate, respiration rate and body temperature. Along with the development of technology and as one of the solutions of the existing problems, the author wants to create a system design that is able to monitor patients condition with those three parameters in real time based on WLAN.

The result of the test showed that this system work well and data sent in real time. Jitter from the network has a value of 0.018687 seconds. There is a noise in ECG signal but still showed a normal form signal. Respiratory measurement has 98% accuracy and body temperature has 95% accuracy.

Keywords: ECG, respiration rate, body temperature, WLAN