

ABSTRACT

Patient vital signs monitoring is an important activity in medical field. The vital signs being monitored including ECG, heart rate, respiratory rate, oxygen saturation and body temperature. Often doctors or nurses are not near the patient. This can be caused by the inadequate number of doctors and nurses, resulting in patient vital signs monitoring become inefficient.

In this book explained the design of prototype of patient vital signs monitor. This prototype consist of two devices, which are sensor device and monitor device. The sensor device were designed to detect vital signs using e-Health Sensor Platform and send them to monitor device wirelessly using ZigBee protocol.

The result of the tests showed that ZigBee protocol can be used in area that has Wi-Fi network. ECG chart still has noise but can display a normal ECG signal form. Respiratory measurement has standard deviation of 0, and body temperature measurement has standard deviation of $\pm 0.2^{\circ}\text{C}$.

Keywords: monitor, vital signs, ZigBee protocol, e-Health Sensor Platform