

ABSTRACT

Electrocardiogram (ECG) is a form of physiological signal produce by electrical heart activity. This signal taken by an electrocardiograph and display as graphic. Electrocardiogram graph have specific shape that can use as reference to determine heart condition. Digital electrocardiograph is a form of an acquiring electrocardiogram signal device that can use monitoring heart condition. In the existing electrocardiograph the graphic display in the same device that prosecute medical aid to check patient condition one-by-one.

Wireless LAN 802.11b technology is a common technology that uses to build wireless computer network. The advantage of this technology is easy to integrate with existing infrastructure. Technology 802.11b using 2.48 GHz frequency and include in industrial, science, and medical that free to use.

This final assignment succeeded realize three leads digital electrocardiograph as electrocardiogram monitoring system using embedded wireless LAN as data transmitter. This electrocardiograph device produce ECG signal in frequency range 1.94 – 20 Hz and line of sight coverage range up to 93m. Electrocardiogram data transmit to cardiologist or medical aid real time so cardiologist can monitor the patient remotely.

Keyword : *embedded, wireless LAN*, ECG, 802.11b