ABSTRACT

The vast development of telecommunication of technology and information system has made users able to access the data anywhere and anytime with internet - web service is the one. Popularity of Bluetooth technology was integrated in most recently hardware such as computer, laptop, telecommunication peripherals, and so health care peripheral. One click event, any peripheral on Bluetooth's personal access network, can build communication each other, and data exchange becomes a whole thing.

Integration both of two technologies above was able to build an application system which useful in distributing data which planted in Pocket PC for medical need, such as ECG monitoring. Many ECG monitoring system was developed up to in compact size there is in Pocket PC, with result, patient was able to monitoring ECG herself or himself. It is limited only acquisition data from body surface to the device.

This final work is to design and implement software system for data distribution via Bluetooth and web service and completely using wavelet de-noising for signal noise reduction. This final work covers software implementation. The result which obtained by this final work is such a system which able to show up the signal shape, de-noising the signal, saving the signal and then able to transfer data to internet network in case implementation of automatic de-noising, in condition when patient transmit data like noisy signal, function which plants on internet able to return the value of signal with noise reduction condition.

Keywords: Web Service, ECG, wavelet denoising**,** application system