



## Abstract

In the hospital, there is only one monitoring device for one sensor. With the development of technology, there are many sensors can in one device. One of the most commonly used sensors for monitor patient's condition is ECG sensor which used to determine the state of the heart, and PPG sensor which used to determine the volume of blood in the heart, a temperature sensor for measuring the temperature of the patient's body, and the infusion sensors that serve to determine the amount of fluid given to patients. To enable paramedic in supervising patients, a hardware containing ECG, PPG, temperature, and infusion in one device is made. The real purpose of the monitoring these sensors are to see if the patient's condition is stable or in critical state.

In this final task was made to monitor the patient's condition through the ECG signal, PPG, Body Temperature, and Infusion Fluid Conditions on Wireless Sensor Network in point-to-multipoint. The signals are sent from the sensors is received on a personal computer using Real Term software as media liaison. The signals is processed using Node.js, SQL, PHP and HTML that can be displayed on a web server. For transmit the data, there is wifi support using the router wifi. Therefore, it can be accessed by end users. By using the network connection point-to-multipoint, it can help paramedic for monitoring patient's condition in realtime and non realtime.

**Keywords** : Patient's Data , ECG , PPG , Body Temperature , Infusion , Point-to-Multipoint.