ABSTRACT

Heart disease is one of the most dangerous diseases and is commonly found in humans, cures or therapies for people with heart disease is quite complicated, such as heart conditions should be controlled as often as possible following the progress of development progressively improved or worsened. If the process of controlling the development of heart health is inhibited, not infrequently the heart disease continues to heart attack where the heart attack including the deadly condition.

From the above mentioned constraints developed a system monitoring the state of heart health of patients with light scattering analysis method reflected by the density of blood flow and capable of transmitting data through the Internet of Things (IoT) network, detection system using light sensor where any change of blood flow from the pulse will change the intensity of light received at the light sensor, from this process is calculated the time interval of each change of light intensity so that the end result is the value of the pulse in units of minutes ready to be transmitted through the Internet of Things (IoT) network.

After doing the implementation and analysis got the conclusion of accuracy of signal detector with the value of 95,7%. Accuracy of Analog to Digital Converter minimum reading is 99.4%. then the maximum reading accuracy of Analog to Digital Converter is 99.7%. For Interenet of Things connection is done jitter test based on the data and obtained the result of 0.0756 seconds in the condition of Message Queue Telemtry Transport (MQTT) Broker online.

Keyword : Internet of Things, Monitoring, online, Heart Attack.