

ABSTRACT

Every living thing needs food for stay alive. Human same as living thing eat food to fulfill nutrition, energy, healthy body, and every substance than our body need. Nutritions are needed because nutrition itself are substance that creates energy for every activity, grown, every function of our body like breathing, and to maintain body temperature. Meat as protein source, and vegetables as meat balancer that rich in vitamins, and calsium, those are the example that food has good impact for our body. Everey food that our body consume, need a good quality itself, good quality food will bring a lot of good substance to our body. The problem that happening right now is, needed foods are always growing and the quality itself is important too. Because of that problem, this monitoring system can help every farmer to monitor every livestock especially cow to solve that problem. This monitoring system will help to monitor the condition of the cow, like temperature of the cow, heart stroke, and the location of the cow, so the farmer can monitor and keep the condition of every cow, and the cow can provide a good quality meat.

In this research, the authors will make a smart necklace to monitor livestock animals especially cow, that can monitor and store data based on a web server connected to the internet access it through a website which can be accessed anywhere and anytime. The sensor data contained in the system will be sent using the connectivity contained in the SIM7000E module and parsed to the API (Application programming interface), and the database that used in this project is the MySQL database. Furthermore, the data contained in the database is displayed on the website using HTTP and HTTPS protocols. So that the designed website can be accessed, the author create a domain and prepares hosting.

In testing the functionality, the results that all the features can run well. QoS

testing on delay from client to server and server to client is in the very good and good category based on the standardization of the ITU-T G.1010. QoS testing on throughput from client to server and server to client has a very good results category of standardization of the TIPHON version. QoS testing on packet loss from client to server and server to client has a very good results category of standardization of the ITU-T G.1010 version

Keywords: *Smart Necklace, Website, Web Server, MySQL, API*