ABSTRACT

Sheep is one of the livestock that we often encounter in the community. In everyday life, sheep can be used in various industrial fields. To get the best quality of sheep, breeders must pay attention to several important factors. One of these factors is the weight of the sheep. However, the measurement of sheep's weight still uses the manual method so that there are differences in the way of raising the sheep which will reduce the quality of the sheep. To reduce this, a system called a sheep weight monitoring system is needed.

This system aims to monitor the weight of the sheep on the farm. This system uses a 100 kg Load Cell weight sensor which is connected to the HX711 module. The HX711 module functions as an analog signal converter from the sensor into a digital signal. The HX711 module is then connected to the NodeMCU ESP8266 which functions as the main microcontroller in this system where the NodeMCU ESP8266 will process the data sent and then display the processed data to the smartphone screen using the Blynk application.

This study succeeded in monitoring the weight of sheep using the Blynk application with an error of 0.83%. The error value was obtained due to several factors that occurred during the measurement, but the measurement results can be used as a reference to make it easier for sheep breeders to carry out good care so that the quality and price of sheep are better.

***Keywords**: Weight, Monitoring System, NodeMCU ESP8266, Blynk*