# ABSTRACT

*The advancement of digital information technology continues to develop over time, one of which is in the field of ruminants farming. Currently, sheep breeding still requires human labor to carry out breeding activities such as feeding goats well in the morning and evening, besides the constantly changing temperature and humidity conditions around the sheep cage environment will affect changes in appetite patterns in sheep livestock. So based on the needs of sheep farmers, technology implementation can be done to help ease the work of sheep feed management on ruminant farms. This project aims to create a simple IoT (Internet of Things) based assistive system, that is smart storage that has several sensor modules installed in the original storage scope. This system can monitor in real-time the availability of sheep feed filled in the storage by using a 5Kg loadcell sensor equipped with an HX711 module that functions to convert the analog signal generated by the loadcell into a digital signal so the loadcell sensor reading becomes more accurate. Meanwhile, to detect the temperature and humidity in the sheep's environment using DHT-22 sensor which is processed by nodemcu esp8266 as a microntroller, then the data is sent to the blynk server to display for results of the sensor data value input to the smart phone through the blynk application. In a condition if the weight of the feed is less than 300g then the system will give a short message meaning that the feed runs out or empty, otherwise if the weight of the feed is more than 300g then it does not send a notification, but displays the blynk dashboard in the numbers. The resulting display of information will show the availability of feed filled in storage shows the weight with units of kilograms (Kg), temperature units Celsius (C) and humidity units percent (%).*

*Keywords: Internet of Things, NodeMCU ESP8266, Loadcell, HX711, Modem WiFi, DHT22, Blynk*