

Abstract— In this research, the author proposes the use of the Internet of Things (IoT) to develop a rabbit activity monitoring system, utilizing motion sensors and the Naïve Bayes (NB) algorithm for activity classification. The system uses the ESP32 microcontroller and the MPU6050 sensor to collect motion data, which is then analyzed using Naïve Bayes to classify rabbit activities such as eating, moving, and sleeping. Naïve Bayes, a probabilistic machine learning algorithm, applies Bayes' Theorem to estimate the likelihood of each activity based on sensor data. The aim of this research is to improve the accuracy and efficiency of monitoring rabbit activities in farms, offering a potential solution for overcoming the challenges of manual monitoring. The results indicate that while the system achieves a classification accuracy of 42%, further refinement is needed to enhance the model's performance. The research lays the groundwork for advancing IoT-based solutions in agricultural monitoring systems.

Keywords— *Internet of Things (IoT), Naïve Bayes, Rabbit Activity Monitoring, ESP32 Microcontroller, Machine Learning, Sensor Data.*