ABSTRACT

Chicken meat is one of the favorite foods in various parts of the world, one of which is Indonesia. There are so many food menus made from chicken in Indonesian specialties. This causes the consumption of chicken meat in Indonesia is very high. This factor is used by the community to raise chickens. However, it is very unfortunate that the high business potential in the chicken farming sector is not accompanied by technological advances in the livestock sector.

Extreme weather changes can cause stress to chickens, if these stress are left unchecked, livestock can die. For that we need a technology that can control the temperature and humidity in the chicken coop automatically.is known smart poultry farm where this system can control many things in the farm, for example temperature and humidity. However, in its application this concept still uses a fairly conventional method, so the classification system does not work autonomously.

In this case, the author makes a temperature and humidity control system for chicken coops using the KNN method. The selection of the KNN method for the classification process of temperature and humidity is based on data that has been obtained from chicken farming companies. The temperature in the chicken coop will be maintained between 18 ° C to 40 ° C depending on the age of the chicken. Meanwhile, the humidity of the chicken coop will be maintained at 80% humidity. Variations in the value of K used in this study are 3, 5, 7, and 9 while the iteration values used are 10, 100, 1000, and 10,000 for the number of types of fan speed output, starting from 2 types of output, 4 types of output, 7 output type and 14 output types. The results obtained from this study resulted in a fairly high level of accuracy, namely 97.38%. This value is obtained in testing the fan speed with 2 types of output, using a K value of 3 and the number of iterations used is 10.

Keywords: Smart Poultry Farm, KNN, Machine Learning