

## ABSTRACT

Technology has experienced extraordinary developments in this century. Especially after the invention of the transistor. An invention that became the beginning of the departure of the development of an automated system or autonomous system [1]. Realized for the first time in certain industries, now autonomous systems have developed in livestock industries such as broiler cultivation.

The closed house system is a method of chicken cultivation that was developed to be able to manipulate the air circulation and temperature in the cage in order to obtain the standard of broiler climate requirements. Therefore, temperature control is the right term for this closed house system. The closed house system must ensure that all functions are carried out automatically with an effective monitoring system and input of reference temperature. Most of the practices carried out in supervising the operation of the control function are carried out by staying in the cage or in the control room. This of course causes problems, including the response of the system that cannot be 24 hours and is controlled by an open loop system.

In this final project the author has designed an automatic temperature control system at values of 28-29°C and 31-32°C based on IoT with a system response time of less than 60 seconds to be applied to broiler chicken coops with a closed house system. This design is done so that the cultivation process can be carried out automatically and anywhere without having to make direct contact with broiler chickens.

**Keywords:** closed house, broiler chicken, control, IoT