ABSTRACT

DESIGN OF AUTOMATIC FEEDER AND TEMPERATURE CONTROL FOR BROILER BASED ON PROGRAMMABLE LOGIC CONTROLLER IN CLOSED BROILER HOUSE

By

ANWAR KHOLIDI NASUTION

Most broiler breeders still use manual in feeding chickens and chicken coops maintain optimal temperature. With the farmer's routine, then a problem arises, namely forgetfulness breeder (human error) in chicken feeding and maintaining the optimal temperature broiler house. These problems coupled with erratic weather conditions. From these conditions, an idea emerged to create a tool that can help the farmers in Indonesia to resolve the problem, namely the automatic feeder and temperature control for broiler based on programmable logic controller in closed broiler house.

In this final project, a feeder and automatic temperature control built based on Programmable Logic Controller (PLC) Omron ZEN-20C1DR-D-V2. PLC is a device used to replace a series of relay circuits encountered in conventional process control system [1]. PLC at this final project programmed with Ladder Diagram using ZEN Support Software. In this tool designed conveyor will run for the feed stream (automatically) as many as three times a day. Actuator temperature at the tool in the form of heater and cooler blower. The main components of a command and as a trigger input PLC program is a pushbutton ON/OFF. While the output is a relay to trigger the motor. The results show that the tool is able to work as expected.

Keywords: PLC, Conveyor, Temperature, Automatic.