AUTOMATED CHICKEN'S FOWL MANAGEMENT SYSTEM BY USING PROGRAMMABLE LOGIC CONTROLLER (PLC)

This project is presented in partial fulfillment for the award of the
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ABSTRACT

The main purpose of this project is to fulfill the requirement to complete the degree courses in Electrical Engineering. Its objective is to develop problem solving, analysis, synthesis and evaluation skills in the field of Electrical Engineering in order to increase the performance of the Agriculture field.

This project is designing of an automated chicken's fowl management system at lower cost by using PLC and simple devices in order to reduce the complexity of the daily jobs and increase the performance of the agricultural production.

Users can operate the system by setting the ringing clock time then press ON the Start button for the system to start it's operation. In designing the system two path of work have been done.

The first path is the hardware and second is the software. The hardware consists of 12VDC Motor, 6VDC Motor, Valve, Lamps and others. For the software, SYSWIN 3.4 is used.

The program which controlled the system is written in ladder diagram. This program is entered to the PLC CPU using the window programming software called SysWin.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Automated is manufacturing process which human or worker previously involved in it and replaced by machines to perform its various stages automatically. Automation means of performing multifarious activities in the most planner and integrated manner, maintaining their own flexibility to do any work, effecting enhanced productivity, guaranteeing quality, assuring reliability and ensuring safety to the worker.

There is a lot of automation in the agricultural industry. Most of them focus on the high return industry such as cows, goats and farm. In the chicken supplies industry there is less automation that had been commercialized in order to reduce daily complexity of job and increase the production of this industry. In Malaysia the requirement chickens are about 1 million chickens per day, so if automation been introduced in this industry the supply for daily market can be increased and the import can be reduced.

An automated chicken's fowl management system is designed to serve, control and manage the whole chicken's fowl in order to take over the tedious and complex job that man feel hard to do for high volume or capacity of the chicken. From the research, there is only 1 worker to serve and take a look for 10,000 chickens. A new system of management which is based on automation should be introduced, in order to increase the volume or capacity of the chickens and reduce the manpower. This system will take over various systems in the fowl and manage it, and try to reduce the man power activities. The only job that man can do is to refill the food into the food container and supervise the system. Pertaining to this improvement, the owner of the chicken fowl can increase the production, by increasing the size of the chicken fowl to double or triple, because the daily operation will be controlled by the system.

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