CHAPTER 1

INTRODUCTION

1.1 Introduction

The water monitoring system will be use in the agriculture sector. This project is also can installed to contribute in the socio–economic development in country that still gets the water supply from well reservoir or river for farming. It will give a lot of easier to user to get the water by using pumping system compare to the traditional way and the farmer will get the better quality product for their yields.

1.2 Problem Statement

Various type of water pumping system that available in market nowadays, but this system alone with the traditional system can't overcome the intrusion problem. To make this system more efficient and useful for agriculture industry, it should be upgraded to be more efficient. This project is designed with the dumb monitoring system to make the users easy to monitor the level of water on the tank.

Water monitoring system is a safe option to monitoring tank levels as it doesn't require climbing on top of the tank and reaching in to make measurements. All it involves is monitor the water level on the display windows at the Personal Computer which may be located in the garage or shed.

1.3 Objective of Project

The objectives of this project are:

- To develop the water monitoring system where the water level automatically detects by the sensor system.
- To program the automatic pumping system using the microcontroller, where the program simulates data from sensor using analogue to digital converter (ADC).
- To develop graphic user interfacing system using Visual Basic software to monitor the water level.

1.4 Project Scope

The scope of this project is to develop user friendly integrated system for agriculture purpose. It will help the user to pump water from well reservoir or river into the water tank using the automatic pumping system and monitor the water level on the dump monitoring system. The overall concept of this project is shown in Figure 1.1. It has a sensor that will be detect the water level, and it will generate a signal to control by the microcontroller 8051. The microcontroller will process the data signal and control the motor pump to allow the amount of water that will be flow into the tank. The processed data from microcontroller will be sent to personal computer PC and software program Visual Basic is needed to interface the data. Then the interfacing system will display the water level on the tank.

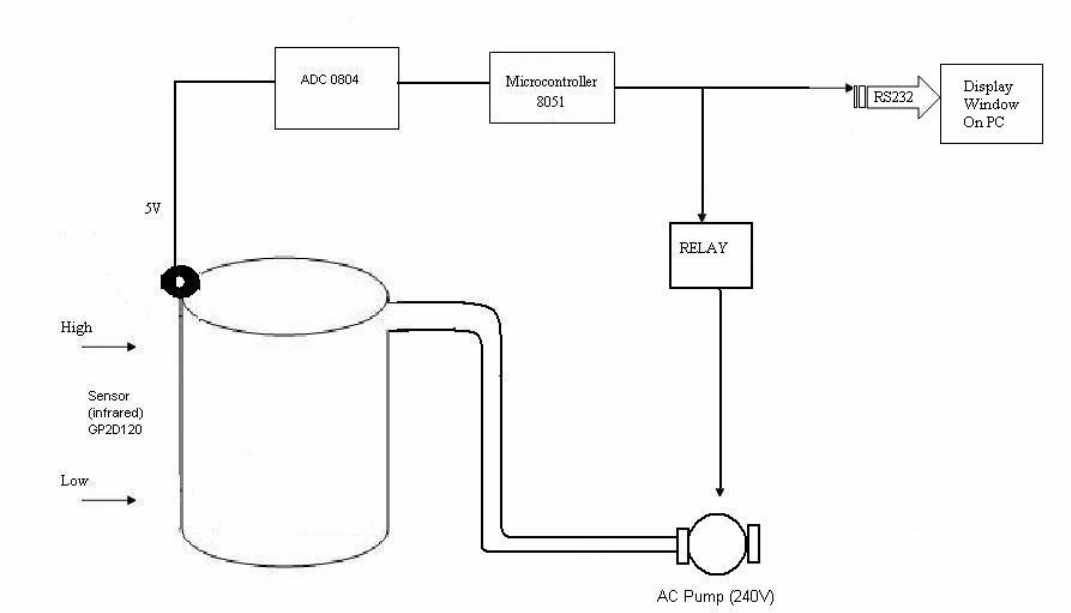

Figure 1.1: Flow Diagram for Water Monitoring System

1.5 Report Outline

Chapter 1 gave an introduction about the project as well as problem statement, objective and project scope for project.

Chapter 2 is a literature review where the main part of water monitoring system will be described and understanding all components that will be used for this project. The purpose of this chapter is to provide an overview the scope of study for this project.

Chapter 3 is methodology section where the methods or steps that have been used to approach to water monitoring system will be explained thoroughly.

Chapter 4 is the result and discussion where all the result of the analysis will be shown. Discussion and observation of the outcome of the research in relation to evidences obtained from project and theories will be made in this chapter.

Chapter 5 is conclusion for this project, which describe the overall project based on the observation of the result obtained and summarize the entire project. This chapter also discusses the recommendation for future planning.