AUTOMATIC IRRIGATION SYSTEM

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ABSTRACT

There is nothing more beautiful and pleasant lush garden or landscape where one spends time outdoors. However it can be extremely difficult to make sure that the garden watered as efficiently as possible. Furthermore watering the farm can be exhausting, lengthy and time consuming chore. Therefore in this project we proposed a convenient and easy solution to this problem and one can install automatic irrigation systems in the garden in order to get rid of the troubles associated with watering your garden manually. It has ability to discharge precise and exact amounts of water to particular area. The calculation of the amount of water applied and the efficiency was measured. The sensor of moisture was used in this circuit to detect the condition of soil and the comparator will compare the voltage to make the plant watering. Automatic irrigation helps in watering the plant efficiently very helpful for farmers, workers, or housewives or those who took part in gardening or planting. This project will also ensure the faster growth rate poor plants and also save much time from gardeners from watering the plant manually.

CHAPTER 1

INTRODUCTION

1.1 Background of Study

In Malaysia agriculture was a gross domestic product, which is a high level for a country at Malaysia's stage of economic development. The sector also involves around one million workers, with about half of these being temporary migrants. Parts of the agricultural sector are highly dynamic, and have good potential for the future.

In this regard, a thought is given to develop an Automatic Plant Watering System depending on soil condition. Irrigation engineering comprises of a full knowledge of sources of irrigation water, their proper preservation and application of this water to the land after conveying it from the source through an irrigation system, consisting of canal and connected works. It also includes a working knowledge of different types of soils and the water requirements of various crops sown in them. In this project work lot of importance is given for the drip irrigation, such that by sensing the soil humidity water supply can be controlled automatically. For sensing the soil condition sensor are used.

Irrigation is usually required when the yearly rainfall is either insufficient or ill distributed or ill timed. Yield is much better where irrigation is practiced and fields are watered at the proper time. In countries like India and Egypt, irrigation provides employment for large sections of people. It raises the standard of living and prosperity. Irrigation projects are successful only when sufficient quantities of water are available and