GSM BASED AUTOMATIC GREENHOUSE WATERING SYSTEM

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ABSTRACT

The system proposed in this project is 'Green House Watering System using GSM' which is a smart technology to provide plants and trees the required nourishment from the sunlight and to prevent the plant on the greenhouse from the harmful effects. System components used are humidity and temperature sensor, soil moisture sensor, transistor switches, relay nodes for automatic control, and arduino to control greenhouse information. The system is implemented using low power wireless components that are Arduino UNO. At the same time, we are using Proteus Software to stimulate the circuit to make this more efficient. A model of greenhouse is achieved. It was possible to do control plant growth through closely studying relationship between indoor environmental information and monitored information on crop itself. It is made possible to collect information and control effectively and automatically of greenhouse in the site or from a remote place through GSM modem.

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INTRODUCTION

1.1 Background of study

Some gardeners are tending to forget to water their plant. Eventually, the plants dehydrate and die. They are busy with their work and love to travelling that make them forget to take a look of their own plant. This project will help the gardener to watering their plant automatically and can make sure their plant in a good condition.

The automatic greenhouse watering system based on GSM will fully automate the management of a greenhouse watering system using the latest system and technology. In this project a soil moisture sensor are used to determine the need of watering process. Human cannot measure the moisture of soil by themselves. With the help of the soil moisture sensor moisture of the soil can be accurately detected. The appropriate moisture of the plant will make the soil get enough water and in a good condition.

In this system Arduino UNO is use as a microcontroller. The Arduino UNO is simple and easy to control than the other microcontroller. Arduino UNO can monitor and control the system.

The Global System for Mobile Communication (GSM) is also use in this project. GSM will navigate the data from the sensors to alert the gardeners through their mobile phone. This is done by directly sending alert notification messages to gardeners using GSM and SMS technology.