Real time atomization of Agricultural Environment

ABSTRACT:

Atomizing the agricultural system is very useful for old people and normal persons who lives far away from the agricultural field. If installed and programmed properly, automatic agricultural systems can even save us money and help in water conservation. Here LCD and GSM receive the information about temperature, humidity and conditions of the soil and motor. The paper "Modernization of Indian agricultural system using micro controller" using microcontroller and GSM" is focused on atomizing the irrigation system for social welfare of Indian agricultural system and also to provide perfect irrigation in particular area. Soil electrical conductivity sensor sense the condition of the soil whether it is dry or wet and sends the information to microcontroller. Water level sensor senses the water level in the water source and sends the information to the microcontroller. Microcontroller sends the information to the relay then controlling of the motor is done. Temperature and humidity sensor also sense the condition of the weather and sends the information to microcontroller. There is a serial communication between microcontroller and GSM. So the information from the microcontroller is sent as SMS through GSM .LCD displays & GSM receives the information about temperature, humidity and conditions of the soil and motor our project aims to implement the basic application of Modernization the irrigation field by programming the components and building the necessary hardware. This project is used to find the exact field condition and it will give information to farmer by sending sms.

INTRODUCTION:

Micro controller is the contemporary general purpose in the embedded market used in industrial level applications yield. In the field of soil environmental monitoring, real-time monitoring the temperature and humidity of soil can correctly guide agricultural production and improve crop. Automatic agricultural systems are convenient, especially for those who travel. If installed and programmed properly, automatic agricultural systems can even save us money and help in water conservation. Dead lawn grass and plants need to be replaced, and that can be expensive. But the savings from automatic agricultural systems can go beyond that.

Watering with a hose or with oscillator wastes water. Neither method targets plant roots with any significant degree of precision. Automatic agricultural systems can be programmed to discharge more precise amounts of water in the field, which promotes water conservation.

At present, labor-saving and water-saving technology is a key issue in agriculture. There have not

been any significant technological advancements being made in agricultural sector as compared to other sectors. Agricultural system needs to be monitored on a regular basis. The use of this project is to reduce the wastage by automating the entire agricultural system.

The water or moisture sensor is placed in the field which continuously senses the moisture content in the field. If the field is dry, then the microcontroller unit automatically turns on the motor. If the field

is wet, the microcontroller automatically turns off the motor. Temperature and Humidity sensor senses the weather conditions and sends the values to the mobile.

PURPOSE : As we know that in india 70% People depend on agriculture for their employment. so it is very necessary to improve Indian agriculture system using modern technology. The productivity of soil greatly depends upon its surrounding temperature, humidity, its electrical conductivity, water supply so it is very important to keep continuously monitoring of this data so farmer can take right decision to increase its production so by using new technology like soil electrical conductivity sensor ,temperature sensor ,humidity sensor and phase sensor of electrical motor in farm we are going to introduce our this project .also we will continuously monitor water level of well and this data will be send to farmer on its mobile and also can displayed on LCD screen so time is saved and long distance controlling is possible.

BLOCK DIAGRAM: