**ABSTRACT**

India is agriculture-based country. Our ancient people completely depend on the agriculture harvesting. Agriculture is a source of live hood of majority Indians and has great impact on the economy of the country. In dry areas or in case of inadequate rainfall, irrigation becomes difficult. So, it needs to be automated for proper yield and handled remotely for former safety. Increasing energy cost and decreasing water supplies point out the need for better water management. Irrigation management is a complex decision-making process to determine when and how much water to apply to a growing crop to meet specific management objectives. If the farmer far from agriculture land he will not be noticed of current condition. So efficient water management plays an important role in the irrigated agriculture cropping system.

A low-cost alternative solution for efficient water management currently in use is drip irrigation system that consist of an automated control to turn on and off the control values. Which in turn helps the farmers by managing the water supply to the crop fields and further maintains the moisture levels of soil that helps in better crop production. This project probes into the design of the automated irrigation system based on Arduino. This embedded project to design and develop a low-cost feature which is based on embedded platform for water irrigation system.

**TABLE OF CONTENT**

PROPJECT REPORT FOR APPROVAL FOR B.E

DECLEARTION

ACKNOLEDEMENT

ABSTRACT

1. INTROUDUCTION
2. OBJECTIVE OF PROJECT
3. LITERATURE SURVEY
4. PROBLEM STATEMENT
5. SCOPE OF PROJECT
6. ADOPTED METHODOLOGY
   1. BLOCK DIAGRAM
   2. HARDWARE REQUIREMENTS
   3. SOFTWARE REQUIREMENTS
7. ADVANTAGE OF PROPOSED SYSTEM
8. CONCLUSION AND FUTURE SCOPE
9. REFFERENCE
10. **INTRODUCTION**

By using the concept of modern irrigation system, a farmer can save water up to 50%. This concept depends on two irrigation methods those are conventional irrigation like overhead sprinklers, flood type feeding system i.e. wet the lower leaves and steam of the plants. The area between the crop rows become dry as the large amount of water is consumed by the flood type methods. In which case the farmer depends on the incidental rainfalls. The crops been infected the leaf mold as the soil surface often stays wet and is saturated after irrigation is completed.

Overcoming this drawback new techniques are adopted in the irrigation techniques. Through which small amount of water apply to the parts of root zone of plant. The plant soil moisture stress is prevented by providing required amount of water resource frequently or often daily which moisture condition of soil will retain well. The diagram below shows the entire concept of modem irrigation system. The traditional techniques like sprinklers or surface irrigation requires uses half of water source. Even more prices amount of water can be supplied to the plants. As far as the foliage is dry the plant damage due to disease and insects will be reduced. Which further reduces the operating cost.

The dry rows between plants will leads to continuous federation during the irrigation process. Fertilizers can be applied to this type of system. And the cost required for will also reduce. The erosion of soil and wind is much reduced by the recent techniques when compared with overhead sprinkler systems.

As the method of dripping will reduce huge water lose it become popular method by reducing the labour cost and increasing the yields. When the components activated, all the components will read and gives the output signal to the controller, and the information will be displayed to the user(farmer). The reading reading all analog in nature so the ADC pin in the controller will convert the analog into the digital format. Then controller will access information and when motor is turned on and off it will be displayed on the LCD panel.