

# **AUTOMATIC WATERING SYSTEM FOR AGRICULTURE FIELDS USING ARDUINO**

A Project report submitted in partial fulfillment of the requirements for the award of  
degree of

**BACHELOR OF TECHNOLOGY  
IN  
ELECTRONICS AND COMMUNICATION ENGINEERING**

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**2015-2019**

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**CERTIFICATE**

This is to certify that the project entitled **"AUTOMATIC WATERING SYSTEM FOR AGRICULTURE FIELDS USING ARDUINO"** in partial fulfillment for the of degree of **Bachelor of Technology** in **ELECTRONICS AND COMMUNICATION ENGINEERING**, at **AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, MAKAVARAPALEM, VISAKHAPATNA** is an benefited work carried out by **M.SATYA GANESH, M.SATYA VENI, S.SIVA, S.PRATHUSHA DEEPTHI** under the guidance and supervision during 2015-2019.

  
**PROJECT GUIDE**

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## **Abstract**

Watering is the most important cultural practice and most labor intensive task in daily greenhouse operation. Watering systems ease the burden of getting water to plants when they need it. Knowing when and how much to water is two important aspects of watering process. To make the gardener works easily, the automatic plant watering system is created. There have a various type using automatic watering system that are by using sprinkler system, tube, nozzles and other. This project uses watering sprinkler system because it can water the plants located in the pots. This project uses Arduino board, which consists of ATmega328 Microcontroller. It is programmed in such a way that it will sense the moisture level of the plants and supply the water if required. This type of system is often used for general plant care, as part of caring for small and large gardens. Normally, the plants need to be watered twice daily, morning and evening. So, the microcontroller has to be coded to water the plants in the greenhouse about two times per day. People enjoy plants, their benefits and the feeling related to nurturing them. However for most people it becomes challenging to keep them healthy and alive. To accommodate this challenge we have developed a prototype, which makes a plant more self-sufficient, watering itself from a large water tank and providing itself with artificial sunlight. The pro-To type reports status of its current conditions and also reminds the user to refill the water tank. The system automation is designed to be assistive to the user. We hope that through this prototype people will enjoy having plants without the challenges related to absent or forgetfulness