

Implementation of Automatic Plant Water Supply and Monitoring System

**Kajal Ukey¹, Reshma Patle², Ruchatai Raut³, Apurva Dethe⁴,
Pratiksha Waghmare⁵, Prof. Harish Gorewar⁶**
Students, Department of Information Technology^{1,2,3,4,5}
Guide, Department of Information Technology⁶
K.D.K. College of Engineering, Nandanvan, Nagpur, Maharashtra, India

Abstract: *In daily operations related to farming or gardening watering is the most important practice and the most labour-intensive task. No matter whichever weather it is, either too hot and dry or too cloudy and wet, you want to be able to control the amount of water that reaches your plants. Modern watering systems could be effectively used to water plants when they need it. But this manual process of watering requires two important aspects to be considered: when and how much to water. In order to replace manual activities and making gardener's work easier, we have create automatic plant watering system. By adding automated plant watering system to the garden or agricultural field, you will help all of the plants reach their fullest potential as well as conserving water. Using sprinklers drip emitters, or a combination of both, we have design a system that is ideal for every plant in the yard. For implementation of automatic plant watering system, we have used combination of sprinkler systems, pipes, and nozzles. In this paper we have used ATmega328 microcontroller. It is programmed to sense moisture level of plants at particular instance of time, if the moisture content is less than specified threshold which is predefined according to particular plant's water need then desired amount of water is supplied till it reaches threshold. Generally, plants need to be watered twice a day, morning and evening. Thus, the microcontroller is programmed to water plants two times per day. System is designed in such a way that it reports its current state as well as reminds the user to add water to the tank. All this notifications are made through mobile application. We hope that through this prototype we all can enjoy having plants, without being worried about absent or forgetfulness.*

Keywords: Automatic Plant Water Supply

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