

Soil Moisture Monitoring and Smart Irrigation System using IOT and Mobile Application

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Abstract: *Water is a basic need in all plantations, human, economic operations. Farmland, renewable energy, the economic areas. Even with human needs water and its properties takes the most vital role in sustainability of the agricultural, office, home plants. The most critical part occurs here is maintaining the water moisture in soil and maintain the humidity and moisture of the soil accordingly. The critical role becomes in the huge green houses, offices, homes. Therefore using the IoT based smart irrigation system does a certain task to make sure the proper and efficient use of watering and maintaining the climate temperature and humidity. Therefore, the critical role that information technology methods and internet communication technologies (ICT) play in irrigation and temperature maintenance to limit the excessive waste of water and to control and monitor humidity and temperature. In this paper, we have to review research that uses the internet of things (IoT) as a communication technology that controls the preservation of the available amount of water humidity and not wastes it by homeowners and farmers and temperature controlling. In contrast, they use water, and we have also reviewed some researches that preserve soil moisture and maintain the proper growth and health of plants and automaton in the daily life based irrigation system reduce human efforts.*

Keywords: Smart Moisture Management, Smart Plant Management; IoT; Soil Humidity; Microcontroller; Sensors; Controller Mobile Application

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