

UNIVERSITI TEKNOLOGI MARA

**AUTOMATIC WATER SYSTEM
PLANT**

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ABSTRACT

Home gardening offers a relaxing hobby for city dwellers. Frequently, they have to get involved with activities outside of the city which leaves their home gardens unwatered for some time. A drought may increase the atmospheric temperature, especially in the city region. An unwatered garden and extreme heat can lead to fatal dehydration in the plants of a home garden. Most automatic watering systems work on the time-activated system which fail to cater well for raising the temperature. This project works on developing a conceptual prototype of a mobile application watering system for home gardens in urban dwellings. A mobile application (App) is an application software designed to run on a mobile device for performing a specific task by the user. A specific Sonoff device is installed into the house garden watering system. The Sonoff device is a WiFi switch that can be distantly controlled for activating the mobile application watering system house garden watering system. The WiFi switch is initiated using a smartphone App via internet communications. On a very hot day, he can frequently view and water his home garden while working at the office desk. The project has successfully implemented and tested the conceptual prototype of a mobile App house garden watering system.

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

During the covid pandemic season, cultivation became a very popular communal activity and it had also become popular even before the pandemic. Therefore, it is shown that this cultivation has become a common routine in society because plants can decorate our homes with a pleasant atmosphere for those who crave a greener interior, and can creatively decorate ideas for home as well. Cultivation activities become an attraction to the community because they can help the community to fill their free time, can reduce stress, and be able to spend time with family. Also, growing plants indoors space naturally helps clean the air of human breath and also acts as a bit of oxygen a supplier that is beneficial to human beings. It is proven in studies by NASA and Allied Landscape Contractors of America.

However, most people have trouble keeping their plants healthy and alive. According to some studies, people often forget to cultivate their plants, between daily activities[1]. Plants need to be watered with sufficient amounts to keep them fertile. Therefore, watering is an important activity in plant care. Every plant needs a variation of sufficient quantity of water because too much water can suffocate plant roots and too little water causes growth to be erratic and stunted.

1.2 Problem Statement

This system will guarantee that the plants are watered depending on their needs, and the user will be aware of the results and status.

Today, there are far too many failed plants across the neighborhood. If we disregard this issue, it will take a long time to transplant the plant. This difficulty arose as a result of the household's activity with job and life. Every household wants to have their own crop where they may plant anything they want, but they don't have time to irrigate their plants.