IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 1, November 2024

Automation in Greenhouse using IoT

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Abstract: *This work provides an IoT-based plant monitoring system for avoiding over-exploitation of resources, ensuring compact design with easy installation and the best environment for the plants to grow. This type of agricultural monitoring system provides environmental monitoring services that help the crop grow in good shape. The system offers the service of storing a database about the environment and soil information acquired from a wireless sensor network deployed in the planted area. Furthermore, it enables users to track environmental data regarding planted crops in real-time using any Internet-enabled device. Our project introduces automatic sunlight prevention and soil moisture control based on data received from the moisture and temperature sensors. The proposed work is implemented using a microcontroller, programmed accordingly to measure the temperature and moisture using respective sensors. It is well capable of controlling temperature by operating a fan, controlling a shade for blocking excess sunlight and controlling moisture by operating a watering device through a motor. The potential outcome of the project work can be used for greenhouse*

Keywords: Greenhouse, IoT, Internet-enabled device, Automation