

Submission Summary

Conference Name

International Conference on Advances in Computer Engineering and Communication Systems

Track Name

ICACECS2024

Paper ID

616

Paper Title

Solar Tracking and Automatic Irrigation

Abstract

Solar Tracking and Automatic Irrigation is a modern solution designed to enhance agriculture by improving water management, increasing crop yields, and reducing environmental impact. It addresses challenges such as water scarcity and climate change that affect traditional irrigation methods. The Solar Tracking and Automatic Irrigation integrates essential components: soil moisture sensors for precise scheduling, weather data for informed decisions, and real-time monitoring with intelligent algorithms for effective irrigation. This system focuses on conserving electricity and water. Automating the irrigation setup is to enable remote control and monitoring of the status of the setup even when farmer is away from the location. This paper proposes a new system with the use of advanced sensors and a TelegramBot to provide SMS acknowledgment whenever there is any critical action that is initiated during the process. This includes water being pumped in excess to a crop, there is too much of sunlight for a sustained period and many other critical situations. The farmer will then have opportunity to, ARDUINO UNO, DC WATER PUMP, Moisture Sensor, take necessary action. It offers a sustainable solution for agriculture by optimizing water usage, improving crop yields, and reducing resource consumption.

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Submission Files

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