

Remote control of solar irrigation system





Overview

The adverse effects of climate change and climate variability are hindering agricultural productivity in developing countries. When combined with the laborious nature of irrigated agriculture, many sm.

Can a mobile solar-powered irrigation control system be used for real-time scheduling?

This study aimed at developing a mobile solar-powered control system for real-time scheduling using feedback from soil moisture sensors. A smart solar-powered irrigation control system (Smart Irri-Kit) was developed to schedule and automate water delivery to crops based on soil moisture levels.

What is a smart irrigation control system?

A smart solar-powered irrigation control system (Smart Irri-Kit) was developed to schedule and automate water delivery to crops based on soil moisture levels. It incorporates an automated tank water level control system that triggers pump activation during irrigation.

Can solar energy power a remote controlled photovoltaic irrigation pivot?

To address these challenges, this work focuses on the design and implementation of a remotely controlled photovoltaic irrigation pivot. The objective of this work is to develop an intelligent and automated irrigation system using solar energy to power the pivot and controlled remotely via a user-friendly Android application.

Is solar-powered irrigation a viable solution for modern agriculture?

The system also considers the economic viability of solar-powered irrigation, supported by government subsidies, especially in regions like India. The combination of solar energy and smart control technologies offers a sustainable, cost-effective solution for modern agriculture (Chieochan et al., 2017).



Remote control of solar irrigation system



[IOT Enables Remote Control Smart Garden with Solar System](#)

Jul 24, 2025 · The proposed system automates essential gardening tasks such as irrigation, soil moisture monitoring, temperature and humidity control, and real-time surveillance, all while ...

[Solar Powered Irrigation: A Sustainable Solution For Agriculture](#)

Apr 29, 2025 · Remote control operation - Farmers will be able to monitor and control irrigation through smartphones. Automated water level sensors - Systems will detect reservoir and tank ...



[IOT Enables Remote Control Smart Garden with Solar System](#)

Jul 24, 2025 · This paper presents the design and implementation of an IoT-enabled remote control smart garden powered by a solar energy system. The proposed system automates ...



[Design and Implementation of a Solar-Powered Irrigation Pivot System](#)

May 28, 2024 · This work focuses on the study and realization of a remotely controlled photovoltaic irrigation pivot, aiming to revolutionize irrigation practices in agriculture.



One of ...



[Weipu × E-abel in Smart Farming: Solar-Powered Automated Irrigation](#)

Aug 30, 2025 · Learn how Weipu connectors and E-abel enclosures integrate solar power into automated irrigation systems, ensuring reliable water management for modern farms.



[A solar-powered, internet of things \(IoT\)-controlled water irrigation](#)

Jan 16, 2025 · Efficient water management is crucial in modern agriculture, especially in regions facing water scarcity. Traditional irrigation systems often result in water wastage, which ...



[IoT-enabled solar-powered smart irrigation for precision ...](#)

Mar 1, 2025 · A website was created utilizing the Python Django framework, and an SQLite3 database was implemented, enabling real-time monitoring and remote control of the irrigation ...





Development of a solar powered smart irrigation control system ...

Oct 1, 2023 · This study aimed at developing a mobile solar-powered control system for real-time scheduling using feedback from soil moisture sensors. A smart solar-powered irrigation control ...



Design and Implementation of an IoT-Driven Irrigation System with Solar

Dec 15, 2024 · The use of IoT technology in irrigation systems plays a crucial role in agriculture by enabling precise monitoring and control of water resources. This paper presents the design ...

Solar Based Water Irrigation System Using Rf Remote ...

Apr 15, 2025 · The system is integrated with an IoT-based control panel via Kodular, enabling users to operate the irrigation system remotely. This smart irrigation system enhances water ...



Contact Us

For catalog requests, pricing, or partnerships, please visit:
<https://www.llsolarenergy.co.za>



Scan QR Code for More Information



<https://www.llsoleenergy.co.za>