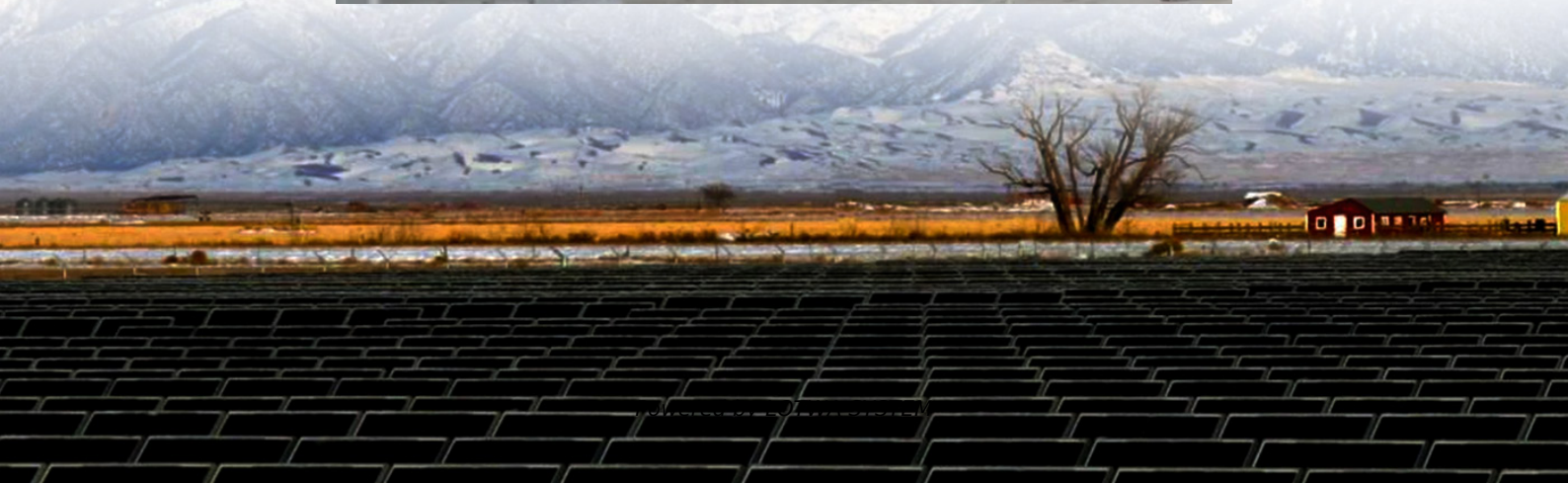


Automatic Solar-Powered Containerized Irrigation System for Agriculture





Overview

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).

Can a solar-powered irrigation control system be used autonomously?

Given the growing need for sustainable agriculture practices, the development of a solar-powered smart irrigation control system kit holds immense promise. By harnessing solar energy, this kit can operate autonomously, reducing dependence on conventional energy sources and minimizing operational costs for farmers.

What are solar-powered irrigation systems?

One of the most promising solutions to emerge is the use of Solar-Powered Irrigation Systems (SPIS's), which harness solar energy to power irrigation pumps. These systems, combined with advanced control technologies, are revolutionizing farming practices, offering a sustainable path forward for the industry.

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.



Automatic Solar-Powered Containerized Irrigation System for Agriculture

Automated Solar Powered Irrigation System for Varied Crops

Apr 4, 2024 · Over the years, traditional agricultural practices are characterized by the problems of significant wastage of water and time during field irrigation, and the consequent loss of ...

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

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Design and evaluation of a solar powered smart irrigation system ...

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