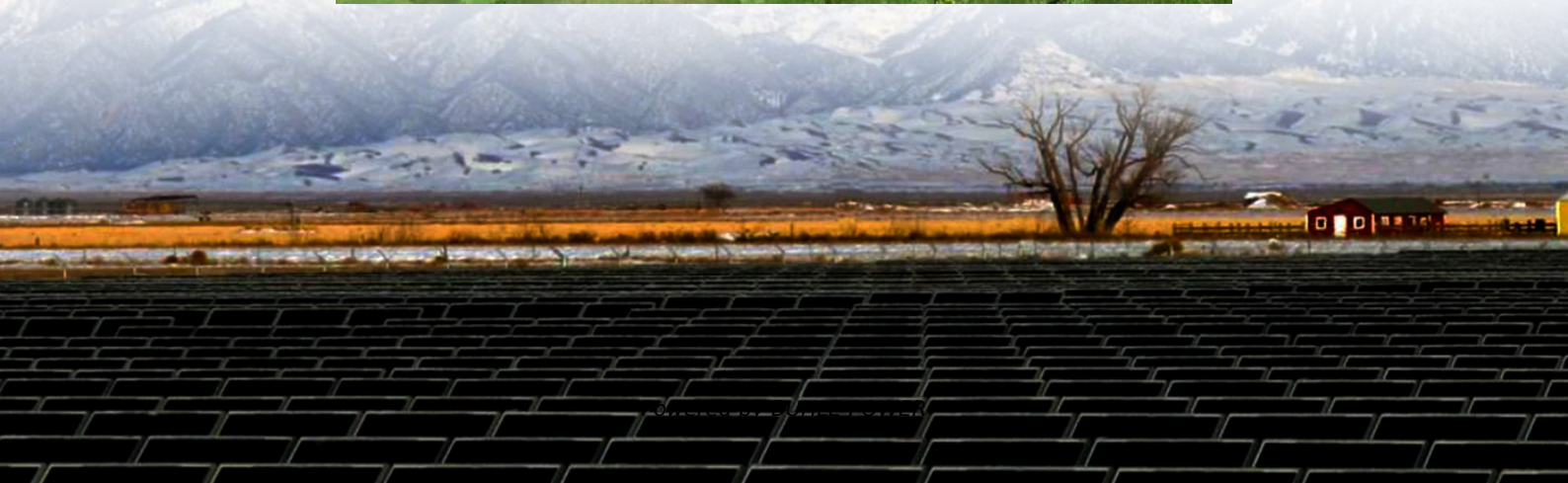


# **Weather Station Uses Dili Intelligent Photovoltaic Energy Storage Container Fixed Type**





## Overview

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Can a solar-powered weather station be used for agriculture?

This study presents a novel, low-cost smart solar-powered weather station that utilizes internet of things technology and is tailored to the needs of agriculture. The weather station records a range of agricultural data, including air temperature, humidity, air pressure, wind speed and direction, solar radiation, and precipitation.

How do smart weather stations compare and evaluate weather data?

In order to compare and evaluate the data received by smart weather station, data was also taken from two national weather stations near the system's test site and the following variables were evaluated: air temperature, humidity, relative pressure, wind speed, wind direction, solar radiation and precipitation. Fig. 12.

How accurate is the intelligent weather station?

The intelligent weather station precisely measures the most important weather parameters for agriculture. The system accurately records solar radiation with a high  $R^2 = 0.9895$ , ensuring reliable data. Humidity measurements show high accuracy with  $R^2 = 0.9995$  compared to nearby stations.

What is a digital weather monitoring station?

A weather monitoring station that provides digital data usually consists of several sensors that detect weather phenomena and a processing unit that integrates all monitoring systems. Digital weather stations can be divided into personal stations and professional stations.



## Weather Station Uses Dili Intelligent Photovoltaic Energy Storage C



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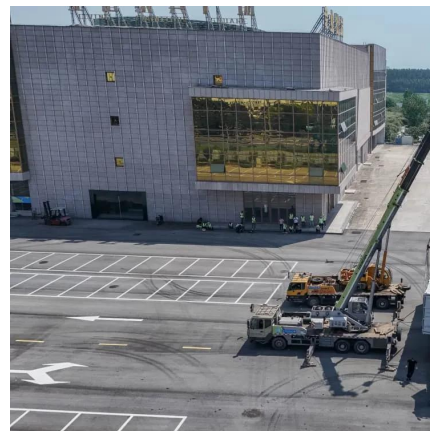
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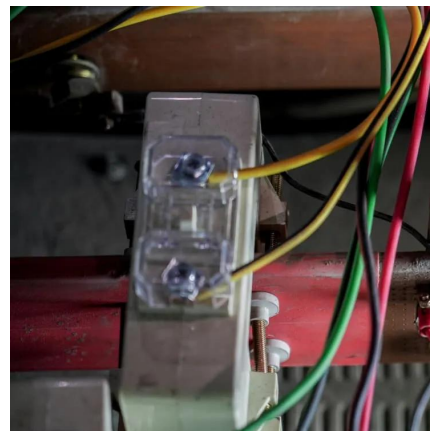


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