

LabVIEW Solar Tracking Control System





Overview

How are the parameters of solar panel measured?

The parameters such as voltage, current, light intensity of solar panel are acquired continuously. Voltage is measured by using voltage divider, current is measured by using acs712 and light dependent resistors (LDR) is used for capturing maximum light source and the acquired data are processed in Arduino and send to LabVIEW.

What is a block diagram in LabVIEW ads1115?

The complete LabVIEW block diagram is shown in the screenshot given below. All 4 channels of the ADS1115 module are used for data collection. Every channel is read with a 100ms delay. A close-up view of the part of the block diagram is as follows from where current and voltage calculation can be observed very clearly.

How does ads1115 work in LabVIEW?

The load is represented by an LED. The charge controller is shown by a comment block. The complete LabVIEW block diagram is shown in the screenshot given below. All 4 channels of the ADS1115 module are used for data collection. Every channel is read with a 100ms delay.



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AUTOMATED SOLAR PANEL POSITIONING AND ...

Jul 24, 2025 · Real-time monitoring and control are provided through a LabVIEW-based interface, enabling users to track key metrics such as voltage, current output, battery status, and panel ...

Automatic Solar Tracking and Monitoring System Using LABVIEW ...

Automatic Solar Tracking and Monitoring System Using LABVIEW Ansar Jamal¹, Sebin Francies Bivera², Najma Nazreen³, Sanjana George⁴, Saraswathy K⁵, Assistant Professor, Dept. of ...

Monitoring of Solar cell and Damage Detection Using LabVIEW

Jan 25, 2023 · In this paper, LabVIEW is used to monitor the real-time data of solar cell, implement solar tracking and damage detection using LabVIEW. In this article, a solar panel, an Arduino ...

Real Time Monitoring And Controlling Of ...

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Real Time Monitoring And Controlling Of Solar Panel ...

Aug 26, 2019 · Preethi G, Lavanya D, Sreesureya V, Boopathimanikandan S Abstract: This paper aims at the development of real time process to track the sun position and maintain maximum ...

Wireless Solar Tracking System With LabVIEW and Arduino

Dec 3, 2025 · The solar tracking works on the principal of astronomical equations. With the help of the equation it calculates the coordinates of the sun by calculating the elevation and azimuth ...

GitHub

Jun 5, 2025 · This project compares the power output of a fixed solar panel and a tracking panel that adjusts its angle using solar angle equations. LabVIEW was used to read voltage data via ...



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Automatic Solar Tracking and Monitoring ...

Automatic Solar Tracking and Monitoring System Using LABVIEW Ansar Jamal¹, Sebin Francies Bivera², Najma Nazreen³, Sanjana George⁴, ...

Automatic Solar Tracking and Monitoring System Using ...

Nov 30, 2020 · [3] J. Rizk and Y. Chaiko, "Solar tracking system: more efficient use of solar panels," World Academy of Science, Engineering and Technology, vol. 43, pp. 314-319, 2008 ...

(PDF) Automatic solar Tracking and Lighting ...

Mar 10, 2015 · The proposed system uses a DC geared motor to accomplish solar tracking. In addition, an automatic solar lighting system is also ...

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