# Based on PLC control of solar tracking system

What is a solar tracking system?
This is the true position of the sun as seen from an observer on the surface of the earth. From fig. A solar tracking system refers to a system which is able to track the movement of the sun throughout the day for maximum energy efficiency and have it at a perpendicular angle to the plane of the solar panel.

How is the solar tracking process governed and controlled?
In this paper,the tracking process is governed and controlled by programmable logic controller (PLC)where two stepper motors are used to guide the motion of the solar panel in azimuth and elevation angle. The azimuth and solar altitude angles of sun were calculated at 24.3636ºN,88.6241ºE (Rajshahi,Bangladesh).

What is solar tracker control architecture?
SIMATIC S7-1200 Solar Tracker Control Architecture (Tang, 2014) This process is conducted through the solar tracking and the calculation of the alignment for single axis tracking libraries, depending on whether the system is single or dual axis. The Siemens SPA (Solar Position Algorithm) calculates the azimuth and zenith.

Why should you use Siemens plc for automatic solar tracking?
CPU and the programming tools allow users to design autonomous industrial processes and solve automation problems. Based on this specific application and its user-friendly programming tool and troubleshooting solutions,Siemens' PLC hardware and software were found to be the right fit for the automatic solar tracking application in this project.

It is well known that concentrating solar power and concentrating photovoltaic technologies require high accuracy and high precision solar tracking systems in order to ...

A dual-axis solar tracking system with a novel and simple structure was designed and constructed, as documented in this paper. The photoelectric method was utilized to perform ...

The objective of this paper is to develop an automatic solar tracking system where solar panels will keep aligned with the Sunlight in order to maximize in harvesting solar power. ...

PV panel Length, l=0.1651m Width, a=0.1397m Thickness, t=0.0089m Programmable Logic Controller (PLC) is a special computer device used in industrial control ...

In this paper, automatic solar tracking system is implemented using DELTA PLC which tracks the sun more effectively with its simple ...

PV panel Length, l=0.1651m Width, a=0.1397m Thickness, t=0.0089m Programmable Logic Controller (PLC) is a special computer ...

The solar tracker is used to orient various payloads toward the sun in order to trap the energy

to the maximum extent. Payloads can be ...

A sensor-based feedback controller compares sunlight intensity to a threshold, driving a motor to rotate the dual-axis tracking motor and turn the PV panel toward the sun. ...

A solar tracking system refers to a system which is able to track the movement of the sun throughout the day for maximum energy efficiency and have it at a perpendicular angle to the ...

This study describes a system that uses the Programmable Logic Controller (PLC) to control the motion of a two-axis sun-tracking surfaces. The ...

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