

---

# Plc solar automatic tracking system machinery

How automatic solar tracking system is implemented using Delta plc?

In this paper, automatic solar tracking system is implemented using DELTA PLC which tracks the sun more effectively with its simple and precise control structure in all environmental conditions. The automatic solar tracker maneuvers solar panel towards the sun to extract maximum energy during the day time.

What is automatic solar tracking?

The main aim of any automatic STS is to maximize the amount of sunlight that the solar concentrator or module will receive, resulting in the maximization of the overall energy outputs of the system. Solar tracking can be performed in two ways: single-axis tracking and double-axis tracking.

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.

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.

The target of this project is to research the possibility of building an algorithm-based sun tracking solar panel system, compact enough to study its efficiency and value against a ...

Design and Implementation of PLC-Based Automatic Sun tracking System for Parabolic Trough Solar Concentrator 2 Jinping Wang<sup>1,2</sup>, Jun Zhang<sup>2</sup>, Yanfeng Cui<sup>2</sup> and ...

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

Future Scope: Single axis solar tracking system prototype model for automatic tracking needed to be implemented in future work. Interfacing between computer & prototype ...

In this paper, automatic solar tracking system is implemented using DELTA PLC which tracks the sun more effectively with its simple and precise control structure in all ...

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 ...

Currently, research into automatic solar trackers is on the rise, as solar energy is abundant in

---

nature, but its use in a highly efficient way is still lacking. This paper provides a ...

The PLC-based control system provides a reliable and automated approach to solar tracking, offering benefits such as improved energy efficiency, reduced reliance on fixed-tilt ...

An automatic light tracking system based on PLC is proposed to make photovoltaic panels track solar illumination in real time, so as to improve the energy generation ...

This paper presents a new design of a Three-axis solar tracking system which is based on Programmable Logic Controller (PLC). The automatic tracking system of solar ...

Web: <https://hakonatuurfotografie.nl>

