Design of solar power generation system based on PLC

The article describes the operational principles, developed based on functional modules of the programmable logic controller, ensuring maximum possible use of solar energy in this continuous ...

Abstract: Solar photovoltaic (PV) modules are the key components of PV systems, in order to enhance the security level of PV modules detection and power generation operation reliability. A novel solar ...

This research paper presents the design, implementation, and performance evaluation of a single-axis solar tracking system (SASTS) employing Siemens programmable logic controller (PLC) ...

The solution is based on ABB"s uniquely efficient concept for PV power plants, an approach that combines a high level of customization, rapid turnkey delivery and system optimization technologies ...

A new working of the PV system is proposed in this paper. The general solar power generation system can intelligently switch into three work models by the programmable logic controller, ...

The objective of this mini project 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.

The version described in the thesis implements a Siemens PLC based solution, relying on a tracking algorithm to locate the position of the sun; more specifically, the configuration of the linear motors ...

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 radiation is done on ...

1. Introduction. The process of the development of autonomous electric power supply systems, based on photovoltaic panels, is hindered by problems related to the selection of the best equipment, which ...

Therefore, this paper is researching a photovoltaic power generation grid-connected control system based on PLC. In the hardware part, PLC is used to complete power generation...

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