URN etd-0407109-183703-150
Author Pham Viet Hung
Author's Email Address No Public.
Statistics This thesis had been viewed 71 times. Download 45 times.
Department
Year 2006
Semester 2
Degree Master
Type of Document Master's Thesis
Language zh-TW.Big5 Chinese
Title Design and Investigation of Two-Axis Automatic Solar Tracking System
Date of Defense 0000-00-00
Page Count 75

Keyword
Solar energy; Two-axis solar tracking system; Open loop control; Microprocessor (AVR); Stepper motor; Photo-Sensor

Abstract
The purpose of this research is to design and build an automatic solar tracking system for PV panel so that the efficiency of PV modules can be enhanced and solar energy can be used effectively. First, the most suitable technical solution for the solar tracking system is proposed. Then, the proposed solar tracking system was built and the performance of this system was characterized. Finally, the affect of using the automatic solar tracking system on output power was experimentally investigated.
The results indicated that our automatic solar tracking system which uses proposed sensors, microcontroller and stepper motors is simple, low-cost, and efficient. The measured variables of our automatic solar tracking system were compared with those of a fixed PV panel. The output power of our automatic solar tracking system has an overall increase of about 7 %.
Advisory Committee Lin Keh Moh - advisor

Files etd-0407109-183703-150-001.pdf

indicate access worldwide
Date of Submission 2007-07-20