

البحث السابع

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المحتويات:

- بيانات عن البحث (مكان النشر، التصنيف،.....الخ)
- ملخص البحث باللغة الإنجليزية
- ملخص البحث باللغة العربية
- نسخة البحث المنشورة

بيانات عن البحث السابع

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No of Authors	3	عدد المؤلفين
Authors Names	Ammar Bakry, M. Said and Saber. M. Saleh	أسماء المؤلفين
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ملخص البحث السابع

ملخص البحث باللغة الإنجليزية :

Our energy needs increase day by day, so the search for a renewable source of energy has become a necessity of life. Photovoltaic solar energy (PVSE) is one of the most important sources in our community because it is clean and renewable. This paper discusses improvement the production energy from this source by using practical design of single axis solar tracking system. The designed solar tracking system used microcontroller Arduino Mega, real time clock (RTC), limit switches and servo motor. The mechanism of the designed solar tracker is applied by moving the solar structure to track the sun on better angle to be perpendicular to the sun to get the most energy from it using the RTC and limit switches. Comparison between solar tracking system and fixed system reveal that the system is more economic and larger power production. This tracking system is designed and tested in real environmental in Qena governorate in Egypt. The 10 kW solar power plants are used as a case study for this system. Comparison between the proposed solar tracking system and the solar fixed system for the same demand is performed using PVsyst software. Also, economic viability between the two systems is produced.