عنوان مقاله:

Feasibility Study of Solar Water Heater System and Ambient Heating for the Laboratory Complex of Ahvaz Branch of Islamic Azad University with Valentin T*SOL Software

محل انتشار:

مجله سیستم های دینامیکی کاربردی و کنترل, دوره 4, شماره 2 (سال: 1400)

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نویسنده:

Pouyan Ghanbari - *Department of Electrical Engineering, Izeh Branch, Islamic Azad University, Izeh, Iran*

خلاصه مقاله:

Iran is located between the orbits of ۲۵ to ۴۰ degrees north latitude and is located in a region that is among the highest in terms of solar energy among the parts of the world. The amount of solar radiation in Iran is estimated between ۱۸۰۰ to ۲۲۰۰ kWh per square meter per year, which is higher than the global average. In Iran, on average, more than ۳۰۰ sunny days are reported annually, which is very significant. This energy can be used in different ways, such as electricity generation, heating and cooling, fresh water production, hot water supply, etc. In this paper, using T*SOL software, a solar heating system (including solar water heater, space heating) has been designed for laboratory complex No. ۳ of Islamic Azad University, Ahvaz Branch and has been simulated for different time periods such as annually.

کلمات کلیدی:

T * SOL software, PV System, Solar Energy, photovoltaic, Solar water heater