

Abstract

In the present work ,a simulation method is used for designing of a solar water heating system. An integrated transient simulation program is built up for simulating the Iraqi solar house heating system using TRNSYS as a design tool.

The simulation is modeled for other virtual solar heating systems similar to the Iraqi solar house. The results obtained were used to develop a general design procedure for solar heating systems in Baghdad.

Using the design charts and TRNSYS as a design tool simplifies the designer's task for predicting the long - term heating energy supplied from a solar collector array .