




THERMAL ANALYSIS OF A SOLAR HOUSE

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“ I declared that this thesis is the result of my own work except the ideas and summaries which I have clarified their sources. This thesis has not been accepted for any degree and is not concurrently submitted in candidature of any degree.”

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ABSTRACT

This project is mainly designed to study the thermal analysis and also the energy efficiency of a solar house. For this project, a selected solar house, which is located at Solar Energy Research Park in University Kebangsaan Malaysia (UKM), Bangi has been chosen. The main objective of this project is to determine the optimum design and then the energy efficiency for a solar house in Malaysia. This project uses information of this original solar house to simulate new design using software named ENERGY-10. The results will be analysed, simulated and any area of improvement will be suggested to improve the original design of the solar house. The data is processed and simulated by using this software and will be presented as useful information to determine all the possibility of the model that are desired in the future. The overall design of a solar house should maximise the available free energy, ensuring occupant comfort and a pleasant living environment. Hopefully solar house will become a reality and fully implemented in the future.

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