

ABSTRACT

This project paper is to conduct a study on the effect of climate change on the air conditioners in terms of the needed of using air conditioning during a hot day. Basically the aspects that will be focused is the roofing system of the house and how the roof material can contribute to the cooling process of the heat gain by the roof itself. Cooling is one of the major concerns in building tropical house. 70% of the total heat gain by the house is through the heat gain of the roof.

The objective of this project is to determine the effect different type of roof on heat transfer into residential house, to determine the effect weather change to the energy consumption and to analyse the production of CO₂ in residential building.

In order to achieve this objective, a simulation will be done by using Energy plus Software and Design Builder to make a comparison in between the type of roof and its effect to the temperature inside the house. Based on the simulation, analysis will be done to analyse the energy consumption in residential building since it contribute to the global CO₂ emission.

In a nutshell, that different roof type has different heat transfer from the roof to the house building and energy consumption in a building depends on the weather condition at that place

CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.

(NURUL MAIZATULAKMA BINTI MUSTAFA)