

DESIGN OF AN ENERGY EFFICIENT AND ENVIRONMENTAL FRIENDLY HOUSE

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ABSTRACT

To design a house that is both energy efficient and environmental friendly for a tropical country. A lot of different prospects of a house has to be carefully looked into. From the design factors of the house, two the electric systems as well as the water systems of the house, every prospects of the house requires careful study and analysis so that we can come out with a design which can perfectly suit our project title which is to design a house that is both energy efficient and environmental friendly for tropical countries. In this project, we shall discuss ways to conserve electricity and water and how the design of the house helps s in achieving that. Electricity is conserved through the use of solar energy both for producing electricity as well as water heating. An automatic on/off lighting systems and a solar tracking system are also design for our project for preventing waste of electricity as well as to increase the efficiency of our solar electric systems, water is conserved thru water harvesting both of rainwater as well as groundwater. Finally, the design, orientation, ventilation as well as building materials used for building the house are carefully design and selected with an environmental and energy efficient house is mind.