MINIMIZING ENERGY USAGE IN THE CLASSROOM

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ABSTRACT

This paper present the simulation of better devices and equipments in school such as electronic ballast, daylight detector, Low-Emission glass and other devices which have been created in order to minimize the energy usage in school. Minimizing the energy usage in the classroom is to create the healthy environment for students and to enhance knowledge and awareness in preserving better future for them. The main focus of the paper is to minimize the major power consumption which mostly involves lighting and air conditioner. Software e-Quest proved detailed analysis of building design technology using today most sophisticated building energy use simulation techniques. As a result, to minimize of electric consumption in the classroom is successfully obtained.

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CHAPTER 1

INTRODUCTION

1.1 GENERAL

Nowadays, university across the world try to satisfy the standards of green building (Green Building Index) in order to implement and develop energy efficient campuses thus creating a better future for next generations[1] .

Green building ratings began to be developed in the 1990 with BREEAM UK in 1990 and later LEED USA in 1996 being the better known ones[2, 3] . Malaysia's Green Building Index (GBI) will be the only rating tool for the tropical zones other than Singapore Government's GREENMARK. GREENMARK was first launched in 2005. In April 2008, it became mandatory for all new buildings or works on existing buildings exceeding 2,000m^2 in floor area to achieve a minimum GREENMARK Certified rating in Singapore. While GREENMARK's operational parameters are within the tropical climate, its scoring priorities are very much customized for the current state of Singapore where a lot of priority is given to energy and water efficiency scores. In addition its public transport network is also already in place and thus little priority is given to this in the ratings. Malaysia differs markedly in these areas and thus understandably our rating priorities should be like-wise customized to suit both to our climate and also the current state of our country's development and existing resources.