

**CENTRE OF STUDIES BUILDING SURVEYING  
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING  
UNIVERSITI TEKNOLOGI MARA**

**ENERGY EFFICIENCY THROUGH GREEN IN MALAYSIA**

MOHD ZUL HAFIZIE BIN MOHD KHAIDZ  
(2010215428)

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## **ABSTRACT**

This is a summary from the previous works on the energy efficiency for green and conventional design which is more on design strategies. This design strategy was developed from the overseas where it is used a high technologies on building to reduce energy used. Since there were so many promoted from the effectiveness on green building, many countries have applied the green building to reduce energy consumption in building.

This study has been supported by the Ministry of Energy, Green Technology and Water, Malaysia or also known as KeTTHA and the Energy Commission Malaysia and the conventional buildings are Plaza Perangsang & Telekom Malaysia Berhad as the case study. From the study, energy efficiency's concept is one of the elements which helping to reduce the use of electricity consumption by maximizing the use of natural daylight as well as the use of good ventilation. This concept will be explained in detail in chapter 2.

Meanwhile in chapter 5 is study about design strategies on building that is divided into two types know as passive and active design. Through these design strategies, we found that both elements play an important role in building energy efficiency. Today, our country still at the introductory stage and experimental process compared to other countries that already use green technology to reduce energy consumption. That is why, this chapter is also combines with recent practice/technologies of energy efficiency that was used in green building and common design practice in our country.

<b>LIST OF FIGURE</b>	<b>PAGE</b>
2.1 Figure conceptual of green building	11
2.2 Figure Material Efficiency	18
2.3 Figure Water Efficiency	19
2.4 Figure Building envelope design	25
2.5 Figure Spaces planning and layout	28
2.6 Figure Green Area	30
2.7 Figure Photovoltaic panel	35
2.8 Figure Environmental loads of building envelope	40
2.9 Figure Green Area	43
2.10 Figure LED light Tube	47
2.11 Figure LED Par30 Lamps	47
2.12 Figure Photovoltaic	48
4.1 Figure Diamond Building	63
4.2 Figure LEO Building	67
4.3 Figure Plaza Perangsang Building	70
4.4 Figure TM Building Shah Alam	72
5.1.1 Figure Atrium Daylight Design	77
5.1.2 Figure Roller Blinds	77
5.1.3 Figure Variable air bodies	79
5.1.4 Figure Photo sensor/occupancy sensors	79
5.1.5 Figure photovoltaic	81
5.1.6 Figure Fixed blinds	83

# CHAPTER 1

## INTRODUCTION

### 1.1 GENERAL

Construction industry has undergone a rapid transformation in terms of construction methods where it develops according to the current circulation. Which is previously had been used in conventional building construction and has undergone various transformations to green building technology. The green building also known as sustainable building, which is the practice of building natural interest with environmentally responsible and resources efficient throughout a building's life-cycle from design, construction, operation, maintenance, renovation up to the demolition. (Yee, 2011)

The main purpose of this technology is to reduce the impacts on the environment and human health as a consequence of rapid development. Green building is new technology that not only be beneficial to the environment, but also turn a profit to the economy. This is seen significantly through conservation of energy resources used. In a nutshell, the green building reduces operating costs and conserves the environment. In additional, it also can lowering operating costs thus increases value of the building. (Yee, 2011)

Green buildings are also designed to reduce the overall impact of the built environment on human health and the natural environment by efficiently consuming energy, water, and other resources. Meanwhile, green buildings protecting occupant health and improving employee productivity and reducing waste, pollution and environmental degradation.