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**THE IMPLEMENTATION OF GREEN ELEMENTS IN  
HOSPITAL BUILDING**

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of the requirement for the award of  
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## **ABSTRACT**

Sustainable construction has taken on some new steps to stimulate green building practice. Green hospital is a sustainable building that throughout its life has minimal impacts on environment. Green building elements basis are site planning and design, community, indoor air quality, energy efficiency, materials, waste management, water use and marketability. In Malaysia, level of awareness about green hospital is still low and they have minimum understanding on green elements and sustainable design. On the other hand, hospital building is one of the sectors that contributes to the highest percentage of carbon dioxide and chemical waste to the atmosphere. By implementing green elements in hospital building, it can reduce the negative impact toward environment. Therefore, this study aims to identify the green elements necessary in hospital building in order to ensure the sustainability of hospital building. Three objectives have been set which are: (i) to identify the green elements that necessary in hospital building, (ii) to determine the challenges in adopting green formation in hospital building, (iii) to suggest few strategies overcome the problems faced in implementing the green hospital. The analysis use for this study is descriptive research design by using quantitative method. 100 set of questionnaires were distributed among practitioners who involved in hospital construction in Kuala Lumpur. The result revealed that materials is the crucial elements of green hospital with 4.76 mean score. All the 8 elements were acknowledged as the necessary green elements in hospital building. The main issue regarding green hospital that is highlighted is high initial cost. The highest recommendation to enhance the implementation of green formation in hospital building is by providing specific website for database and the data must be comprehensive which it will ease the practitioners to refer and get an accurate and legit database information. It is followed by incentive by government and private sector or any financial institution to start the construction of green hospital. As a recommendation, the government should introduce capital incentives that will ease the burden of developers and encourage them to involve in the green hospital project.



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# CHAPTER 1: INTRODUCTION

This chapter covers the outline of the overall research including the introduction, problem statement, aim and objectives, scope of study, limitation of study area and research methodology.

## 1.1 INTRODUCTION

Building is currently undergoing a green revolution (Gou, Prasad and Lau, 2013). A variety of green projects in the Malaysian construction industry have recently been exposed to the idea of sustainable construction. Sustainability therefore considered as a dynamic topic (Ragheb, El-Shimy and Ragheb, 2016). This is an important concern since it covers almost every living thing on the planet. In terms of green concerns, buildings have a significant contribution to make in relation to the green issue (Wong and Fan, 2013).

Green building is a sustainable building that has minimal environmental effects over its entire lifecycle. The term 'green building' can also be characterized as a structure that contributes in every respect to the efficient use of energy and resources. This involves manufacturing of construction materials and the design, use and subsequent demolition of a building at all stages from new buildings to existing or retrofitting (Darko and Chan, 2013). On the same echo, green building refers to the act of designing, constructing besides adding to using environmental and resource efficient procedures for a variety of construction activities (Kamarudin, Joachim, Aliagha and Ufere 2011) and simultaneously preserving resources, such as property, water and materials, environmental protection and pollution reduction. In brief, green buildings are described as a sustainable building (Hwang and Tan,