

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

**A STUDY OF COMMON DEFECT ON PRECAST CONCRETE  
BUILDING**

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## AUTHOR'S DECLARATION

I declare that the work in this dissertation was carried out in accordance with the regulations of University Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This dissertation has not been submitted to any other academic institution or nonacademic institution for any other degree or qualification.

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## ABSTRACT

Industrialised Building System (IBS) has been introduced in Malaysia since early 1960s when Ministry of Housing and Local Government of Malaysia visited several European countries and evaluate their housing development program (Thanoon et al, 2003). In the 1960s, precast concrete system was often misinterpreted with negative meaning. The lack of design such as the need for wet toilets and bathrooms lead to problem of leakage. Besides that, the most common problems were the connection between the beam to column and column to base (Rahman and Omar, 2006). In this study, the first objective is to identify the defects on precast concrete building. Then, the second objective is to determine the factors contributing towards the defects occurred. Lastly, the third objective of this study is to recommend the approach that should be taken to prevent the defects occurred. From the research, the defects occurred only minor defects and no major defects. The researcher found that mostly the defects occur is hairline crack, either at wall, column and jointing between the column and beam on both case study area. Besides that, the other defects occur is peeling paint, spalling, dampness, fungi and others. It is very important to the stakeholder such as easy to the stakeholder identify the defects occurred on that building. Besides that, the stakeholder easily to classify the factors that contribute the defects to ensure and prevent the defects may occur in future.

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 STUDY BACKGROUND**

The developments of economies that have been reported is competing in improving the quality of construction products and afford to increase the productivity of the sector by using a greater mechanisation, prefabrication technology and to upgrade the skill of workers. In Europe and US, the precast concrete was created in the early 1970s by construction companies due to demand of housing. The prefabrication of building was the best method that has been created after the world war II. In order to fulfil the demand of housing, the US government has explored several prefabrication system in the early 1970s