



UNIVERSITI TEKNOLOGI MARA

**ELECTRICAL INSTALLATION
CHALLENGES IN STEEL FRAMING
SYSTEM: CASE STUDY AT DISTRICT OF
KUALA MUDA**

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ABSTRACT

Industrialized Building System (IBS) have start begin in Malaysia in early years 1960s and it is known as the precast concrete or prefabricated concrete. The Industrialize Building System (IBS) is prefabrication concrete that will involves the manufacture of components such as wall off site that are ready for the installation and need an extra work of installation on the site (CIDB, 2006). Introducing the IBS method is not to compete the conventional method but it is to modify and enhancing the better process of the construction industry in Malaysia. IBS system using a modern and innovative methods to construct a building (Ali, 2012). IBS is a system that have provide a short period of construction, lower cost of building materials and also the manpower in the construction in period of labour shortage (Dato' Ir Ahmad `Asri, CIDB, 2006). The IBS need the specialized contractor in order to install it. But in Malaysia, we lack of specialized contractors especially the electrical and mechanical contractors. Most of the existing electrical and mechanical contractor are lack of knowledge and skills (Kamar.et.al, 2007). This becomes one of barriers in implemented the IBS. In this study, the main objective is to identify the level of competency amongst the electrical contractors. The second objective is to identify the challenges and issues on the installation the electrical system in steel framing system. The last objective is to identify the solution that use by the electrical contractor in solving the problem. In order to achieve the objectives of the study, the research study have conducted the online questionnaire survey with target the respondents which consists of the electrical contractor of IBS construction. The research study will offer the detail finding related to the study in the conclusion and recommendation for the future research.

Keywords: Industrialize Building System (IBS), steel framing system, electrical installation, challenges

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CHAPTER ONE

INTRODUCTION

1.1 RESEARCH BACKGROUND

Nowadays, construction industry is one of important sector and it have growth rapidly in Malaysia. As growing the construction industry, a new system had been introduced in Malaysia since 1963s. The original name of the Industrialised Building System (IBS) is the precast or prefabricated concrete. The new construction system known as Industrialized Building System (IBS) where it is an advance technology in construction industry and rapidly developed in Malaysia. The new advance technology is one of improvement of productivity and also quality of the construction industry. The IBS in Malaysia begun when Ministry of Housing and Local Government of Malaysia visited some of European countries and evaluate the construction of the housing program there (Thanoon et. al., 2003). Following the visited in 1964, the government had launched the first precast concrete project to speed up the time, create affordable and also quality of buildings.

The Construction Industry Transformation Programme (CITP) 2016-2020 is a strategic collaboration plan with the key stakeholders in the industry which including the Ministry of Works (MoW), the Department of Public Works, the Ministry of Urban Wellbeing, Housing and Local Government, and the Construction Industry Development Board (CIDB) to transform the construction industry into a modern highly productive and also sustainable one (CITP,2017a). IBS has been mandated for use in government projects worth up to RM 10 million and higher since 2008, with a minimum IBS score of 70. It was announced in 2018 that the use of IBS could also be compulsory by 2020 for use in private projects worth up to RM 50 million and above with a minimum IBS score of 50 million and above.

According to CIDB (2006), Industrialized Building System (IBS) is prefabrication concrete that will involves the manufacture of components such as wall off site that are ready for the installation and need an extra work of installation on the site. The