UNIVERSITI TEKNOLOGI MARA PERAK

BRANCH

LIGHTWEIGHT HEAVY-DUTY IBS WALL PANELS

MOHAMED NOORLYNASHRIQ BIN MOHD NOORLAN

2019636946

Research Proposal

Bachelor of Science (Hons.) Construction Technology

Universiti Teknologi MARA

AUTHOR'S DECLARATION

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Name of Student:	Mohammed Noorlynashriq Bin Mohd Noorlan
Student I.D No.:	2019636946
Programme:	Bachelor of Science (Hons.) Construction Technology
Faculty:	Architecture, Planning & Surveying
Innovation Report Title:	Lightweight Heavy-Duty IBS Wall Panels
Signature of Student:	
Date:	

ABSTRACT

In general, Malaysia's construction sector is expanding rapidly. The pace of construction in Malaysia is very promising each year, especially in state capitals such as Kuala Lumpur, Johor Bahru and Penang. This building activity can enhance the country in the eyes of other countries. Inadvertently, it can show other countries that Malaysia is not left behind in the construction sector. In term of a new modern era, the construction industry has undergone an advanced of technology. The Industrial Building System (IBS) is not a new technology in our countries because the technology has been applied for quite sometimes. By this, the primary element used to produce the IBS wall panel has caused depleting of natural resource in matter of times. Due to this matter, this research has been proposed to overcome this issue and innovate something to reduce the usage of the primary element. This innovation is carried out by reducing the primary element and mixing the element with kenaf fibre as a replacement of it. Kenaf fibre has been choose as the replacement due to advantages. The kenaf fibre has a high tensile strength, lightweight and cost-effective that might be used for reinforcing in construction application. To facilitate its use, it is important to understand how the properties of kenaf fibers affect the performance of cement-based composites.

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