

**UNIVERSITI TEKNOLOGI MARA
PERAK BRANCH**

PORTABLE FLOATING HOUSE

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Bsc

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AUTHOR'S DECLARATION

I declare that the work in this innovation project report was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This topic has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

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ABSTRACT

Portable house is an off-site home that manufactured in the factory according to particular design and send to the site for jointing and assembly. In additionally, portable house commonly used lightweight material and automatic systems for mobilisation and workable transportation which is easy to install and handle. Therefore, Malaysia is a country where the climate is equatorial and received humid and rainy throughout the year. Rainfall is abundant and frequent throughout the year and caused by the monsoon regime because position of Malaysia is near and surrounded by the sea. As an effect, heavy rainfall may contributed to the floods especially in east coast of Peninsular Malaysia. Floods will causing losses of life and damages the house. The main aim of this study is to develop an innovation concept of floating portable house in East Coast Malaysia. This study has three objectives which are to review the concept of floating house, to developed an innovation portable floating house concept and last to determine the marketability of portable floating house in East Coast Malaysia. This study is conducted by research on literature review from legitimate articles to study the concept of portable house, floating house and suitability material to build portable floating house. Furthermore, a simulation is created by using SketchUp and Revit software to visualized the idea and the concept of portable floating house. The floating portable house has the flotation device which allows the house to sit just above the ground like a normal elevated house when dry season and the house rise up and float safely on the water when floodwater started to rise which is it help to avoid the house from sink. Besides, an online questionnaires also been distributed to the citizen in Kelantan and Terengganu to evaluate the marketability of the portable floating house. Fortunately, the respondents highlighted comment that the portable floating house should be commercialized in the marketplace because its give benefits to people. In a nutshell, the portable floating house has value in marketplace as to prevent floods from damages house.

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