

**PROGRAM OF QUANTITY SURVEYING  
DEPARTMENT OF BUILT ENVIRONMENT STUDIES AND  
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**THE COMMON DEFECTS ON FLOATING MOSQUE:  
A CASE STUDY BETWEEN TWO FLOATING  
MOSQUES IN PERAK**

Dissertation submitted in partial fulfilment  
of the requirement for the award of  
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**PREPARED BY : NUR HANANI BINTI HAMZAH (2019801706)  
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## **ABSTRACT**

Nowadays, the existence of floating mosques are growing in Malaysia as tourism purpose. Besides that, floating construction also will give new advantages to the construction industry as the method of construction are improving day by day. The structure of the floating mosque is the most important aspect to be focused on because the performance of the building will fully depends on its structure. However, there are some problems arisen that are related to the structure of floating mosque throughout its lifespan in serving users. The purpose of this research is to study the defects of the floating mosque that affects its performance towards its end users. The objective of this study is to identify the common defects of the floating mosque, to find the factors that influence the occurrence of the defects and to suggest solution in preventing defects from occurring on floating mosque in the future. This dissertation is mainly focused on the common defects that occur on floating mosque that located near the sea. The method used in this research is a qualitative method which are through semi-structured interview and observation. The semi-structured interview technique session will be conducted focused on the person who involve in the management of the floating mosque such as the committee of mosque's management. All the primary data were gathered from the respondents. This study has discovered that the climate will lead to the occurrence of the defects such as defects on the piping system, the staining of the painting, the cracks on the wall structure, the corrosion on the pile jointing and the leakage of the roof. This study perhaps may contribute to the understanding regarding the defects that may be occurred on the floating structure and the factors that contribute to the defects. The understanding towards the defect is important to make sure that the floating mosque are serving their function as well as its objectives. The finding of this research may help consultants, contractors to get a better understanding about the construction especially during the design stages to get a good structural result of the floating mosque or floating structure.

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# CHAPTER 1: INTRODUCTION

## 1.1 BACKGROUND OF RESEARCH

Usable land in metropolitan area especially will be more limited due to continuous land environment. Reclamation method for land source is regarded as environmentally negative and difficult to proceed in the future. In the improvement of income level among workers they intend to live and enjoy leisure activities near or on water. As there are few obstacles on the lake or sea, floating building can use solar energy, wind power and temperature of water easily. Therefore, floating building on water has been developed as a feasible and strong alternative, (Moon, 2013) (p.113).

The construction of floating building has grown to fulfil human needs, upgrade the construction skills and give ideas to future construction. According to (Mazlan *et al.*, 2015), floating mosque is intended to be constructed on the surface other than the ground. It is surrounded by water either by sea, river, lake or pond.

Mosque is a public place which is important among the Muslim society to do any religious event there. Mosque can also be an assemble place for society although different religion during emergency incident such as flood, earthquake and other natural disaster. The religious sanctuary for Muslims is generally known as the mosque. It's a centre for Muslim to perform their prayer, non-secular activity, organizing, educating and studying of Al-Quran, Hadith, and Sunnah as well as consolidating community occasions and seminars such as talks and weddings (Sharif *et al.*, 2019).