

DESIGN OF A MOVABLE AND EXTENDABLE BRIDGE STRUCTURE

Prepared by: Lee Chee Keong, Ong Ming Jun, Pong Guan Woei, Yap Che Chung

ABSTRACT

The title of the project is extendable and movable bridge. This project aims used to bring the convenience to all tourists and visitors to an island. Most of the time, the ships or boats often run aground when they tried to come on shore due to the changing of the tide. Thus, this movable and extendable bridge is able to extend a path from the shore to the boat and enabling people to get on and off from the boat.

This report consists of all the work we did to make this project successful. That includes the reason of choosing the project title, how we try to bring this idea to life, how we design the structure, the problem encountered during the process of doing the project and making the prototype and how we solve the problem.

Mainly, our report is based on body which includes an introduction, construction, problem encountered, result and analysis. Moreover, the reference used to father the useful information and data as the last.

Firstly, the introduction is a detailed explanation of the project. It contains the reason of choosing the title, the objectives of the project, the reason of choosing this title, the scope of the design and the mechanism and block diagram of the project.

The mechanism of the project can be divided by three parts; the extension of the bridge, the vertically motion of the bridge and the movement of the vehicle. The hydraulic system is the most important in the whole system. We use hydraulic system to extend the bridge and to make the bridge move vertically up and down, to make the vehicle which contains tracked wheel and conveyor belt to move.

Next, we have elaborated the problems encountered during the process of doing the project and making the prototype. The solution to solve the problem also stated.

Finally, a conclusion is made looking into overall objectives of the project and this is followed by the references at the end.