

**REDESIGN AN OLD BRIDGE TO CABLE STAYED BRIDGE  
(FOOTBRIDGE)**

**By**


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**Report is submitted as  
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## DECLARATION BY THE CANDIDATE

I, Hanafi Bin Mohamed Norman, 2002611632 confirm that the work is my own and that appropriate credit has been given where reference has been made to the work of others.

  
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(Hanafi Bin Mohamed Norman)  
MAY 2006

## **ACKNOWLEDGEMENT**

In the name of ALLAH, the most gracious and is most merciful, with His permission, the proposal of the project has been successfully completed. Praised to Prophet Muhammad, His companion and those who are on the path as what he preached upon, may ALLAH almighty keep us blessing and tenders.

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## **ABSTRACT**

The construction of bridges is an idea that is as old as mankind itself; it is something as simple as laying a log across a stream. Man has developed many different types of bridges throughout history, but the most remarkable among them is the cable stayed bridge. Cable stayed bridges date back to the early 1600's but was not produced on any significant scale until 1938. They are defined as those consisting of a continuous deck to which cables are connected diagonally from one or more towers supporting it directly. Their construction has since matured into a highly technical discipline, allowing for reliable means of transportation across seemingly impossible stretches of land or water. The development of the cable stayed bridge has allowed engineers to span distances longer than ever before been attempted, mainly because of its ability to withstand the forces of nature as well as support massive amounts of weight. Because of its cost effectiveness and relatively short time of construction, the bridge proves to be very economical. These factors contribute to sustainability in our society by maintaining consciousness of the environment in all aspects of the bridge. Through use of numerous examples, this paper will discuss the design, structure, and basic common principles of the cable stayed bridge, as well as the process of its construction. The bridge continues to constantly undergo change in development and design, paving the way for a remarkable future.

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