

ABSTRACT

This thesis describes an investigation into the economics of using the funicular shell as a suitable alternative to insitu and semi-insitu decking systems on marine structures, with particular application to docks.

In this study a review is first made of the theory of funicular shell and then their behaviour under different types of loading with particular emphasis on heavy load usage i.e. 50KN/m^2 . This is followed by the analysis and design of a typical panel that could be substituted on the ISCOTT Dock.

The thesis concluded with an analysis of the economics of various systems in comparison with the precast funicular shell. It is shown that the use of funicular shells is an economic alternative for decking systems in Marine Structures in Trinidad and Tobago.