



**STRESS ANALYSIS IN PROPELLER CAGE DESIGN**

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To have experience in Stress Analysis Technique using Finite Element Analysis Software (LUSAS) in designing a propeller cage so that it can withstand any accepted applied load.

## CHAPTER I

### INTRODUCTION

For the beginning, several modifications were made to design the model. There is no fluid drag generated and assuming static load applied to the model. Trial designs are designed and the estimation of the cross-sectional area is terminated by using Background length analysis. Then the trial models were analyzed by using finite element software LUSAS to get the stress analysis. The trial models are modified and

The problem arises from the company of North Port (M) Bhd. Klang having high maintenance on repairing the propeller blade. It is found that the damaged blade is caused by hitting an object to the blade during operation. It is more expensive to repair and to order the propeller cage from a supplier. Therefore it is more economical to make an own design of the propeller cage to solve the problem by covering the propeller by using a guard.



Figure 1.1 Model of Pilot boat