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MEC299

STRUCTURE DESIGN AND ANALYSIS OF GRP PAYANG BOAT

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ABSTRACT

The initial goal of the project was to design and analyse the structure of a GRP Payang boat. The Payang boat is a traditional wood-built boat used by fisherman. It's a boat that's been designed to fit the contour of its own body. The Payang boat was constructed using Glass Reinforced Plastic instead of wood in this project (GRP). Nonetheless, completing this project flawlessly poses numerous problems. That is due to the design of the boat frame structure, the high level of craftsmanship required, and the common usage of wood in boat construction. However, this challenge can be handled and the project's goals can be met. One of its goals is for the boat's design structure to boost its strength. Aside from that, it can successfully construct a good boat structure and ensure that the boat is stable and safe for passengers. As a result, there are phases to building a product that must be followed in order to achieve the ideal product. First and foremost, boat builders must study and learn about the boats that must be created so that they can design them using precise measurements. They can use software like PolyCad or Rhino to design the boat. They must then assess the boat's strength in order to ensure its safety. The builder will then be able to effectively design and construct the boat structure. The boat design structure will eventually be manufactured effectively. As a result of the anticipated outcome, the boat's strength can be increased by the use of GRP material and proper boat structure, resulting in a better Payang boat than previously.

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