

**UNIVERSITI TEKNOLOGI MARA CAWANGAN
TERENGGANU KAMPUS BUKIT BESI**

**MODELLING OF A STEEP NEAR SHORE WAVES AT
TERENGGANU COASTLINE DURING MONSOON
SEASON USING COMPUTATIONAL METHOD**

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DIPLOMA

January 2022

1.0 ABSTRACT

The project is about analysis of the Computational Fluid Dynamic (CFD) on foreshore waves at a steep near shore landform near Terengganu coastline during monsoon season.. This study aims to use a computational simulation tool to simulate foreshore waves in order to preserve people's safety at a steep near shore along the Terengganu coastline during the monsoon season and also to create a model of a steep near shore near Terengganu. CFD is the mathematical modelling of a physical phenomenon involving fluid flow and numerical solution employing computing capability. Computers are utilized to execute the computations necessary to mimic the fluid's free-stream flow and interaction with surfaces determined by boundary conditions. Pre-processing, numerical computing, and post-processing are the three stages of the computational setup in this work. ANSYS was used to create and construct the model's geometry as well as the grid. The computer simulation using the FLUENT solver was the second stage. Finally, the aerodynamics characteristics and flow patterns of the shape were derived during the post-processing stage. Then there's ANSYS Fluent. Based on the data acquired, this project will model a shoreline wave using Ansys CFD simulation. Ansys will be used to mesh and simulate the beach model after it has been produced. Result is the display of the wave simulation and also display result that were setup in the Setup in ANSYS. As a result of this final year project, the wave simulation and beach model has been completed in order to meet the project's goal of providing results or data for the safety of people doing activities at Pantai Kemasik beach during the monsoon season.

ACKNOWLEDGEMENT

Firstly, I wish to thank Allah for giving me the opportunity to embark on my Diploma and for completing this challenging and long period journey gracefully. My gratitude and thanks go to my supervisor which is Sir TS Mohammad Zamin bin Mohamad Jusoh for the support, patience, and ideas in assisting me for the project. Special thanks to my colleagues and friends for helping me with this project, finally, this dissertation is dedicated to my mother and father for the vision and determination to educate me dearly. This piece of victory is for the both of you.

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