ABSTRACT

This final project focuses on the simulation of water waves generated by the movement of the piston. The purpose of this simulation is to determine the frequency of the piston against the wave heights produced. This simulation uses methods Smoothed particle hydrodynamics (SPH) that run on software DualSPHysics. In this simulation scenario, there are 9 piston frequency varying with each scenario, there are two different piston frequencies. Analysis of the results of the simulation conducted to determine the maximum height of a wave of water based on the frequency of a given piston. Results of DualSPHysics visualized into Blender software to obtain simulation results close to real. Based on the simulation results can be obtained that the maximum wave height is obtained on the piston with a frequency of 1 Hz and $f1 = f2 = 1$ Hz with an altitude of 1,395 m.

Keyword : SPH, simulation, fluid flow, wave