Abstract

Dam is a construction that is built to withstand the rate of water into reservoirs, lakes, or recreational places, not infrequently the dam is used to drain water to a hydroelectric power plant. Dam itself as a building in the form of land, stone, and concrete, the dam is considered a dangerous building, because of the large impact caused if the dam is destroyed. This Final Project will discuss about the Shallow Water Equations (SWE) simulation with the implementation of the Lax-Wendroff Scheme in one dimension using Dam Break as a case study, this numerical method is one solution for hyperbolic partial differential equations. In this final project, the scheme will be simulated and it will be seen how much accuracy of the scheme is for case studies such as Dam Break.

Keywords: Shallow Water Equation, Lax-Wendroff, Dam Break.