

## ***ABSTRACT***

*Indonesia is a country that often experienced natural disasters, such as earthquakes, floods, landslides, droughts, volcanoes erupt and others. The recent floods that often occur in Bandung, precisely located in the area Pagarsih. The impact of the flood disaster is very diverse, ranging from material losses, environmental damage, and even casualties.*

*This study focuses on the flood disasters that often occur in Indonesia especially in the rainy season, namely by examining the simulation of the spread of flood by Cellular Automata method which is a systematic modeling of the physical system where space and time system used as discrete and the number of lattice consists of a set of values discrete is limited. Besides using the method, it is needed parameters to support this research such as rainfall, land, absorption and water discharge.*

*Based on the results of the test has been done making the simulation of the spread of flooding using Cellular Automata which can predict the ratio of the possibility of homes affected by floods and distribution patterns, so that the Threshold closest to the real state ratio is Threshold 0.4 with 19.5% simulation ratio value, which approaches the real state ratio 19% had 0.5% difference and simulated model made valid with error rate of 0.0263%.*

*Keywords: Simulation, Flood, Cellular Automata*