

ABSTRACT

Telkom University is a campus that has an area of approximately 40 hectares, has more than 10 multi-storey buildings and has more than 20,000 active students. Anticipating the occurrence of disasters such as earthquakes and fires Telkom University should have an assembly point as a gathering place in the event of a disaster.

In this final project the authors make an application and analyze dijkstra in determining the evacuation path on the campus of Telkom University. This application function for direction or directing to reach the assembly point at the time of evacuation when a disaster occurs. Application display in the form of an arrow direction pointing toward a node that has been determined by the system, the node connects between the user position with the safety point position. There are 108 connected nodes that connected on graph that is used as a map for processing systems. Dijkstra's algorithm is chosen as the method used, in this case Dijkstra algorithm serves as a determinant of the shortest path that can be passed by students to reach the assembly point by considering the initial position and the assembly point that is owned by Telkom University campus.

Based the results of the tests, Dijkstra algorithm works well in the selection of the shortest path from the user position to the safety point location.

Keywords: Assembly Point, Dijkstra Algorithm