ABSTRACT

Fire is a disaster caused by a freely-moving fire that can cause human lives in danger, damage to buildings and the surrounding ecology. Fires can be a serious problem if not treated quickly because it will cause huge losses. Therefore, the role of firefighters is certainly very important for this case. Firefighters should always be alert in case of fire and choose the optimal travel route to come to the scene quickly. Search problem sometimes can be a fairly complex problem. It is caused by road conditions that must pass by the fire truck has a vehicle density levels are quite high.

In this research, the author created a search application for the firetruck using Floyd-Warshall algorithm based on Android. This algorithm will provide the optimal route search solution for firefighters. By paying attention to road conditions such as traffic jams, road conditions and the nearest water source of the fire. Search process is based on the calculation of distance of each node and choose the smallest distance between points.

Hope with this application can help provide guidance most optimal travel route, so firefighters can arrive to the scene quickly and losses caused by fire can be minimized.

Keywords : *Searching the Optimal Route, Fire, Floyd-Warshall algorithm, Android.*