ABSTRACT
Automatic Teller Machine is one of technology used by banks to serve their customers in financial transaction. The spreading number of ATM in district of North Purwokerto which is tourism and cultural town not all society and outsider community know the ATM location. To support operational efficiency, spreading the number of ATM can be visited by finding the shortest route from people position being that time. The information of ATM location and determination of the shortest route can be accessed through ATM Locator application that is supported by Google Map on Android. While the shortest route ATM location is processed by A* algorithm that has been provided by Google Maps. A* algorithm in determining the shortest route calculates actual cost plus heurictic cost. With the calculation of its cost, A* is optimal, without any time restriction and memory of A* is complete. The mean of cost is the length of the road or distance (km). ATM Locator application runs in operating system Android on Lollypop 5.0.2 platform. People need only to input the current node and ATM destination, and the shortest route would be found.

Keywords : A – star, Automatic Teller Machine, Shortest Route, Android.