

## **ABSTRACT**

*Telkom Trouble Ticket Online (T3-Online) is an application that manages customer complaints. However, the process of selecting location of repairs carried out by a field technician in First In First Out (FIFO) like queue in the order of complaints contained in the ticket. To deal with these problems required implementation of the Travelling Salesman Problem (TSP). One method that can be used to solve TSP is Ant Colony Optimization (ACO). In addition to helping the DCS assess the capability of each operational office Telkom in handle all the tickets will be the implementation of ranking method based on distance, duration and number of technicians available. One method of ranking that can be used is Simple Additive Weighting (SAW). Therefore, at this final project implementation ACO and SAW in Telkom Trouble Ticket Online services (T3-Online) to produce a total trip distance and duration of a more optimal and provide recommendations Telkom best operational offices to the DCS.*

*Keywords : the Division of Consumer Services (DCS), Telkom Trouble Ticket Online (T3-Online), Ant Colony Optimization (ACO), Simple Additive Weighting (SAW).*