

## SUMMARY

**Maya Errian Yolitta**, *Department of Urban and Regional Planning, Faculty of Engineering Brawijaya University, July 2018, Network Analysis for Emergency Medical Service in Malang City*, Advisor: Dr. Ir. Agus Dwi Wicaksono, Lic.Rer.Reg dan Dadang Meru Utomo, ST., MURP.

*Emergency case caused by traffic accident is one of mortal causes in the city which increases continuously every year. There are five blackspots in Malang City with the characteristic of high traffic density, these are Letjend. S. Priyo Sudarmo Street, Panglima Sudirman Street, Mayjen Sungkono Street, Kolonel Sugiono Street, and S. Supriadi Street. The success of emergency treatment is not even beyond to pre hospital treatment phase, that is giving patient transportation service to the right Accident and Emergency department and it is well with the standard service.*

*The research method used network analysis using ArcGis on Network Analyst extension. Network analysis is traffic modelling to monitor the connectivity between object that is connected to transportation network. This research discussed about hospitals toward blackspots in Malang City.*

*The result showed that the traffic flow of Malang City on Monday at peak hours have increased the traffic flow at morning, noon, and afternoon, while at non-peak hours is a freeway condition. The limitation of hospital service towards every blackspot in Malang City based on the effectiveness standard of response time 5 minutes travel time at non-peak hours include five blackspots, while at peak hours include three blackspots within service area of the nearest hospital, and two blackspots outside the service area of hospital in Malang City that are Mayjen Sungkono Street and S. Supriadi Street. The optimal route of ambulance based on the fastest travel time to Mayjen Sungkono Street is from Panti Nirmala Hospital through Kebalen Wetan Street – Muharto Street – Mayjen Sungkono Street. Then, the optimal route to S. Supriadi Street is from Dr.Soepraoen Military Hospital.*

*Keywords: emergency, network analysis*