

## SUMMARY

**Dwi Putri Figur Fitra**, Department of Urban and Regional Planning, Faculty of Engineering, University of Brawijaya, September 2016, The Modeling of Temperature Distribution Towards The Land Use in Malang City, Supervisor Mustika Anggraeni, ST., M.Si dan Ibu Kartika Eka Sari, ST., MT.

The changed of environmental aspect from natural into artificial effected the changing of micro temperature's characteristic which in this case is the air temperature (Susanti, 2006). The factor that affected the air temperature is the transformation of land use where the unbuild areas turned into build areas. The decreasing number of unbuild areas or the increasing number of build areas made Malang city became more dense. This, would surely had a major impact into the changing of temperature in Malang. This research aims to know the distribution of temperature in Malang and the relation between temperature and land use in Malang. The temperature distribution in Malang is analyzed using Software Arcgis 10.2 using Kriging that would be gained the 8 stages classification that sorted from the highest stage to the lowest. Based on the temperature classification, it is discovered the extensive of land use in every classification stages. Permen PU No. 20 Tahun 2011 was the source to determine the land use which would be used as a variable in order to determine the relation with the temperature using multiple linear regression with Stepwise method. Result of the research shows that the land use that effect temperature changing are land used as housing and green open space. Housing variable has positive relation with the temperature while green open space has negative relation with the temperature. This means that the increasing number of housing area would increase the air temperature as well, on the contrary, the increasing number of green open space would decrease the air temperature.

*Keywords:* Land Use, Kriging, Multiple Linier Regression Analysis.