ABSTRACT

Infant mortality is death that occurs after a baby is born until the baby is not yet 1 year old. Central Java Province is ranked first in the region with the biggest number of infant deaths in Indonesia in 2020 reaching 4,189 cases, so special handling is needed to reduce cases of infant mortality in the region by identifying factors that influence infant mortality. The difference in the number of infant mortality cases in each region is caused by different geographical characteristics, so that significant factors in one region can be different from other regions. One method that can be used to process spatial data is using the GWR method with the Adaptive Bisquare Kernel & Fixed Bisquare Kernel weighting functions. The results of the study show that GWR with the Fixed Bisquare Kernel weighting function is a better model for modeling the factors that influence the number of infant deaths in Central Java Province compared to the GWR model with the Adaptive Bisquare Kernel weighting function because it has a minimum AIC value.

Keywords: Infant Mortality, GWR, Bisquare Kernel Function, AIC