ABSTRACT

In ancient times, humans were very accustomed to depending on nature, so that in the past humans held the title as an outdoor species. Over time with many technological advances, the pattern of human life has shifted to being an indoor species. Currently, almost 55% of the world's population lives in urban areas and is projected to increase to 68% by 2050. Based on the NHAPS survey, the total time humans spend indoors is 86.9%. Research shows that air pollutants contained in indoor air are 2 to 5 times more than outdoor air. The neglect of the air layout sistem planning also worsens indoor air quality. It is often found that the supply of fresh air and the concentration of pollutants in the work or activity zone is unknown, even though this is an crutial matters. With the amount of time humans spend in space, air quality and the distribution of pollutants in indoor air becomes very important. This research will conduct spatial modeling of air pollutant distribution using kriging interpolation technique. The results of spatial modeling with this method produce an average of R-squared=0.8549 dan RMSE= 0.0339711. There are several factors that influence the increase in pollutant concentrations, the activity of the occupants, the number of occupants, and environmental conditions outside.

Kata Kunci: *IAQ, spatial, modelling, kriging, $PM_{2.5}$, CO_2.*