ANALYSIS OF THERMAL COMFORT OF SETTLEMENTS BASED ON UHI IN YOGYAKARTA CITY

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ABSTRACT

The development of cities that continues to increase encourages an increase in land use, especially settlements. Massive and uncontrollable settlement growth can lead to a decrease in the quality and thermal comfort of settlements. Yogyakarta is one of the cities in Indonesia with a rapid rate of development and population growth. This research study aims to analyze the quality and thermal comfort of settlements in the city of Yogyakarta. The remote sensing data used is Landsat 8 OLI imagery for analysis of vegetation index, land surface temperature, urban heat islands (UHI). The results of the model are presented in the form of a map, so that the spatial pattern of UHI can be identified and correlated with the comfort level which is calculated using the temperature humidity index (THI). The results of this study can be used by decision makers in evaluating and planning urban settlements. The outputs targeted in this study include mandatory outputs, namely articles accepted in Scopus indexed proceedings and additional outputs, namely copyrights. In terms of technology readiness, this research is included in TKT 2 with TKT 3 achievement targets

Kata Kunci: *Thermal Analysis, UHI, GIS*