NIK NAJIHAH HANIM NIK EFFENDI BACHELOR OF SURVEYING SCIENCE AND GEOMATICS (HONOURS) JULY 2024

ASSESSMENT OF URBAN GROWTH IN PASIR MAS USING GEOSPATIAL AND STATISTICAL ANALYSIS

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SCHOOL OF GEOMATICS SCIENCE AND NATURAL RESOURCES
COLLEGE OF BUILT ENVIRONMENT
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Thesis submitted to the Universiti Teknologi MARA Malaysia
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DECLARATION

I declare that the work on this project/dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA (UiTM). This project/dissertation is original and it is the result of my work, unless otherwise indicated or acknowledged as referenced work.

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ABSTRACT

Urbanization is an ongoing global phenomenon, with an increasing percentage of the world's population residing in urban areas. The quality of life in cities and the development of infrastructure are all significantly impacted by this urban growth. Monitoring urban growth and spotting changes in land use patterns is essential for managing the issues on urbanization and in the use of Remote Sensing (RS). Pasir Mas's rapid urban expansion and population growth pose significant challenges to sustainable urban development, including lack of supplies, environmental damage and others. In this study the aim is to determine the dynamic of urban growth on land use and land cover (LULC) using geospatial technique. Besides that, the objectives are to classify land use and land cover of Pasir Mas using image classification techniques and identify the relationship of LULC with population of Kelantan in 2010 and 2020 using correlation and regression analysis. However, this study used Supervised Classification by Maximum Likelihood for the LULC which have difference between both years. There has been an increase in urban areas, a growth in forests and other vegetation, and an increase in bare land. The analysis of combined growth factors showed weak correlations between population growth and land use changes in both years. This indicates that many other factors, like socioeconomic conditions and policies, play significant roles in population growth.

Keywords: LULC, urban growth, classification, population, change detection

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