

UNIVERSITI TEKNOLOGI MARA

**ANALYSIS ON THE INFLUENCE
FACTOR OF URBAN HEAT ISLAND
(UHI) IN PENANG ISLAND**

**NORASIAH BINTI RAZALI
(2014120745)**

Thesis submitted in fulfillment
of the requirements for the degree of
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(Hons)**

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

Name of Student : Norasiah Binti Razali

Student I.D. No. : 2014120745

Programme : BSc in Surveying Science and Geomatic (Hons)

Faculty : Architecture, Planning and Surveying

Thesis : Analysis On The Influence Factor Of Urban Heat
Island (UHI) In Penang Island

Signature of Student :

Date : July 2018

ABSTRACT

These studies are about detecting urban heat island (UHI) in Penang Island based on the Influence of population, land use change and temperature. UHI is a phenomenon that the temperatures of the urban area are hotter than the surrounding area. The aim for this study is to analysis the relationship between population, land use change and temperature to the urban heat in Penang Island. The objective of this study are to determine the place with the high temperature in Penang Island, to determine the relationship land use change and temperature to the urban heat island (UHI) in Penang Island and to assess the influence population and land surface temperature to the urban heat island (UHI) in Penang Island. This study will have used the Erdas 2014 software and ArcGIS 10.4 software to process the data. Landsat 5 TM and Landsat 7 ETM+ on year 1999 and 2016. This study also will use the population data, that data are from department of statistic. The supervise classification method will be used to detect the land use changes. The land surface temperature (LST) will calculate in this study.

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