UNIVERSITI TEKNOLOGI MARA

GEOGRAPHIC INFORMATION SYSTEM (GIS) - BASED SOLAR PANEL SITE SELECTION USING ANALYTIC HIERARCHY PROCESS (AHP) TECHNIQUE

SITI NADHIRAH BINTI MOHD ASRI

Thesis submitted in fulfillment of
the requirements for the degree of
Bachelor of Surveying Science and Geomatics (Hons)

Faculty of Architecture, Planning, and Surveying

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AUTHOR'S DECLARATION

I declare that the work in this report was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged a referenced work. This report 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 Undergraduate, Universiti Teknologi MARA, regulating the conduct of my study.

Name of Student	:	Siti Nadhirah Binti Mohd Asri
Student I.D. No.	:	2017880728
Programme	:	Bachelor of Science in Geomatics
Faculty	:	Architecture, Planning & Surveying
Thesis Title	:	Geographic Information System (GIS) – Based Solar Panel Site Selection using Analytic Hierarchy Process (AHP) Technique.
Signature of Student	:	
Date	:	August 2020

ABSTRACT

Solar energy plays a crucial and high priority role in protecting and maintaining our future environment as Malaysia is one of the country that receive so much of sun solar (Azizkhani, et al, 2017). However, to build a solar panel, it is a need to choose an appropriate area with a high development area because other than to build a solar panel, it is also can reduce the rate of carbon release into the air. Site selection for solar panel is a critical issue to construct in such a higher development in Kuala Lumpur. The primary aim for this research is to find a suitable site selection for solar panel construction in Kuala Lumpur using Analytic Hierarchy Process (AHP) in Geographic Information System (GIS), using the well-known software ArcGIS. An Analytic Hierarchy Process (AHP) is applied to weigh the criteria needed in evaluating potential areas (Al Garni & Awasthi, 2017). It is also depending on the economical and geographical conditions to produce an effective factor in providing the site selection for solar panel. Furthermore, in finding a suitable site selection for solar panel, many parameters will be used so that the result is more reliable and it can be used for the further project.

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