UNIVERSITI TEKNOLOGI MARA

IDENTIFYING FACTOR OF FOREST FIRE RISK IN SELANGOR USING ANALYTICAL HIERARCHY PROCESS (AHP)

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Thesis submitted in partial fulfillment
of the requirements for the degree of

Bachelor of Surveying Science and Geomatics

Faculty of Architecture, Planning and Surveying

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AUTHOR'S DECLARATION

I declare that the work in this dissertation 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.

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ABSTRACT

Forest fire is one of the major environmental issues, that can damage environment and human lives as well. Forest fire usually caused by natural or man-made reasons and can cause haze pollution, which will give bad effects toward human health such as asthma and skin infection. Forest fire are becoming an issue in Selangor because of its high occurrence over the year. To solve this problem, map of forest fire risk zone are produce. The aim for this research is to identify forest fire risk zone in Selangor by integrating the factors that influence forest fire using Analytical Hierarchy Process (AHP) technique. To achieve the aim of the study there are three objectives that will be done which is to identify parameters that influence forest fire, to determine weightage factor of each parameters using AHP technique, and lastly to classify forest fire risk zone. The data used in this research are Landsat 8 OLI and Digital Elevation Model (DEM) data, which is Shuttle Radar Topography Mission (SRTM). Meanwhile, the software used in this research are Erdas Imagine, Excel and ArcGIS. At the end of the result, forest fire risk zone can be determined.

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