

**UNIVERSITI TEKNOLOGI MARA**

**OIL PALM ANALYSIS USING VEGETATION  
INDICES**

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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 result 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 Under Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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## **ABSTRACT**

Oil Palm plantation is one of main plantation in Malaysia and it has a big contribution to national income. Oil palm is an important plantation in Malaysia because it is a major source of the world supply of oils and fats. Therefore, it is important to monitor the productivity of oil palm plantation as it can be the source of income for our country by exporting raw and end product of oil palm to other country. Remote sensing technologies have been widely used for crop management to increase the efficiency of agricultural input, monitor crop growth and health and also estimate yields. Compared to ground data, remote sensing offers a simpler method of crop monitoring and analysis by using satellite image. The relevant of this study is to apply the use of remote sensing in the analysis of oil palm plantation. The aim of this study is to study the relationship between values of soil-adjusted vegetation index (SAVI) with oil palm production. The study area of this research is at FELDA Chuping, Perlis. The data of Landsat 8 satellite image with 15 meter resolution and field yield data of oil palm is used in this study. Processing was carried out by using ERDAS Imagine software. After that, regression analysis used to analyse the relationship between values of vegetation index with oil palm production in year 2018.

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