

**UNIVERSITI TEKNOLOGI MARA**

**ANALYSIS OF TERRAIN CONDITION  
SUITABLE FOR TACTICAL  
PLANNING OF MILITARY COURSE**

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Thesis submitted in fulfilment of the requirements for the  
degree of

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(Honours)**

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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.

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## **ABSTRACT**

This study investigates the condition of terrain using Geographic Information System (GIS) technology to meet military requirement. Terrain analysis were introduced after selecting the study area and classified into two types of terrain analysis which is Geographical Information System (GIS) based and Intelligence Preparation of the Battlefield (IPB) based. The study is conducted to study and analyse the terrain area for provide information that contribute military assessment. Terrain analysis based on Geographic Information System (GIS) is conducted to acquire digital data of terrain area and analyse it with method that suits with military operation. Terrain analysis based on Intelligence Preparation of the Battlefield (IPB) is also conducted to visualize terrain area and implements the military operation effectively. It was determined that GIS processor and military analyst can use result of terrain analysis based on both method and focussing on acquiring information required for constructing tactical planning. Finally, the final output which is Modified Combined Obstacle Overlay (MCOO) produced to support military operation. The final output is shown in digital presentation to replace traditional output which is used land model that built using physical features found in forest.

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