

**UNIVERSITI TEKNOLOGI MARA**

**GEO – IMS**  
**(GEOMATICS – INVENTORY MANAGEMENT SYSTEM)**

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Thesis submitted in fulfillment  
of the requirements for the degree of  
**Bachelor Science of Geomatics**

**Faculty of Architecture, Planning and Surveying**

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## AUTHOR'S DECLARATION

I declare that the work in this thesis/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

This study design for the development of Geomatics – IMS (Inventory Management System) for *Makmal Peralatan Ukur* UiTM Arau, Perlis. Inventory management is an activity carried out to maintain the optimum number or amount of each inventory item. In this study, the inventory refers to the land surveying instrument management. The aim of this study is to enhance the current procedure of borrowing land surveying instruments. By applying web-based Geographic Information System (GIS) and programming language we were able to manage inventory management with linkage to all database, including the database of land surveying instrument, database of time table and database of Geomatics students by using ArcGIS online to embed the map of the Surveying Instruments Laboratory and programming language; PHP, JavaScript and SQL to integrate data on the web. The target user of this system is more to geomatics students and officer. The result will make way for an effective system integrating web-based GIS. The combination of web-based GIS and land surveying, management system has many advantages which make the system more user-friendly and easy to access anytime and anywhere.

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