

UNIVERSITI TEKNOLOGI MARA

MOBILE GIS DATA COLLECTION USING ANDROID
APPLICATIONS

NOORFATEKAH BT TALIB

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DECLARATION

I declare that the work on this project/dissertation 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 supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

Name of Student : Noorfatekah Binti Talib

Student ID. No. : 2012561405

Programme : Master of Science

Faculty : Architecture, Planning & Surveying

Thesis/Dissertation Title : Mobile GIS Data Collection Using Android Applications

Signature of Student : 

Date : January 2014

ABSTRACT

An advance technology like mobile GIS data collection has become popular nowadays. The technology provides a precise and cost-effective means of collecting geospatial data. Mobile GIS can improve the quality and speed of data collection. Besides, mobile GIS also defined as a system that supposed to be run on all the available mobile platforms such as from mobile devices to computer desktop or from laptop to PDAs. The successful of implementing a mobile GIS solution is always connected to the environment applications in collecting, editing and analyzing the mobile data. In this study, GIS is used in collecting the data by using an android application and mobile device as a platform. Because of that, there are many applications for mobile GIS data collection in the market store. Therefore, the aim in this study is to explore the potential use of android application on collecting GIS data. On the same time, the objectives are to evaluate the capabilities of mobile android applications in terms of ease of use, identify an easy and simple way for users to report the damage using their mobile applications and lastly to generate a map display. Furthermore, an open source applications that has in the market is chosen based on its specified characteristic. The selected applications in this study are GPS Surveyor by Mobile Brigade, Mobile Data Collection by GIS Cloud and GeoJot+ by GeoSpatial Experts. All these three applications have been tested starting from download and installation, data collect and processing, editing and exploration and lastly data integration and map displayed. ArcGIS Online works as service mapping to display the final data. The finding in this study has shows that all different application has different features and its capabilities. However, GIS Cloud Mobile Data Collection is proven to be a user-friendly application which it is easy to operate and simple to use. But, GeoJot+ is a good application in data collecting whereby it has integration with ArcGIS software. Furthermore, good choices of the application will influences the final products of the study by refer to its capabilities and potential.

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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