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THE ROBUSTNESS OF DATABASE SYSTEM USING OPEN SOURCES GIS IN E-CADASTRE SURVEY

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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 (UiTM). This project/dissertation is original and it is the result of my work, unless otherwise indicated or acknowledged as referenced work.

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ABSTRACT

In the terms of Geographic Information Systems (GIS) software, 'open sources' denotes applications with freely accessible source code that encourage community collaboration, allowing both volunteer and paid programmers to view, modify, and extend the software. The government has incurred very high costs for a certain project, even though the use of open-source GIS could reduce project expenditures. Lack of specialized technical support, which is essential for the accuracy and dependability needed in cadastral mapping, frequently causes stability issues for open-source GIS platforms. Open-source GIS in this research aims to identify the alternative for handling cadastral database using open sources GIS applications. However, open-source GIS implementation in cadastral applications is expected to integrate low-cost maintenance procedures into the open sources and to explore the capabilities of open-source database's system by doing the development and testing in this research. In this research, Qgis were use since it can play a significant role in E-cadastre survey as a open source software and PostgreSQL used to stored database. From the research, results show that, open sources software is developed and maintained by a vibrant community, it is stable and reliable, but it also comes at a lower cost to governments because it does not require license fees and lowers ongoing costs. In conclusion, by utilizing open-source GIS software, the government can reduce it financial burden by identify the open-source GIS software's database system's stability and promoting the use of more open and sustainable technology.

Keywords: GIS, Cadastral, E-cadastral survey, Open Sources, Cost-effective

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