

The SmartKADASTER Way – An Approach Towards 3D Geovisualisation Beyond Cadastre Purposes in Malaysia

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SUMMARY

Cadastral maps are a critical cadastral survey product. They contain essential information about the property's spatial dimensions and the owner's rights, restrictions, and responsibilities. Previous research has established that 3D geovisualisation aids in analysing and decision-making when dealing with geospatial data, particularly when land use, the built environment, and people relationships are concerned. A paradigm shift is required to incorporate 3D geovisualisation and cadastral survey data beyond cadastral purposes, which is why the Department of Survey and Mapping Malaysia (JUPEM) developed the SmartKADASTER system with an emphasis on urbanised areas. The first phase of the SmartKADASTER system went live in 2017, and the second phase is currently in development. It is scheduled to go live sometime in 2022. The purpose of this paper is to highlight the approach that JUPEM has underwent and discovered throughout its development's journey. Section One discusses the motivation for the SmartKADASTER phase 2 (SK2) system development, while Section Two distinguishes the significant differences between the implementation of the first and second phases. Section Three highlights the key features applied during the development period, while Section Four discusses the challenges encountered in SK2 including the effects of Covid19 pandemic, with its corresponding recommendation. Finally, Section Five summarises the paper and suggests the way forward for better 3D geovisualisation and decision making through SmartKADASTER. It is hoped that this study would contribute to the body of knowledge on incorporating 3D geovisualisation and cadastral data and be used in future plans, particularly those beyond cadastral purposes.

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