

A Mechanism to Transform from 2D Cadastre to 3D Cadastre for Sri Lankan Context

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ABSTRACT

3D Cadastre has become an emerging trend in the Cadastral systems in the world during past decade. With the increasing of development activities in the urban areas, the vertical development has started to take over the horizontal development of settlements. This is mainly due to the scarcity of land due to the development activities. Many countries have taken the first step to introduce a 3D cadastral model to represent the 3D reality of the properties. But, there has been less influence from third world countries like Sri Lanka on 3D Cadastral systems. This study is mainly based on how to take an approach to 3D Cadastre in Sri Lanka by studying the different techniques used by different countries. This study is a reviewing research which comprehensively discusses the 3D Cadastre and its implementations in the world. Literature has provided knowledge on the importance of 3D Cadastre and how the 3D Cadastral data being used abroad. This study comprises of a comparison in order to identify the pluses and minuses carrying by the different methods used in 3D representation of Cadastral data. Analysis of the research papers which have contributed in the field of 3D Cadastre have been brought up for notice within the analysis of this research. Moreover, the different software used for 3D modelling have been discussed. Finally, this study has proven that the method used by China is best technique among all which is suitable for Sri Lanka to implement the 3D Cadastre system in order to represent the real representation of a 3D property.

Keywords - 3D Cadastre, Vertical Development, Cadastral Data, 3D Modelling