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THE EFFECT OF THREE-DIMENSIONAL MODELLING FROM DIFFERENT OF UAV ALTITUDE TOWARDS VIRTUAL MUSEUM APPLICATIONS

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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

This research study explores the use of UAV to document and create 3D models for virtual museums. The aim is to assess two different altitudes of capturing of 3D digital documentation for structures. Advanced surveying techniques are used to gather accurate measurements and geometric data for documentation. The study shows that drones offer great potential for creating detailed and precise maps, especially for small areas that require multiple data points over time. Mapping techniques using remote sensing technology have made significant progress, with improved vehicles, sensors, and software. Drones are particularly useful for mapping small areas with high resolution. The research has two main objectives first, to analyse the quality of measurements taken at two different altitudes while capturing images and second, to create a 3D model of an old fort for a virtual museum. The findings suggest that using drones for surveying is a cost-effective and portable solution that can provide comprehensive data for virtual museum development. The study concludes that drones offer promise in the field of surveying, enabling the creation of virtual museums in an affordable and efficient manner.

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