UNIVERSITI TEKNOLOGI MARA

GEO-LOCATION BASED MOBILE AR WAYFINDING FOR UITM PERLIS FRESHMEN

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Thesis submitted in fulfillment
of the requirements for the degree of
Bachelor of Science
(Science, Surveying and Geomatics)

Faculty of Architecture, Planning and Surveying

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AUTHOR'S DECLARATION

I declare that the work in this dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results 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 been supplied with the Academic Rules and Regulations for Under Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Every semester, universities always received new student intake from all over Malaysia. Being a new university student is the exciting part but, the worst part is freshmen having a trouble in getting familiar around new campus surrounding. Statistically, there are more than 60% of freshmen in UiTM Perlis experience this problem according to survey that had been performed. Together with technological developments that ingoing the revolution of Industry 5.0, geo-location based mobile AR wayfinding for UiTM Perlis freshmen is developed in order to show the wayfinding around campus. This study objectives are to navigate the unfamiliar surrounding for freshmen in UiTM Perlis using AR technique as wayfinding and indirectly to provide ease of use geolocation-based AR technique to UiTM Perlis freshmen by using this app. Location based AR technique is used for showing the POIs with distance in camera view by converting GPS coordinate to camera coordinate and Google Map API is used for showing the pathfinding for freshmen as an option. The results indicate that this app ease freshmen getting familiar with campus surrounding and gain new input about use of location-based AR. On this basis, this app indirectly entertains the freshmen who still awkward with new campus atmosphere. Future research is needed to improve the application that could strengthen the effectiveness of this app.

Keyword: augmented reality (AR), location-based AR, wayfinding application, mobile application

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