Universiti Teknologi MARA

Mobile Application for Tracking Flood Disaster Victim Using Geofence

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SUPERVISOR APPROVAL

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This report was prepared under the supervision of the project supervisor, Sir Sulaiman Bin Mahzan. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfilment of the requirements for the degree of Bachelor of Computer Science (Hons).

Approved by

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Sulaiman Bin Mahzan

Project Supervisor

JULY 24, 2017

STUDENT DECLARATION

I certify that this report and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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ABSTRACT

Fire and Rescue Department Malaysia (FRDM) is one of the government agency that participate in managing the situation in flood disasters. Flood disasters are annually incident occurs in Malaysia during north east monsoon season. Due to flood disasters has negative impact on the economy and general society, Malaysia has lost billions of Ringgits annually and infrastructure. FRDM manage the situation by helping the victim who has trouble during flood disasters. However, FRDM still unable to achieve acceptable response time in flood disasters. The problem can be identified from how to extract information from victim and how to communicate between FRDM to victim or between FRDM member itself. Thus, this mobile application project help FDRM to receive victim information and display the current flood disasters report easily. The mobile application use Geofence technique to increase the victim conscience on their surrounding with the location that the victim has pinpoint for FRDM meetup. Therefore, the victim need to stay inside the fence until a help is coming. Information receives from the victim is important to locate the victim current location to promptly send help to them. The methodology used in this project is Rapid Application Development (RAD). This methodology ensure the project application can be built in faster than using other Software Development Lifecycle (SDLC). This application is evaluated using System Usability Scale (SUS) to show it usability. Result shown that the project application is usable by the user with overall score of 74.29%, which is above the average of SUS required score making the project application is a success. In the future, the application has push notification to notify the user on the information of current flood disasters.

Keyword: Android, Geofence, SUS,Flood Disasters,Location, GPS

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