

**UNIVERSITI TEKNOLOGI MARA**

**SOCIAL DISTANCING MOBILE  
APPLICATION USING BLUETOOTH  
LOW ENERGY**

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**Social Distancing Mobile Application  
using Bluetooth Low Energy (BLE)**

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## **SUPERVISOR APPROVAL**

### **SOCIAL DISTANCING MOBILE APPLICATION USING BLUETOOTH LOW ENERGY (BLE)**

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This thesis was prepared under the supervision of the project supervisor, Ros Syamsul Bin Hamid. 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.) Data Communication and Networking.

Approved by

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Ros Syamsul Bin Hamid  
Project Supervisor

JULY 18, 2022

## **STUDENT DECLARATION**

I certify that this thesis 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**

Concerns about the health of the populace have been brought on by the rapid spread of COVID-19, a potentially lethal illness. In light of the gravity of the situation, maintaining social distance is one strategy for halting the contagiousness of the virus. This study discusses the process of developing a social distance mobile application. The social distancing mobile application is a kind of programme that, when activated, will send alerts to the user. After the user has downloaded and installed the programme as well as activated Bluetooth on their mobile devices, the application will function properly. The notice will be triggered when the user comes in touch with another user who is at a distance of less than 2 metres. For the programme to function properly, it must be able to identify mobile devices with the Bluetooth setting turned on. During the testing phase, both a user acceptability test and a test of the network's performance were carried out. A user acceptability test consisting of an evaluation of the questionnaires was carried out with thirty participants. The results of the surveys revealed that the vast majority of respondents were pleased with all of the categories offered. In addition, one of the aspects of testing that was carried out was a test of the performance of the network, and the outcome of that test regarding the reaction time of the network revealed that it was satisfactory. Therefore, on the basis of the features and capabilities provided in this system, the users who have installed the programme will profit.