

**ACCESSIBILITY MAPPING USING  
MOBILE APPLICATION FOR WHEELCHAIR USER**

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**Final Year Project Report Submitted in  
Partial Fulfilment of the Requirements for the  
Diploma in Geospatial Technology  
In the College of Built Environment  
Universiti Teknologi MARA**

**JULY 2024**

## **ABSTRACT**

### **ACCESSIBILITY MAPPING USING MOBILE APPLICATION FOR WHEELCHAIR USER**

One the disabilities named by the Department of Social Welfare Malaysia is physical impairment. Wheelchair user can be one of them. Wheelchair user always faces with the problem of being below the normal line of sight of the drivers, pedestrians, and other road users. It can be exposed them to danger if others cannot see the wheelchair user quickly enough. This blind spot has caused accidents involving wheelchairs on roads and sidewalks. Therefore, this project focuses on the development of accessibility mapping using the mobile application for wheelchair users around the Universiti Teknologi MARA (UiTM) Seri Iskandar campus area. Details information of each building on the UiTM Seri Iskandar campus is also being provided in this app. For this project, this mobile application was develop using Android Studio software meanwhile Java programming language was used to write the coding. This application focus on identifying suitable routes for them to use within UiTM Seri Iskandar campus. By integrating and digitizing routes using Google Maps, wheelchair users can navigate on the campus without any obstacles. With the development of this application, it will help the wheelchair user to go to the selected destination in UiTM Seri Iskandar campus.

**Keywords:** Accessibility Mapping, Mobile Application, Wheelchair user, Android Studio

## ACKNOWLEDGMENT

Alhamdulillah, praise and thanks to the presence of Allah SWT because with His abundant grace and abundant grace, we were able to complete this project within the stipulated time period. Firstly, we would like to express our deepest appreciation to my supervisor, Sr. Gs. Azlizan Adila Binti Mohamad for guiding us throughout our research. In addition, our supervisor has guided us by giving us ideas to complete the project and providing support for our project.

I express my deepest gratitude to my beloved family, especially my father and mother. Finally, we would like to thank our friends. In addition, we would like to thank all my students and assistants for this project.

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.0 Background of study**

Wheelchair user is a person who uses a wheelchair or benefits from using a wheelchair because their ability to walk is limited or inefficient. The needs of each wheelchair user vary. Each wheelchair provides the user with postural support. Backrests, cushions, footrests and armrests all provide postural support when adjusted to fit the size of the wheelchair user.

Assistive products such as wheelchairs help improve the health, well-being, participation and inclusion of people with disabilities. Wheelchairs provide an independent dignified life for children, adults with disabilities, and the elderly. It opens doors to education, employment, and social engagement for children and adults living with disabilities. There are approximately 240 million children with disabilities worldwide. Internationally, the World Health Organization (WHO) estimates that at least 15% of the world's population suffers from some form of disability. This happens, due to the age factor of the population and the increase in the rate of people suffering from chronic diseases, the increase in the number of people with disabilities