

**INFOBANJIR : INNOVATIVE GEOSPATIAL  
TECHNOLOGY FOR FLOOD INFORMATION**

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**Final Year Project Report Submitted In  
Partial Fulfilment Of The Requirements For The  
Diploma In Geospatial Technology  
In The Collage Of Built Environment  
Universiti Teknologi Mara**

**JULY 2024**

## **ABSTRACT**

### **INFOBANJIR : Innovative Geospatial Technology for Flood Information**

In order to deal with the increasing number of floods in Kelantan, Malaysia, flood management and early warning systems have become a necessity. This project addresses this challenge by developing a mobile application for INFOBANJIR, offering a simple interactive area map visualization connected to google maps, real-time weather updates, emergency call button functionality. By integrating Maps, the application provides flood risk assessment and timely alerts. The system is integrated with weather data for continuous data collection, processed through sophisticated algorithms to monitor flood info setup. Dashboards and hotspots that prioritize user areas on map fragments empower users to identify hotspots at risk of flooding and take timely response actions to flood events. The project aims to improve community preparedness by enabling timely alerts through application channels to residents in areas that are often hit by floods. Expected outcomes include accessible dashboards, automation, usable application systems and SOS alert calls. Finally, INFOBANJIR is an important step in strengthening flood management in the state of Kelantan.

pemuka yang boleh diakses, automasi, sistem aplikasi boleh digunakan dan panggilan amaran SOS. Akhir sekali, INFOBANJIR ini merupakan satu langkah penting dalam memantapkan pengurusan banjir di negeri Kelantan.

### **ACKNOWLEDGEMENTS**

We extend our deepest gratitude to Sr Gs Ts Dr Izrahayu Che Hashim for her exceptional mentorship, tireless guidance, and steadfast support throughout the entirety of our project. As the coordinator of the Diploma in Geospatial Technology program and our esteemed supervisor, her expertise, dedication, and unwavering commitment to our success have been invaluable assets. Her insightful feedback, encouragement, and willingness to go above and beyond have truly enhanced our learning experience and enabled us to navigate through the complexities of our project with confidence and clarity.

Furthermore, we would like to express our appreciation to Dr. Suzanah for her invaluable contributions as our class teacher. Her depth of knowledge, passion for teaching, and genuine interest in our academic growth have been a constant source of inspiration and motivation. Her constructive feedback, encouragement, and willingness to provide guidance whenever needed have significantly contributed to the development and refinement of our project.

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## **CHAPTER 1**

### **INTRODUCTION**

In this introduction chapter, general information about this proposed project will be show. The context in which this project was conducted, and the background and problem statement are represent at the beginning of the chapter. The context of significant study is to show about the purpose of the study and the objectives of this application are the main or specific issues that are being looked at. The explanation of the project's purpose and objective are then followed. Finally, a summary of the proposed project's process is given.

#### **1.1 Background and Problem statement**

In Malaysia, flooding is a recurring issue, especially during the monsoon season that affects thousands of people every year in Kelantan. Kelantan is one of the states located on the East Coast of Peninsular Malaysia that is exposed to the North East Monsoon winds and is hit by floods almost every year. This flood occurred due to the extreme, all-encompassing heavy rains brought by the North East Monsoon which blows from November to March every year. In this North East Monson on season, the State of Kelantan can be said not to experience continuous