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**PERSPECTIVES OF ROAD USERS ON ROAD
DRAINAGE SYSTEMS DURING HEAVY RAINFALL IN
SELANGOR**

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ABSTRACT

Malaysia has an equatorial climate that is hot and humid throughout the year. Malaysia's spot, which is Malaysia is a country located on the equator line where it has monsoon seasons but changes may occur depending on the location and period. Thus, the average range of rainfalls is different among the states in Malaysia. Heavy downpours urge road drainage systems to discharge the surface water to the selected channels without overflowing on road pavements. The overflowed surface water will affect surrounding users, the environment, devices and others. Road drainage systems are one of the essential infrastructure facilities on the roadway during rainy days. Selangor is a state known for its high population density compared to the other states and is also known for the frequently reported drainage problem that occurred especially during the monsoon season. Therefore, this research objective is to observe and to identify problems with the road drainage system, determine the satisfaction level of road users towards the road drainage systems and establish the importance-ness of the performance of road drainage systems. The quantitative method is used in this research by distributing online survey questionnaires to road users in Selangor and using secondary data as a research tool for getting primary data. As categorised in non-probability sampling techniques, snowball sampling is used for this research to collect the data. The data obtained will be analysed using the SPSS version 26.0 tool. This research shows that most road users agree where road drainage systems decline during extreme weather. This research also encourages the parties responsible for maintaining and increasing the performance of the system thru observe and act accordingly to implement a sustainable road drainage systems in high populated areas.

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I want to express my sincere appreciation and gratitude to my supervisor who always shared her knowledge and guided me throughout preparing this dissertation. Her insightful supervision, patience, motivation and criticism and encouragement has helped me all the time until it was able to be completed.

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TABLE OF CONTENTS

ABSTRACT	i
ACKNOWLEDGEMENT	ii
TABLE OF CONTENTS	iii
LIST OF FIGURE	viii
LIST OF TABLE	x
LIST OF ABBREVIATIONS	xi
CHAPTER 1: INTRODUCTION	1
1.1 BACKGROUND OF RESEARCH.....	1
1.2 PROBLEM STATEMENTS.....	6
1.3 RESEARCH AIMS.....	11
1.4 RESEARCH OBJECTIVES.....	12
1.5 RESEARCH QUESTIONS.....	12
1.6 RESEARCH HYPOTHESIS.....	12
1.7 SCOPE OF RESEARCH.....	12
1.8 RESEARCH METHODOLOGY.....	13
1.9 OUTLINE OF RESEARCH.....	15
CHAPTER 2: LITERATURE REVIEW	17
2.1 INTRODUCTION.....	17
2.2 CLIMATE IN MALAYSIA.....	18
2.2.1 Monsoons season in Malaysia.....	18
2.2.2 Rainfall Distribution in Malaysia.....	21
2.3 DEFINITION OF ROAD DRAINAGE SYSTEM.....	22

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND OF RESEARCH

Malaysia is a country in Southeast Asia that is situated on the line of the equator. Therefore, Malaysia has sunny and rainy days throughout the year. Malaysia is made up of 13 states and the Federal Territories of Kuala Lumpur, Putrajaya and Labuan, an island situated off the coast of Sabah in East Malaysia. According to Director of MetMalaysia-General Jailan Simon, the heavy rain and thunderstorms that have struck most of the peninsula's west coast are not unusual. It is well known as a weather recurrence or severe weather phenomenon for a while (Bernama 2021). He also added that thunderstorms, heavy rain, and strong winds are an occurrence of the monsoon transition phase, which will begin from the middle of March until the middle of May.

During this time, Malaysia receives low winds from various directions, causing thunderstorms to develop along the west coast and interior areas of the peninsula and the west and central parts of Sabah and Sarawak. It usually happens in the evening and might cause damage to buildings, uproot trees, as reported in Bernama (2021) in April 2021. In addition, heavy rain and thunderstorms also cause many areas of the federal capital of Malaysia to be flooded from the weather.

