

Universiti Teknologi MARA

**Driver Drowsiness Detection and Alert
Mobile Application (DDDA)**

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ABSTRACT

Nowadays, road accidents are becoming common in the country. This might be due to microsleep which causes driver to fall asleep for a short period of time while driving. In this split second, the driver may lose control of the vehicle and cause an accident. This project aims to develop an application that can help driver to wake up in case the driver falls into microsleep. Moreover, this project will help driver to stay awake and focus while driving through the sound alert system. This application will use the driver's face to detect the microsleep and then give an alert if microsleep is detected. The system is expected to help driver to stay awake and focus while driving.

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CHAPTER 1

INTRODUCTION

This chapter provides the project background, problem statement, objectives, scope and the significance of the project.

1.1 Background of Study

A road accident refers to any accident involving at least one vehicle, occurring on a road open to public circulation, and in which at least one person is injured or killed. Road accidents are very common nowadays especially in our country. This accident occurs due to driver's ignorance of traffic sign. Studies have found that more than one in five fatal car accidents involve fatigue and driver will lose focus when they are tired. Besides that, this accident is also caused by a bad road condition that affects the driver's capability to maneuver the vehicle skillfully. From the statistics recorded, there have been more than 280,000 accidents nationwide. The Bukit Aman Investigation and Traffic Enforcement director, Datuk Azisman Alias said between January to June 2019, 281,527 accidents have been reported all over the country (Tasneem Nazari, 2019). According to recent study, about 54 percent of drivers admitted having been involved in an accident after drifting off to sleep while 61 percent reported that they almost got into an accident because they were sleepy (Clarissa Chung, 2019). A questionnaire had been distributed to 20 respondent and it was found that half of the respondent always get sleepy when driving. They cope with this situation by stopping at a resting place to get a rest or a nap. However, this