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: IP/CR/01123 Reference No

Title of Innovation: Survey on Road Barriers and Hoardings

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No.	Funding Source	Funding Body	FUNDING TYPE	UNIVERSITY REFERENCE NO.	PROJECT LEADER

# 3. External Collaboration

Has any of this work been carried out elsewhere? : No

# 4. Benefit of Copyright

# Benefit to society / community

Description of benefit to society / community

: The purpose of this survey was to assess road barriers' and hoardings' design and performance as well as safety aspects. The finding of this survey is used to improve the specified aspect of road barriers and hoarding(design and performance). The survey is beneficial in getting road users perceptions on the road barriers performance & amp; safety aspect.

Relevant community for the copyright to be

implemented

: Construction industry.

## Benefit to Industry

Description of benefit to industry

: The finding of the survey was used to improve the design and safety aspect of road barriers and hoardings. The outcome of the survey will be an improved version of the road barriers that solve many problems in the existing road barriers such as wobbly due to weather & Darriers when the survey vehicle traffic, water pounding, installation issue, and traffic sign installation issue.

Relevant industry(s) for the copyright to be commercialized

: Public Work Department, Malaysian Highway Authority

#### 5. Copyrigh

# **Application Title**

Survey on Road Barriers and Hoardings

### **Copyright Details**

Date Invented : 24-08-2020
Place Invented : UTM
Country of origin : MALAYSIA

### Problem Statement

Problem

Solution

: Road barriers and hoardings have many issues in construction site such as: 1) Levelling of plastic hoarding is found difficult during preliminary

installation 2) Need different structure/location to accommodate road signage 3) During heavy rain, the plastic road barriers cause water pounding on the road side and/or disassembled 4) Road barriers with hoarding boards wobble with the presence of wind flow and heavy

vehicles.

: The problems written in the previous section was observed on construction site/work zone area. This was a one-sided observation that could bring bias judgement. Therefore, survey on road barriers and hoardings was designed, with the prime purpose, to get feedback from other users including practitioner and public people. The findings from the survey would serve as a basis of justification in the need of the redesign of road

barriers for the community's benefit.

Copyright Category : Questionnaire

### Brief description of the invention

The survey form was designed to obtain road users perception on the performance and design of road berriers and hoardings

## 6. Statutory Declaration

Date of project started :24 Ogos 2020
Date of work completed :29 September 2020

### COPYRIGHT ACT 1987

IN THE MATTER of Section 42 of the Copyright Act 1987 (Act 332)

And

In THE MATTER of the copyright in the Work (as hereinafter defined and attached hereto marked as "Exhibit 2", in the name of <u>Universiti Teknologi Malaysia</u>

#### STATUTORY DECLARATION

I, ASSOC. PROF. Ts DR. NOOR AZURATI BINTI AHMAD @ SALLEH (NRIC No. 790325-01-5032) of full age and a Malaysian citizen with an address at Innovation and Commercialisation Centre, Industry Centre, Technovation Park, Universiti Teknologi Malaysia, 81310 Johor Bahru, Malaysia, do hereby solemnly and sincerely declare that the following contents of this notice are true:

- I am the Director of Innovation and Commercialization Centre, Universiti Teknologi Malaysia (hereinafter referred to as "the University"), a Public University in Malaysia with its address at Innovation and Commercialization Centre, Industry Centre, Technovation Park, Universiti Teknologi Malaysia, 81310 Johor Bahru, Johor, Malaysia.
- In my aforesaid capacity, I have been duly authorized by the University to make this Statutory Declaration on their behalf. The faces herein contained are, unless to the country is stated from any personal knowledge or taken from the record of the University to which I have free and unrestricted access. The facts deposed to herein are true to the best of my knowledge, information and belief.
- The University is the owner of the copyright of "Survey on Road Barriers and Hoardings" (hereinafter referred to as "the works"). Please refer to Exhibit 2.
- The contributor(s) who is/are the author(s) of the Work is/are as follows:-

1. Name: SITTI ASMAH BINTI HASSAN

NRIC No.: 800305126276

2. Name: NORDIANA BINTI MASHROS

NRIC No.: 821212115554

3. Name: NIK AHMAD RIDHWAN BIN NIK MOHD

NRIC No.: 791217035241

4. Name: ZAINAB BINTI MOHAMED YUSOF

NRIC No.: 760703055190

 Name: SHABUDIN BIN MAT NRIC No.: 740906095119

6. Name: MOHD HASBULLAH B HJ. IDRIS

NRIC No.: 621226085943

7. Name: MUSTAFA BIN YUSOF NRIC No.: 591005055017

Name: Mohd Ali bin Abdul Aziz
 NRIC No.: 730222055045

Main contributor of the Work must be the employee of the University (hereinafter referred to "the Main Author")

The personal details of the contributor(s) (hereinafter referred to as "the Author(s)") and information of the Work is attached herewith and marks as "Exhibit 1".

 The Author(s) involved in the development of the Work is as listed in the document annexed as "Exhibit 1", herein and have been involved in the development of the Works for a period commencing from 24 Ogos 2020.

The Works comprises of One (1) document entitled as follows:

i. "Exhibit 2"

I hereby declare the following:

- ii. on **29 September 2020**, copyright subsisted in the Works and continues to subsist:
- iii. the Author(s) has/have expended sufficient to make the Work original in character:
- iv. the Work has been reduced to a material form;

and pursuant to Section 7 of the Copyright Act, 1987, the Work is eligible for copyright protection.

- 6. I have further been advised and verify believe that as:
  - i. The Main Author was at all material times the employee of the University and had developed the Work in the course of his employment with the University; and
  - ii. The University is the qualified person within the meaning of Section 10 of the Copyright Act 1987 the copyright in the Work belongs to the University.
- 7. Therefore I, on behalf of the University, do hereby assert the ownership of the copyright in the Work.

8. The Work was first published on Malaysia on ... And I make this solemn declaration conscientiously believing the same to be true and by virtue of Section 42 of the Copyright Act 1987 and the Statutory Declaration Act 1980.

And I make this solemn declaration conscientiously believing the same to be true and by virtue of Section 42 of the Copyright Act 1987 and the Statutory Declaration Act 1980.

SUBSCRIBED and SOLEMNLY DECLARED }

By Name : ASSOC. PROF. Ts DR. NOOR AZURATI BINTI AHMAD @ SALLEH }

NRIC No. : 790325-01-5032 }

at Johor Bahru }

On this day of, }

Before me,

Commissioner of Oaths

Affixed Seal and Date

## 7. Applicant Declaration

The information which is provided on this form will be user by the University to access the ownership of the intellectual property rights, potential third party claims to those rights and obligations to external sponsors. Incorrect or incomplete detail could lead, the reduction or loss of commercialization revenues, or the invalidation of patent applications.

I declare that the information which I have provided in this form is, to the best of my knowledge and belief, correct and complete and that the contributors named are all the original creators of this invention/design. I also agree to cooperate in seeking or other legal protection in the name of Universiti/Institution and in the commercialization of this invention/design. I also confirm that I have notified the University/Institution of any conflict of interest which may exist in relation to the invention.

eSubmit status :- agree for submission --Name of Inventor/Originator/Co-inventor : SITTI ASMAH BINTI HASSAN

Category : Main Inventor / Main Originator

Approximate % Contribution : 23 %
Acceptance Date : 29-09-2020

eSubmit status :- agree for submission Name of Inventor/Originator/Co-inventor : NORDIANA BINTI MASHROS

Category : Co-Inventor / Co-Originator

Approximate % Contribution : 22 %
Acceptance Date : 29-09-2020

eSubmit status :-- agree for submission --

Name of Inventor/Originator/Co-inventor: NIK AHMAD RIDHWAN BIN NIK MOHD

Category : Co-Inventor / Co-Originator

Approximate % Contribution : 10 %
Acceptance Date : 29-09-2020

eSubmit status :- agree for submission --

Name of Inventor/Originator/Co-inventor: ZAINAB BINTI MOHAMED YUSOF

Category : Co-Inventor / Co-Originator

Approximate % Contribution :5 %
Acceptance Date :30-09-2020

eSubmit status :-- agree for submission -Name of Inventor/Originator/Co-inventor : SHABUDIN BIN MAT
Category : Co-Inventor / Co-Originator

Approximate % Contribution :5 %

Acceptance Date : 30-09-2020

eSubmit status :- agree for submission --

Name of Inventor/Originator/Co-inventor: MOHD HASBULLAH B HJ. IDRIS

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Approximate % Contribution :5 %
Acceptance Date :30-09-2020

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Category : Co-Inventor / Co-Originator

Approximate % Contribution :10 %
Acceptance Date :01-10-2020

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Approximate % Contribution : 20 %
Acceptance Date : 01-10-2020