** MINISTRY OF EDUCATION AND TRAINING**

**FPT UNIVERSITY**

Capstone Project Document

The Traffic Sign Recognition and Training

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| **Capstone Project code** | TSRT |

-Ho Chi Minh City, 01/2014-

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***ACKNOWLEDGEMENTS***

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# Report No. 1 Introduction

## Project Information

* Project name: **The Traffic Sign Recognition and Training**
* Project Code: **TSRT**
* Product Type: **Website, Phone Application**
* Start Date: **January 6th, 2013**
* End Date:

## Introduction

Now a day, the traffic system is expand more than before. Beside that the traffic sign use to control traffic is developed to help road user when join in the traffic. In Vietnam, we have more than 200 traffic signs, this may cause the difficult to people when meet a new traffic sign. On the other hand, internet and smartphone is more popular in Vietnam. Now it’s easy to have a smartphone with internet connection. That is the reason we want to build a system that can help people find information about any traffic sign easily. So people can know more about the sign and traffic rule in each traffic sign, help they join in traffic easier and safer.

## Current System

Below are some current system:

* In the world, the system not support for Vietnam traffic sign.
* In Vietnam, there is just have few application for search traffic sign. And all of them is finding in manually.

## Problem Definition

The disadvantage of current system:

* Difficult to search the traffic sign (unknown the name or not remember the traffic sign).
* Provide few information.

## Proposed Solution

* Develop a recognition system that support auto detect and recognize traffic sign using smartphone’s camera.
* Support more information about the traffic sign.

### **Feature functions**

* + Admin

Admin can manage the system about account, traffic sign and staff, configure systems.

* + System
    - Recognition and give the information, recommend.
    - Support learning new traffic sign.
  + Staff
    - Manage traffic signs and their information, training new traffic signs to systems.
    - Make the statistic
  + Users
    - Make request with/ without condition, update information about traffic signs, make statistic.
    - Report error traffic sign.

### Advantage and disadvantage

The advantage and disadvantage of the proposed solution:

* Advantage: easy to search traffic sign and provide more information.
* Disadvantage: must have internet connection, recognition accuracy not reach 100 percent.

## Functional Requirement

Function requirement of the system are listed as below:

### Create Account

* Normal users can register new account.
* Staffs account are created by admin.

### Admin Management

* Admin can configure system.
* The admin can add/edit/active/inactive staff, users, traffic sign.

### Staff Management

* The staff can add/edit/active/inactive users, traffic sign.

### User Management

* User can search and report traffic sign.
* View search history.

## Role and Responsibility

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
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Table 1: Roles and Responsibility