

BORANG PENGESAHAN STATUS TESIS\*

JUDUL : TRAFFIC (ROUTING AND AUTO-TRACKING) SUBSYSTEM FOR  
PIN-IT SOCIAL NETWORK

SESI PENGAJIAN : 2012 / 2013

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**TRAFFIC (ROUTING AND AUTO-TRACKING) SUBSYSTEM  
FOR PIN-IT SOCIAL NETWORK**

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This report is submitted in partial fulfillment of the requirements for the  
Bachelor of Computer Science (Software Development)

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2013

## DECLARATION

I hereby declare that this project report entitled

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## **DEDICATION**

### ***Dear Allah SWT***

*I can feel I am blessed with your love once I finished this project as a final year student. Syukur, Alhamdulillah.*

### ***Dear Beloved Family***

*Thank you because always supporting me in every part such giving me motivations ideas and accompany me while I am doing this project*

### ***Dear Lecturers and Supervisor***

*Thank you for all your guidance, patience, encouragement and supervision to enable me finish this project.*

### ***Dear Friends***

*Thank you for all the knowledge, support and encouragement and share all the knowledges together.*

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## ABSTRACT

Traffic Subsystem (routing and tracking) for PIN-IT Social Network is a web application that uses Bing Maps from Microsoft as the main display. PIN-IT will bring a new style of social networking that differs from the current web application where in this application, each activity will be shared on Bing Maps. PIN-IT will use geotagging technology, technology which allows users to mark any activity such as status updates, documents, videos, pictures or other media locations. This app has several categories or system breakdown, one of which is 'Traffic Subsystem (and path tracking)'. This subsystem allows users especially motorists directly or indirectly to update on traffic conditions. In addition, drivers will go through to the site can find out the situation in advance so that they can use other plans or other ways to avoid the weather in the area, particularly traffic congestion. Early users can update their status on the traffic situation with the integration with the Global Positioning System (GPS). Users also can choose other locations by using the map provided at the interface of web applications. After the traffic status is stored, it will be automatically posted on the main newsfeed in PIN-IT system. Each driver has a network of users that will show the location of access roads, according to type of bottleneck congestion, accidents, ongoing activities, vehicle stops, roadblocks, and speed traps easier and more interactive. The use of the present manual system will cause many drivers possibility that they get the data may be lost or damaged at any time. The system was developed using Dreamweaver CS5, AJAX JQuery, PHP as the programming language, Bing Map as a basic module to be used as integration, Apache as the server and phpMyAdmin MySQL as the database. The method used to construct traffic monitoring system is Agile Model. Agile model is used as a guide consistently complete each phase of system development.

## ABSTRAK

Subsistem Trafik (lalu-laluan dan penjejakan) untuk PIN-IT Rangkaian Sosial adalah aplikasi web yang menggunakan *Bing Maps* dari Microsoft sebagai paparan utama. PIN-IT akan membawa gaya rangkaian sosial baru yang berbeza berbanding aplikasi web semasa di mana dalam aplikasi ini, setiap aktiviti akan dikongsi pada *Bing Maps*. PIN-IT akan menggunakan teknologi *geotagging*, teknologi di mana ia membenarkan pengguna menandakan apa-apa aktiviti seperti kemas kini status, dokumen, video, gambar atau media lain dengan lokasi. Aplikasi ini mempunyai beberapa kategori atau pecahan sistem, salah satu daripadanya adalah 'Subsistem Trafik (lalu-laluan dan penjejakan)'. Subsistem ini membolehkan pengguna terutamanya pemandu kenderaan secara langsung atau tidak langsung untuk mengemaskini mengenai keadaan trafik. Disamping itu, pemandu yang akan melalui ke tempat tersebut boleh mengetahui keadaan tersebut secara terlebih awal agar mereka boleh menggunakan pelan lain atau jalan lain untuk mengelakkan diri daripada mengharungi di kawasan tersebut terutamanya kesesakan jalan. Pengguna awal boleh mengemaskini status mereka mengenai keadaan trafik tersebut dengan adanya integrasi dengan *Global Positioning System (GPS)*. Pengguna juga boleh memilih lokasi lain dengan menggunakan peta yang disediakan di antaramuka aplikasi web. Selepas status trafik disimpan, ia akan dicatatkan secara automatik di bahagian *Newsfeed* dalam sistem utama PIN-IT. Setiap pemandu pengguna sistem ini mempunyai rangkaian akses yang akan menunjukkan lokasi kesesakan jalan mengikut jenis kesesakan, kemalangan, aktiviti yang sedang berlangsung, kenderaan yang berhenti, sekatan jalan raya, dan perangkap laju dengan lebih mudah dan lebih interaktif. Penggunaan sistem manual sekarang ini akan menyebabkan banyak pemandu kemungkinan data yang mereka perolehi mungkin hilang atau rosak pada bila-bila masa. Sistem ini telah dibangunkan dengan menggunakan Dreamweaver CS5, AJAX JQuery, PHP sebagai bahasa pengaturcaraan, Bing Map sebagai modul asas untuk dijadikan sebagai integrasi, Apache sebagai pelayan dan MySQL phpMyAdmin sebagai pangkalan data. Kaedah yang digunakan untuk membina sistem pemantauan trafik adalah Model Agile. Model Agile ini digunakan sebagai panduan secara konsisten menyelesaikan setiap fasa pembangunan sistem.

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<b>SHORTFORM</b>	<b>DESCRIPTION</b>
FTP	File Transfer Protocol
DBLC	Database Life Cycle
ERD	Entity Relationship Diagram
DBMS	Database Management Systems
LAN	Local Area Network
WAN	Wide Area Network

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## CHAPTER I

### INTRODUCTION

#### 1.1 PROJECT BACKGROUND

Traffic (Routing and Auto-Tracking) Subsystem for Pin-It Social Network (Pin-it Traffic) is networking web-based application systems that can be used in whole country as the current system that they are being use is commonly a manual system that required them to post anything relate with their daily life, and update the latest information from peoples especially friends and family about the current traffics status. The use of this current manual system will cause a lot of waste and the data that they get may be incorrect at any time.

By the development of Traffic (Routing and Auto-Tracking) Subsystem for Pin-It Social Network (Pin-it Traffic), it's sure that the risky problem such as incorrect, miscommunication, sues and further dangerous can be avoid as this system will help them to save all the data in proper way by using a database system. The system field operates on the principle that technology integration within the traffic sector has the great potential to promote a better way of communication. It follows that the increased use of technology can help reduce time and costs by improving efficiencies in the traffic care system.

Most rural drivers in Malaysia, commonly, is still using manual operation for detecting and gathering the traffic information. Hence, Pin-it Traffic system is specifically developed for drivers as it's improve from the manual procedures to a better and useful web-based system. Pin-it Traffic is designed to facilitate the users and traffic management of the roads who is in charge to the driving stress management conditions, ability and regarding the further traffic schedule. Using this application, drivers will do the record data of the traffics follow-up in a better ways. By manual procedures, drivers need to call the person who in-charge with the traffics including JPJ or traffic polices or friends or families who lives to the nearest specific places where the drivers wanted to go to.

As for the current system, they are using the manual system. The drivers who already went through the traffics or been there have already know what is happened to the traffics. Other than that, the drivers especially the travelers have to bring along the map every time they want to travel or reach to the destination, otherwise they will lost. By using Pin-It Traffic system it will provide the modules that will be easily used by the drivers to do the follow-up for each traffics and routes.

This system has server and client which is the past drivers use the mobile phone or mobile laptop or any computer with GPS installed as client to records traffics condition inspection then it will be save to database in server. This application system make the data can deliver faster and cause higher quality care service and a better experience and get better services. Therefore, it will help the future drivers will alert the condition of the traffics.

## **1.2 PROBLEM STATEMENTS**

This system is developed based on problem that faced by current manual system and to fulfill the requirement. The problems are:

a. **Does not have specific procedures to get the information accurately.**

The information from the person who is in-charge to the traffics or live to the nearest place is not really accurate. The future drivers is hoping to that person gives an accurate information but most of them give quaters accurate information.

b. **Waste many phone credits.**

There is a lot of calls made by the future drivers. The drivers usually want to get the information so badly.

c. **Difficult to search the specific destination.**

There are a lot of difficulties in using manual operation which is the drivers (travelers) want to search the destination but the drivers need to locate the route properly by using paper map.

d. **The driver is insecure.**

Sometimes, the vehicles owner forgot to renew their road-tax or driving licenses which is already expired. They need avoid from the roadblocks otherwise they will get sued

e. **Stuck in traffic jams.**

Nowadays many drivers are driving on the road instead of using the public transportations such as trains, taxis, buses and rail-trains. The more vehicles on the road at the particular area, the heavy is the traffic. The drivers really need a shortcut to avoid the traffics otherwise they will stuck for hours.

### 1.3 OBEJECTIVE

The objectives of Pin-it Traffic System are:

**a. To design a better way to inform the drivers about the traffics.**

The system will provide a user post and map module for the drivers and the data required were basically according to the posting manual.

**b. To retrieve the traffics map for the future drivers to know about the condition of the particular place immediately.**

The system will provide a view traffic map module for the future drivers so that they know the about the condition of the right place and particular place immediately without calling the person who in charge about the traffics.

**c. To gather the statistics of the traffics according to the month**

Some drivers are obses to gather the information about the traffics month by month. They usually gather the information through statistic so that they know which road they will using next time to avoid the traffics. So, this system also will develop the monthly statistics for those who really obses with the traffics statistic.

## 1.4 Scope

### 1.4.1 User

The users (Pin-it Members) and their roles in the proposed system:

#### a. Users

Users usually view the maps just in-case they want to let the friends or families know about the current traffics. Sometimes, the non-Pinit member also want to let the drivers know about the current traffics and conditions. This user able to view or post any traffics as they want. This user also able to search the place through name, or get the routes through the map and the directions from place A to place B.

#### b. Past Drivers

Past Drivers will inform about the current traffics which there is no records yet about the current traffics, through posting the information into the system by dragging the map and the messages they want to tell.

#### c. Future Drivers

Future drivers will view the latest records about the particular places which past drivers already informed. They are able to view the map which past drivers or users posted so that the future drivers will know the exact place.

### **1.4.2 Module / Function**

The proposed modules and their respective functions:

1. Map Module
2. User Post Module
3. Search and Query
4. Statistics and Setting

## **1.5 PROJECT SIGNIFICANCE**

This system will most benefits the drivers which they need this system to be used by travelers and make their routine job more efficient and they can ensure that the data they have to keep is more accurate by using this system

## **1.6 CONCLUSION**

This chapter contains details description of the propose project called Traffic (Routing and Auto-Tracking) Subsystem for Pin-It Social Network (Pin-it Traffic). From this chapter, all problems have been identified and the scope and objectives of project has clearly defined.