OCTOBER 2018

University of Malaya
50603, Kuala Lumpur

MUTRFC 2018

13th MALAYSIAN UNIVERSITIES TRANSPORT RESEARCH FORUM CONFERENCE

THEME
RETHINGKING MOBILITY: TOWARDS AN INCLUSIVE & INTEGRATED TRANSPORTATION SYSTEM

Organized by

UNIVERSITY OF MALAYA

Centre for Transportation Research

Transportation Science Society of Malaysia

TENTATIVE

3rd October 2018 (Wednesday)

Time	Activities	Descriptions
8:30 am	Registration	
9:10 am	Welcoming remarks	**Ir. Dr. Mohamed Rehan Karim** President Transportation Science Society of Malaysia (TSSM)
9:30 am	Opening ceremony	**YB Ahmad Fahmi bin Mohamed Fadzil** MP of Lembah Pantai, Kuala Lumpur
10:00 am	Keynote 1	Challenges in Todays Mobility, Towards an Inclusive and Integrated Transportation System **Professor Andree Woodcock**, Coventry University, UK
10:30 am	Keynote 2	Rethinking Mobility: Towards An Inclusive And Integrated Transportation System **Ir. Dr. Muhammad Marizwan bin Abdul Manan** Head of Intelligent Transport and System Development Unit (ITS) Malaysian Institute of Road Safety Research (MIROS)
11:00 am	**Photo Session & Tea Break**	
11:30 am	Paper presentations Incl. Q&A session	Session chairperson: Dr Mohd Rasdan Ibrahim
1:00 pm	**Lunch Break**	
2:30 pm	Keynote 3	Introduction to Shared Space **Ir. Dr. Yuen Choon Wah** Head Centre for Transportation Research (CTR) University of Malaya
3:30 pm	Paper presentations Incl. Q&A session	Session chairperson: Dr Onn Chiu Chuen
5:00 pm	**Adjourned**	

TENTATIVE

4th October 2018 (Thursday)

Time	Activities	Descriptions
8:30 am	Registration	Assemble at Foyer, Fac. of Built Environment University of Malaya
9:00 am		Technical Visit to Air Traffic Control Centre at Subang Jaya
12.30 pm		**Dismiss**

COMMITTEE MEMBERS

Advisor	Ir. Dr. Mohamed Rehan Karim Prof. Dr. Jamilah Mohamad AP Dr Sumiani Yusof
Chairman	Dr. Yong Adilah Shamsul Harumain Dr. Suhana Koting
Treasurer	Nik Ibtishamiah Ibrahim
Secretary	Wan Asma Diana Wan Roselan
Promotion	Ir. Dr. Yuen Choon Wah Mirahida
Technical & Logistic	Dr. Onn Chiu Chuen Dr. Mohd Rasdan Ibrahim En. Hj Mohd Khairul Anwar Abu
Networking	AP Dr. Rosilawati Zainol
Food & Bevearage	Dr Suhana Koting Nik Ibtishamiah Ibrahim
Publication	Dr. Payam Syafigh AP Dr Nor Hafizah Ramli @ Sulong
Program & Registration	Dr. Nuruol Syuhadaa Mohd
Paper Reviewer	TSSM Team

FOREWORD BY PRESIDENT OF TSSM

Assalamu'alaikum Warahmatullahi Wabarakatuh and Salam Sejahtera,

Alhamdulillah, first and foremost, I would like to congratulate and give my sincere thanks and appreciation to the TSSM Organising Committee led by Dr. Adilah and the Centre for Transportation Research (CTR), University of Malaya for their effort in organising this event within such a short duration. Their enthusiasm and motivation towards making this event a reality and a success is highly appreciated. The Malaysian Universities Transport Research Forum Conference (*MUTRFC*) was first created and organised by Transportation Science Society of Malaysia (*TSSM*) with the primary aim of providing a platform for transportation researchers i.e. students (post-graduates and undergraduates), academic staff and practitioners, to share and assist one another in enhancing their research endeavour. The first *MUTRFC* was held at University of Malaya (UM) in 2002 with the theme of "Transport Research towards National Development". Today, we have reached the 13th *MUTRFC* which is co-organised by the Centre for Transportation Research (CTR) University of Malaya, in association with Transportation Science Society of Malaysia (TSSM), Dept. of Town & Regional Planning, Faculty of Built Environment, UM and AHRC Women Mobility Research Group, UK. The theme for this 2 days conference is "Rethinking Mobility: Towards an Inclusive and Integrated Transportation System" will provide the opportunity for researchers and transport practitioners to exchange and share their views and ideas on the actual issues and challenges related to transportation, which hopefully will benefit all of us. Participation in this conference is open to all local as well as foreign university students, both undergraduate and postgraduate, as our target is to nurture young researchers to become experts in transportation related field, through sharing of expertise, ideas and knowledge with academics and transport practitioners in Malaysia and other countries.

The conference also hopes to foster and support excellence in transportation related research and practise and stimulating the professional collaboration in all aspects of transportation research.

Last but not least, again I would like to thank the organising committee for their efforts and enthusiasm in organising this conference. I have no doubt that the 13th *MUTRF* Conference will be as successful as, if not more successful than, the previous conferences.

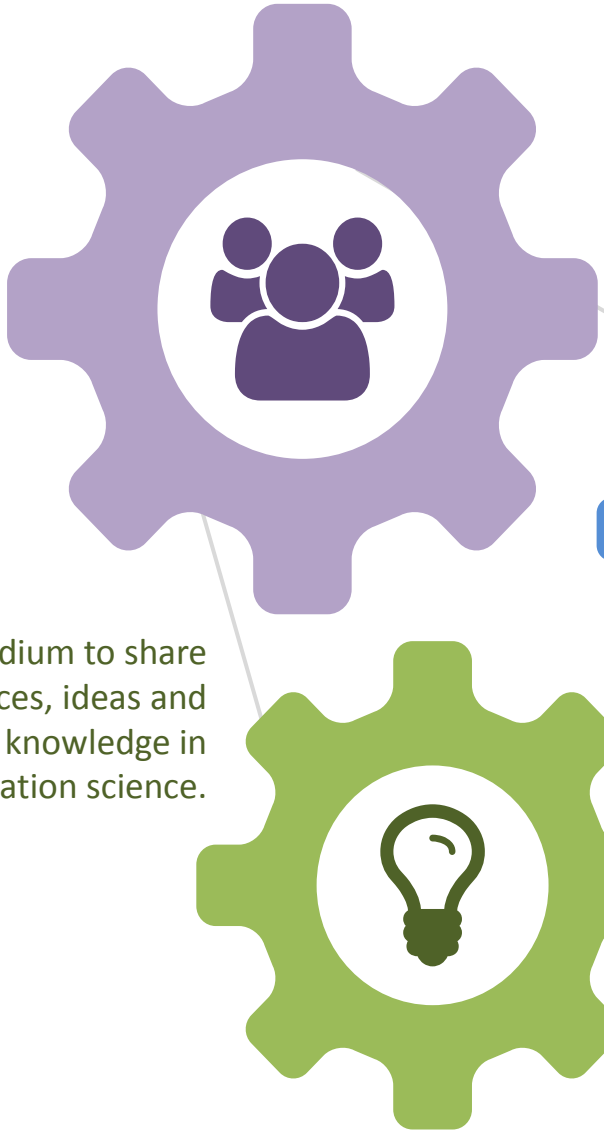
Finally, I would like to wish all participants a successful and fruitful discussion ahead.

Thank you

DR. MOHAMED REHAN KARIM, P.Eng.
President,
Transportation Science Society of Malaysia

AIM & OBJECTIVE

The aim of this conference is to encourage all postgraduate students in the field of transportation and also final year undergraduate students to present their research works and receive feedbacks from experts in the field. Other objectives of this conference are:



To encourage collaborative research amongst researchers and professionals in the transportation field.

As a medium to share experiences, ideas and technical knowledge in transportation science.

As an avenue for active discussions amongst researchers and practitioners in the transportation field.

KEYNOTE SPEAKERS

Andree Woodcock, Professor, Institute for Future Transport and Cities, Conventry University, UK

Prof. Andree obtained her BSc in Psychology and Social Biology with an MSc in Ergonomics from UCL. Her PhD concerned an investigation of the use of ergonomics in automotive concept design acquired from Loughborough University. She has been awarded grants of more than £15 million since 1999 to date. Those grants are mainly from RCUK and in collaboration with the UK and European partners. These grants include research on the design of polysensory school environments for children with ASD, an analysis of the involvement of children in the redesign of schools as part of the Building Schools for the Future Programme, the use of social networking by informal groups, the spontaneous, voluntary contributions of citizens to urban regeneration (VoiceYourView), and the development of a patient held record system (MyCare). She is engaged in primarily transport related research as theme lead for Future Cities in the Research Institute in Transport and Future Cities. Among the research carried out include looking at the in car safety and security of female car occupants, an analysis of HMI of electric vehicles, a stakeholder analysis of an electric bus, and a review of social transport. Currently, she leads the H2020CIVITAS SUITS project, which will run for 4 years, and has 23 partners across EU. This project aim s to increase the capacity and capability of small to medium local authorities to design and implement sustainable transport measures. She is about to commence the 18 months AHRC network bid looking at women's mobility problems in Malaysia and Pakistan.

Ir. Dr Muhammad Marizwan bin Abdul Manan, Intelligent Transportation and System Development Unit (ITS), MIROS

Ir. Dr Muhammad Marizwan bin Abdul Manan is a registered, practicing Professional Engineer in Malaysia (BEM). He graduated with a Bachelor of Science in Civil Engineering (B.Sc) from Arizona State University, USA, in the year 2000 and obtained Masters (M.Sc.) in Highway and Transportation from University Putra Malaysia in 2005. His career in research started at the Malaysian Institute of Road Safety Research (MIROS) in mid 2007. He obtained Advance Diploma in Road Traffic Safety in 2008 from Lund University and later his PhD from the same University in 2014. He has experience of more than 8 years in road planning, design and construction as he works as consultants in various established consultancy firms in Malaysia. He is also a pioneered in the establishment of MIROS administration (building renovation), operation & research activity in 2007 and managed to published 7 high impact research articles on vulnerable road users safety and speaks at numerous international forums and conferences. He was elected by the government to be a lab member for the National Key Result Area (NKRA) for Urban Public Transport. Ir. Dr Murhammad Marizwan has carried out countless crash investigation and road safety audit to various government and non-government agencies and has also co-developed the nation's first Geometric Guidelines for Exclusive Motorcycle Lane with the Ministry of Works under the Road Division of the Department of Road Works Malaysia. Currently, he is the Head of Intelligent Transportation and System Development Unit (ITS), Road Safety Engineering and Environmental Research Center (REER), Malaysian Institute of Road Safety Research (MIROS).

Ir. Dr Yuen Choon Wah, Centre for Transportation Research, University Malaya

Ir. Dr Yuen Choon Wah graduated from the University of Malaya in Transport Engineering and attached as a Senior Lecturer at the same university since 2014. He is also a registered Professional Engineer in Board of Engineers, Malaysia, which carries the title Ir. Years of experiences in conducting research that focuses on sustainable transport and intelligent transport system (ITS) have instilled him with proficient quantitative and analytic skill. He is currently Head for Transportation Research Centre in the University of Malaya, a research centre that provides technical opinion and consultancy services regarding Transport Engineering, besides involve actively in R&D project. His areas of expertise are traffic engineering, traffic safety, road user behaviour, sustainable transport & ITS.

Time & Location	Ref. No.	Title	Author/Presenter
11:30AM - 1:00PM at Sidang Karyawan, Level 2, Mercu Alam Bina	P010	A Theoretical Review on the Effect of Road hump deign on Speed of Vehicles in Campus Area	Nur Najiah Azhani ROSLI , Abdul Azeez KADAR HAMSA
	P011	UM Traffic Study: Possibility of Bicycle Lane and Shared Lane in UM Campus	YUEN Choon Wah, Jonathan GAN Jia Jiun, FOO Shu Ping, Sumiani YUSOFF
	P012	A Theoretical Review of Land Use Characteristics on the Use of Rail-Based Public Transport in Kuala Lumpur	Fatahsha Amira BAKRI , Abdul Azeez KADAR HAMSA
	P013	Preliminary Assessment of Drop-off and Pick-up (D&P) Zone in School Zone in Selangor	Sharifah Allyana SYED MOHAMED RAHIM
	P014	Parental Fear in Allowing Malaysian Students Walking to Malaysian Urban Schools	Deckless@Chamit ANAK JAMPANG
	P015	Modelling the Effect of New Road Connection in a Busy Urban Area	Noorfakhriah YAAKUB
3:30PM - 5:00PM at Sidang Karyawan, Level 2, Mercu Alam Bina	P016	Factors Affecting Pedestrian Satisfaction for Traffic and Non-Traffic Functions on Streets in Tourism Sites - A Case in Melaka, Malaysia	Nabila ABDUL GHANI, Muhammad Zaly Shah MUHAMMAD HUSSEIN, Zuhra Junaida MOHAMAD HUSNY HAMID, Safizahanin MOKHTAR, Murtanti Jani RAHAYU' Erma Fitria RINI
	P017	CrossBorder Disabled Facilities Level of Service (DFLOS) at Customs, Immigration and Quarantine Complex (CIQ), Bangunan Sultan Iskandar, Johor Bahru, Malaysia	Safizahanin MOKHTAR, Zakaria BAKAR, Nabila ABDUL GHANI, Gobi Krishna A/L SINNIAH
	P018	Are Malaysia Prepared for Transit-Oriented Development?	Aminah Wati ABDULLAH, Jezan MD DIAH, Yusfida Ayu ABDULLAH, Zulkifli AHMAD ZAKI
	P019	Handover Decision Technique for Vehicular Ad Hoc Network (VANET) in Hybrid Communication Mode for Highway Environment.	Siti Sabariah SALIHIN, Rafidah MD NOOR, Liyth A. NISSIRAT, Ismail AHMEDY
	P020	A Theoretical Overview On The Effects Of Road Hump On Traffic Speed And Traffic Noise In Institutional Area	Nur Asiah MUSTAFA, Abdul Azeez KADAR HAMSA
	P021	Challenges Faced By Older Pilgrims And Pilgrims With Special Needs In Performing Haj From An Accessibility Perspective	Rosilawati ZAINOL
	P022	Influence of Travel Time And Travel Cost on Mode Choice Preferences Prediction Models: A Case Study Of Klang Valley, Malaysia	Suhana KOTING, Mohamed Rehan KARIM, Nik Ibtishamiah IBRAHIM, Mohd Rasdan IBRAHIM, YUEN Choon Wah, ONN Chiu Chuen

Ref. No : P010

Title:

A THEORETICAL REVIEW ON THE EFFECT OF ROAD HUMP DESIGN ON SPEED OF VEHICLES IN CAMPUS AREA

Nur Najiah Azhani ROSLI [a], Abdul Azeez KADAR HAMSA[b]

[a] Master Students, Kulliyyah of Architecture and Environmental Design, International Islamic University Malaysia, Jalan Gombak, 50728 Kuala Lumpur, Malaysia

E-mail: nazhanie@gmail.com

[b] Associate Professor, Kulliyyah of Architecture and Environmental Design, International Islamic University Malaysia, Jalan Gombak, 50728 Kuala Lumpur, Malaysia

E-mail: azeez@iium.edu.my

Road safety in campus are crucial as most of the population namely students and staffs would travel around by walking to class or office. Traffic speed is observed to be one of the main-transport related determinants that could harm the safety of the population inside the university area. By that, road humps are introduced primarily on the main road of the campus area. It is considered effective as a traffic calming measure in reducing speed. Nevertheless, the reduction in speed depends on the design of the road humps. For that, this theoretical review will explain the theories relating road hump design with vehicle speed. Several related literatures, past and present studies regarding road hump design and vehicle speed are used as the primary data for this paper. The obtained information are then analysed by comparing variety of related studies, investigate the research objectives and deriving findings from the past research papers. Expected findings from this study will entails new research directions that could enhance this field of study.

Keywords:

Road Safety, Traffic Speed, Traffic Calming, Reduction of Speed, Campus Area.

Ref. No : P011

Title:
UM TRAFFIC STUDY: POSSIBILITY OF BICYCLE LANE AND SHARED LANE IN UM CAMPUS

Yuen Choon Wah, Jonathan Gan Jia Jiun, Foo Shu Ping, Sumiani Yusoff
[a,b,c, d] Centre of Transportation Research, Department of Civil Engineering, Faculty of Engineering, University of Malaya.
[a] E-mail: jj_gan@hotmail.com
[b] E-mail: shupingfoo93@gmail.com
[c] E-mail: yuencw@um.edu.my
[d] E-mail: sumiani@um.edu.my

Urban mobility is showing an increase in motorized vehicles which leads to several issues such as lack of parking, air pollution and traffic congestion. University of Malaya, located in the city of Kuala Lumpur is also inescapable from facing those problems, which requires attention to be resolved. Bicycling is a potential alternative to be adopted within university campus to encourage sustainable transportation culture. Good infrastructure is one of the key transportation elements to encourage people to cycle. The objective of this research is to foresee the possibility of create either an exclusive bicycle lane or shared lane in UM campus. The study area cover the centre of UM campus and divided into 5 zones. Site surveys were conducted to evaluate current road condition and cycling infrastructure. Any existing facilities or undesirable road conditions were recorded and photographed. Additional observation such as cyclist behaviour are also noted down. Classified traffic count were conducted to determine the level of service (LOS) at several key locations in UM campus. The traffic count was factorized to Passenger Car Unit (PCU) follow the guideline by U.S. Highway Capacity Manual and Malaysian Highway Capacity Manual. Capacity analyses of road performance was assessed to determinate suitable type of bicycle lanes in UM campus. This data enables evaluation of feasibility and impact of create either exclusive bicycle lane or shared lane on existing roads. Furthermore, the design of bicycle infrastructure, which depends on users' demand, traffic condition, road condition and other limitations, are covered in this paper. A complete network of bicycle route in UM campus with a combination of exclusive bicycle lane and shared lane is proposed based on the analysis and evaluation conducted.

Keywords: cyclist, shared lane, exclusive lane, traffic, sustainable transportation, campus

Ref. No : P012

Title:

A THEORETICAL REVIEW OF LAND USE CHARACTERISTICS ON THE USE OF RAIL-BASED PUBLIC TRANSPORT IN KUALA LUMPUR

Fatahsha Amira BAKRI [a], Abdul Azeez KADAR HAMSA[b]

[a] Postgraduate Student, Department of Urban and Regional Planning, Kulliyyah of Architecture and Environmental Design, International Islamic University Malaysia, Jalan Gombak, 50728 Kuala Lumpur.

E-mail: fatahsha.amira@gmail.com

[b] Associate Professor, Department of Urban and Regional Planning, Kulliyyah of Architecture and Environmental Design, International Islamic University Malaysia, Jalan Gombak, 50728 Kuala Lumpur.

E-mail: azeez@iium.edu.my

Rapid population and motorization growth in urbanized areas of Kuala Lumpur presents many transportation and land use challenges for policy makers. The role of public transport is very important to respond on the increase of mobility needs. The effective transportation networks that incorporate public transit make cities more livable by easing commute and transportation needs and increasing accessibility. However, with the increase in travel distance along with the affordability of owning private vehicles has induced commuters to use private transportation, especially cars for work and business trip. On top of that, with a poor public transportation such as lack of coverage, poor route alignment and poor design of pedestrian infrastructure has further increased the use of private transport in urban areas. It is widely agreed that transit-oriented development can increase the use of public transit system through careful planning and design of public transportation system, pedestrian and bicycle facilities and high density mixed use development around the rail stations. The reduction in the number of trips, trip length (person and vehicle miles) by private transport and increase in passenger ridership by public transportation through transit-oriented development has been realized in many developed countries. In the recent past, transit-oriented development has gained momentum in many developing countries because of the benefits that it renders in relieving congestion, pollution and protecting from further environmental degradation. In Malaysia, new initiatives and multiple efforts have been taken by the government authorities to improve the public transportation system under the National Key Result Areas (NKRA) especially in Kuala Lumpur in an attempt to shift from the use of private to public transportation. The ongoing construction of Mass Rapid Transit (MRT), Bus Rapid Transit (BRT), and the extension of Light Rail Transit (LRT) in Klang Valley is some of the major public transportation projects which are undertaken to address the growing travel demand of the population. The aim of this paper is to synthesize and critically evaluate the effects of land use density and diversity on rail-based public transport ridership from literature review. This paper analyses the existing literature on Transit-Oriented Development (TOD), its elements and characteristics as well as its successful application in few selected countries to ascertain the extent of land use characteristics effects on the use of rail-based public transit. Three LRT stations within Ampang line are chosen to analyse the effects of land use characteristics on the LRT ridership of these stations. The description on the land use characteristics such as density, diversity and different land use sizes around the selected LRT stations are shown in this paper. Finally, recommendations are made particularly in the context of improving LRT ridership in Kuala Lumpur.

Keywords:

land use characteristics, density, diversity, public transportation, Kuala Lumpur

Ref. No : P013

Title:
PRELIMINARY ASSESSMENT OF DROP-OFF AND PICK-UP (D&P) ZONE IN SCHOOL ZONE IN SELANGOR

Sharifah Allyana Syed Mohamed Rahim
Research Officer
Malaysian Institute of Road Safety (MIROS), Lot 125-135 Jalan TKS 1, Taman Kajang Sentral, 43000 Kajang, Selangor Darul Ehsan
Email: allyana@miros.gov.my

Statistics from Royal Malaysian Police (RMP) show that there were 228 accidents that occurred in school areas. One of the facility to improve school children safety in school area is drop-off and pick-up zone. Drop-off and pick-up zone in school zone is defined as an area beyond the road reserve or within the school boundary that is dedicated for dropping off and picking up school children by private vehicles, vans and school buses. These study objectives are to identify the availability of designated Drop-Off and Pick-Up (D&P), to assess the utilization of designated D&P and to determine the trend of dropping off student within the school zone. A study was conducted in Selangor found that out of 60 schools, D&P are only available at 20 schools. From this 20 schools, 11 schools with D&P is available in primary school and the remaining 9 available in secondary school. In terms of utilization of D&P at these schools, 49% of the observed school children used this facility. At school with D&P also the remaining school children were picked up by their vehicles outside the D&P area with 31% at nearside of the school and 20% at the far side of the school. The observation also shows that the utilization in school with D&P is higher at secondary school with 52% as compared to primary school only 46%. The study also identified that 11 out of 20 schools with D&P are located on primary streets. However, D&P utilization by road type is highest at school located on the federal / state road (67%). In this study, it shows that the D&P utilization for dropping and picking up school children can be further increase if parents/bus drivers do not wait in D&P. With the high and the effective D&P utilization, it will lower the risk of school children involved in an accident while crossing the road.

Keywords: School zone, school children, drop-off

Ref. No : P014

Title:
PARENTAL FEAR IN ALLOWING MALAYSIAN STUDENTS WALKING TO MALAYSIAN URBAN SCHOOLS

Deckels @ Chamit Anak Jampang
Univeriti Teknologi Malaysia, Johor Bahru
Email: deckleschamit@petronas.com, deckleschamit@yahoo.com

Statistics from Royal Malaysian Police (RMP) show that there were 228 accidents that occurred in school areas. One of the facility to improve school children safety in school area is drop-off and pick-up zone. Drop-off and pick-up zone in school zone is defined as an area beyond the road reserve or within the school boundary that is dedicated for dropping off and picking up school children by private vehicles, vans and school buses. These study objectives are to identify the availability of designated Drop-Off and Pick-Up (D&P), to assess the utilization of designated D&P and to determine the trend of dropping off student within the school zone. A study was conducted in Selangor found that out of 60 schools, D&P are only available at 20 schools. From this 20 schools, 11 schools with D&P is available in primary school and the remaining 9 available in secondary school. In terms of utilization of D&P at these schools, 49% of the observed school children used this facility. At school with D&P also the remaining school children were picked up by their vehicles outside the D&P area with 31% at nearside of the school and 20% at the far side of the school. The observation also shows that the utilization in school with D&P is higher at secondary school with 52% as compared to primary school only 46%. The study also identified that 11 out of 20 schools with D&P are located on primary streets. However, D&P utilization by road type is highest at school located on the federal / state road (67%). In this study, it shows that the D&P utilization for dropping and picking up school children can be further increase if parents/bus drivers do not wait in D&P. With the high and the effective D&P utilization, it will lower the risk of school children involved in an accident while crossing the road.

Keywords:
School zone, school children, drop-off

Ref. No : P015

Title:
MODELLING THE EFFECT OF NEW ROAD CONNECTION IN A BUSY URBAN AREA.

Noorfakhriah Yaakub[a], Ir. Chin Kar Keong[b]
[a,b] Atur Trafik Sdn. Bhd.
Email: noorfakhriah@aturtrafik.com.my

Road infrastructure plays an important role in connecting people to jobs and other activities. A normal weekday traffic usually consists of more than 60% home-based trips with peak hours ranging from 7:00 to 10:00 am during morning peak and the reversed "to home" trips from 4:00 to 7:00 pm during afternoon peak. Road congestion in an urban area is a normal sighting in Kuala Lumpur, where the mode share is only 25% for Public Transport and 75% for Private Vehicle. This paper presents the effect of introducing a new road connection in a busy urban area with its road system already reaching the design capacity. The Urban Area selected for this Study is the Government Complex at Jalan Tuanku Abdul Halim or JTAH (previously known as Jalan Duta). In the future, the neighbouring area is expected to be developed to a new township development which will generate and attract more traffic to the new road as well as the surrounding road networks. The proposed new road connection is a missing link to regional highways that run through, but not serving directly to the Study Area. This paper will discuss the traffic demand and forecasting using the classical four-step model and the modelling of traffic equilibrium model using the EMME 4 software. The model is calibrated using available traffic data at junctions and road sections collected from various sources including the Road Traffic Volume Malaysia (RTVM) by the Ministry of Works. The methodology used in the study is based on published guidelines by the Department of Works (Arahan Teknik Jalan), the Road Engineering Association Malaysia (TIA Guideline) and the Local Authorities (DBKL). The EMME 4 Model produced output in terms of traffic volume and travel time at the road networks. The output was then used to recommend viable solution in order to mitigate traffic congestion in the Study Area.

Keywords:
Road Congestion, Urban Area, Demand and Forecasting, Traffic Modelling, EMME 4

Ref. No : P016

Title:

FACTORS AFFECTING PEDESTRIAN SATISFACTION FOR TRAFFIC AND NON-TRAFFIC FUNCTIONS ON STREETS IN TOURISM SITES - A CASE IN MELAKA, MALAYSIA

Nabila Abdul Ghani[a], Muhammad Zaly Shah Muhammad Hussein[b], Zuhra Junaida Mohamad Husny Hamid[c], Safizahanin Mokhtar[d], Murtanti Jani Rahayu[e] , Erma Fitria Rini[f]

[a,b,c,d] Department of Urban and Regional Planning, Faculty of Built Environment, UTM

[e,f] Urban and Regional Planning Department, Engineering Faculty, Sebelas Maret University, Indonesia.

Email: nabilaaghani@utm.my

In promoting a sustainable tourism development in urban areas, the introduction of measures to minimize the use of cars from street networks in tourism sites and to prioritize pedestrians is required. To support such a tourism sites transportation plan measures, it is essential to develop a method to evaluate the level of service that pedestrians could enjoy while walking on the street network. In this paper, as an initial effort to understand tourist's walking experience, we analyzed the street network in the Melaka city center, Malaysia which is a historical tourism site that also has commercial functions, by using the data of pedestrians' perception. The objective of this paper is to identify the significant factors affecting pedestrian satisfaction for different street characteristics; Cultural Street, Shopping Street and Religious Street in the study area. The indicators for traffic functions include Safety, Security, Accessibility, Facility and Mobility. The indicators for tourism functions include Attractiveness, Enjoyment, Convenient and Comfort. A questionnaire survey was conducted among 373 domestic and international tourists who walked along major streets in the core zone of Melaka World Heritage Site, by using convenient sampling approach. It was found that the factors affecting the pedestrian satisfaction differ for each type of street. The most important factor for a Cultural Street is Facility, for a Shopping Street is Comfort and for a Religious Street is Enjoyment. This study found out five (5) interesting findings regarding the differences of the street. (1) For traffic function, the result shows that Safety and Security factors are not related to all streets. (2) For traffic function, Accessibility and Facility factors are related to all streets. (3) For tourism function, the result shows that Attractiveness and Enjoyment factors for Cultural Street and Shopping Street are not related. On the other hand, the tendency is quite different for Religious Street. Attractiveness and Enjoyment factors are found out to be related to Religious Street. (4) Convenient and Comfort factors are related to Cultural Street and Shopping Street, but not Religious Street for tourism function. (5) Mobility factor and traffic function are not related to the Shopping Street. From the results of Structural Equation Modeling (SEM) analysis, it is clearly shown that there is a different characteristic or role of streets at the study area in terms of significant parameters.

Keywords:

Pedestrian Satisfaction, Traffic, Tourism, Cultural Street, Shopping Street, Religious Street

Ref. No : P017

Title:
CROSS-BORDER DISABLED FACILITIES LEVEL OF SERVICE (DFLOS) AT CUSTOMS, IMMIGRATION AND QUARANTINE COMPLEX (CIQ), BANGUNAN SULTAN ISKANDAR, JOHOR BAHRU, MALAYSIA

Safizahanin Mokhtar [a], Zakaria Bakar [b], Nabila Abdul Ghani [c], Gobi Krishna a/l Sinniah [d], Erma Fitria Rini [e]

[a,b,c,d] Department of Urban and Regional Planning, Faculty of Built Environment, Universiti Teknologi Malaysia
[e] Urban and Regional Planning Department, Engineering Faculty, Sebelas Maret University, Indonesia.
Email: safizahanin@utm.my

Research on evaluating Level of Service (LOS) on various themes has been extensively conducted in the past decade. This study strives to apply and examine the cross-border Disabled Facilities Level of Service (DFLOS). The 4 main DFLOS indicators and 28 variables; accessibility, comfort, safety and security and passenger information were used to show the interrelated relationship between to disabled passenger at Johor Bahru Customs, Immigration and Quarantine Complex (CIQ) terminal. In addition, audit field observation form from various guidelines also used to compare the provision of existing disabled facilities at the terminal. This study found that the overall DFLOS at CIQ was B. Indicators safety and security scored the highest compared to passengers' comfort for the overall existing facilities provision at CIQ. This study showed that DFLOS method has successfully evaluated the quality of existing disabled passenger facilities in the public building which can be applied as a benchmarking tool to compare with standard guidelines for future improvement.

Keywords:
Level of Service (LOS), Disabled facilities and Transport Terminal

Ref. No : P018

Title:

ARE MALAYSIA PREPARED FOR TRANSIT-ORIENTED DEVELOPMENT?

Aminah Wati ABDULLAH [a], Jezan MD DIAH [b], Yusfida Ayu ABDULLAH [c], Zulkifli AHMAD ZAKI [d]

[a,b] Malaysia Institute of Transport (MITRANS) Universiti Teknologi MARA, 40450 Shah Alam, Selangor
[a] awati.abdullah@yahoo.com
[b] jezan@salam.uitm.edu.my

[c,d] Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Puncak Alam Campus, 42300 Kuala Selangor, Selangor
[c] yusfida@salam.uitm.edu.my
[d] zulkifliahmadzaki@salam.uitm

Most of the city is designed for cars and urban area is built with more roads, hence attract traffic to the urban area and situation will lead to congestion. The idea of transit-oriented development with mix development of residential, commercial and facilities located within walking distance helps to promote the shift from private vehicle to public transport ease the number of cars on the road. Transit-oriented development was firstly introduced in the 1980s in the United States and to date, many studies on transit-oriented development had been discussed. In Malaysia, focusing Greater Kuala Lumpur/Klang Valley (GKL/KV), increasing public transport mode share is one of the main focus to ease the urban congestion and improve quality of life, but the issues such as public transport inefficiency and shorter travel time compared to private transport attract more private car on the road. Also, the improvement of current train in GKL/KV such as the extension of light rail train and new train line creates the need for implementation of transit oriented development in order to integrate transport and land use planning as commuters that close to rail line usually have a better access to workplace and residential area. However the implementation of transit-oriented development concept in GKL/KV might be a real struggle. This paper will discuss on the significant of transit-oriented development in GKL/KV such as policies and guidelines that related to transit-oriented development, such Eleventh Malaysia Plan, National Urbanisation Policy, National Physical Plan, National land public transport master plan, Greater Kuala Lumpur/Klang Valley Land Public Transport Master Plan and Structure Plan Selangor 2035. These policies reflect that the needs of transit-oriented development idea and being considerate in the strategy of public transport improvement. Comparison on local and international study of transit-oriented development that had been carried out helps in positioning the direction on future studies of transit-oriented development.

Keywords:
transit-oriented development, land-use, planning, sustainable, rail-based station

Ref. No : P019

Title:

HANDOVER DECISION TECHNIQUE FOR VEHICULAR AD HOC NETWORK (VANET) IN HYBRID COMMUNICATION MODE FOR HIGHWAY ENVIRONMENT

Siti Sabariah Salihin [a], Rafidah Md Noor [b], Liyth A. Nissirat [c], Ismail Ahmedy [d],

[a,b,d] Department Department of Computer System and Technology, Faculty of Science Computer and Information Technology, University of Malaya, Kuala Lumpur Malaysia
Email: sitisabariah@siswa.um.edu.my, fidah@um.edu.my, ismailahmedy@um.edu.my
[c] Faculty of Computer And Communication Engineering, University of Jadara, Jordan
Email: liythn@jadara.edu.jo

Vehicular Ad-Hoc Networks (VANET), a major component of the Intelligent Transport System (ITS), aim to contribute towards safer and efficient road traffic. In this paper, we presents the framework of handover scheme for VANET in hybrid communication mode over Long Term Evolution –Advanced (LTE-A) for highway environment.Time Dependent Handover Control Parameter schemes for Vehicles to Vehicles (V2V) communication network and Vehicles to Infrastructure (V2I) communication network will be proposes by developing Handover Mathematical Model to provide comprehensive understanding of the parameters influencing the VANET and their consequences. In addition, we propose Multiple Dimension Traffic Model, by developing VANET over LTE-A Model using Variational Method. The main contribution of this paper is the formulation on the optimization using integration between VANET over LTE-A Model and Handover Model which both develop by a mathematical model that considers the effect of the statistical properties of vehicles availability and velocities in the highway on the handover probability in the network. The integration of VANET over LTE-A Model and Handover Decision Model will carry out using MATLAB software to produce handover optimization scheme.The optimization results expected to show that the statistical properties of vehicles availability and velocities would induce time dependence on the handover probabilities and throughput. Furthermore, the comprehensive simulation tool using ns3 will be develops to evaluate the performance of the propose handover scheme VANET over LTE-A system under different conditions. The expected comprehensive simulation tool results using ns3 software, obtained for several cases, scenarios, conditions and velocities will be graphically compare with other methods. The simulation results expected to show that the propose handover scheme will be able to be the optimum solution model approach to the seamless Quality of Services (QoS) performances in all scenarios, conditions and velocities for VANET in hybrid communication mode over LTE-A.

Keywords:
Vehicular Ad-hoc Network (VANET); Long Term Evolution Advanced (LTE-A); Handover; Quality of Service (QoS)

Ref. No : P020

TITLE:
A THEORETICAL OVERVIEW ON THE EFFECTS OF ROAD HUMP ON TRAFFIC SPEED AND TRAFFIC NOISE IN INSTITUTIONAL AREA

Asiah MUSTAFA [a], Abdul Azeez KADAR HAMSA[b]
[a] Postgraduate Student, Department of Urban and Regional Planning, Kulliyyah of Architecture and Environmental Design, International Islamic University Malaysia, Jalan Gombak, 50728 Kuala Lumpur.
E-mail: asiahmustafa92@gmail.com

[b] Associate Professor, Department of Urban and Regional Planning, Kulliyyah of Architecture and Environmental Design, International Islamic University Malaysia, Jalan Gombak, 50728 Kuala Lumpur.
E-mail: azeez@iium.edu.my

Traffic speed and noise are the major transport-related determinants in affecting the quality of learning and research environment in a University. The calm and safe environmental set-up of a University is very crucial in creating a conducive learning and research atmosphere on-campus. The increasing number of private vehicles on-campus has resulted in increase in speed and noise level and thus has attributing towards increase in environmental pollution on-campus. Road humps are considered effective as a traffic calming measure in reducing speed and noise level of the moving vehicles. However, the imminent reduction in speed of the vehicles depends very much on the profiles of a road hump in terms of its width, length and height. The difference in the profiles of the road hump will cause changing driving behavior of the users especially when approaching a road hump. Thus, this paper is part of ongoing study to analyse the effectiveness of road hump as a traffic calming measure in campus area. Literature on traffic calming in Malaysia are highlighted in this paper.

Keywords:
traffic calming measure; speed; noise level; institutional area

Ref. No : P021

TITLE:
CHALLENGES FACED BY OLDER PILGRIMS AND PILGRIMS WITH SPECIAL NEEDS IN PERFORMING HAJ FROM AN ACCESSIBILITY PERSPECTIVE

Rosilawati Zainol
Associate Professor, Dr, Department of Urban and Regional Planning, Faculty of Built Environment, University of Malaya, 50603 Kuala Lumpur
E-mail: rosilawati@um.edu.my

Muslims are required to perform Haj at least once in their lifetime. Performing haj requires a person to be physically and mentally fit. Not only he or she is required to deal with his or her self but also to deal with more than three million people who come from various countries with the various colourful background. Thus this study intends to explore the challenges faced by the older and pilgrims with special needs in performing their haj from an accessibility perspective. Methods used in this study are participatory observation and interview. Findings show the Kingdom of Saudi Arabia has carried out a lot of actions to ensure the best wellbeing of the pilgrims. It is therefore advisable that all nations can encourage their citizens to perform haj at their younger age.

Keywords:
Physical fitness, mental health, toleration, patience, empathy

Ref. No : P022

TITLE:
INFLUENCE OF TRAVEL TIME AND TRAVEL COST ON MODE CHOICE PREFERENCES PREDICTION MODELS: A CASE STUDY OF KLANG VALLEY, MALAYSIA

Suhana Koting[1]*, Mohamed Rehan Karim[2], Nik Ibtishamiah Ibrahim[1], Yuen Choon Wah[1], Onn Chiu Chuen[1]

[1] Center for Transportation Research, Department of Civil Engineering, Faculty of Engineering, University of Malaya, Kuala Lumpur, Malaysia.

[2] Transportation Science Society of Malaysia, Center for Transportation Research, Department of Civil Engineering, Faculty of Engineering, University of Malaya, Kuala Lumpur, Malaysia.

* Corresponding author
E-mail: suhana_koting@um.edu.my

The utilization of rail-based transport in Klang Valley has become a significant feature in urban transportation planning in Malaysia due to its benefit and competence performance. In this study, the main objective is to investigate the influence of travel cost, travel time and socio-demographic factors on shifting probability to rail transit among private transport users. A survey was conducted using revealed preference (RP) and stated preference (SP) methods. The Binomial Logistic Models were developed for each travel mode choice preferences. A sigmoidal or S-shaped logistic regression graph with respect to travel cost and travel time increment was plotted. A 50:50 split of rail and private transport modal share was attained at 44 minutes increment of current travel time. Based on current average travel time value, a 50:50 split would be at 141 minutes (97 + 44 minutes), which was more than 2 hours. A 50:50 split of rail and private transport modal share was attained when travel cost increment reached 52%. Based on current average travel cost value, private transport users spent about RM15.40 for their daily trip. By taking this value as baseline, a 50:50 split would be at RM23.40. In conclusion, in order to encourage private transport users to shift to rail transit, several restricted strategies on private vehicle ownership and development on new incentives especially for the rails users need to be implemented.

Keywords:
travel mode choice; rail transit; travel cost; travel time; shifting probability; binomial logistic

THANK YOU