COMPENDIUM OF

12TH ATRANS ANNUAL CONFERENCE

23 August 2019, Bangkok, Thailand

TRANSPORTATION FOR A BETTER LIFE:
SMART MOBILITY FOR NOW AND THEN

AYRF Proceeding

Organized by

ATRANS asian transportation research society

IATSS International Association of Traffic and Safety Sciences

Sponsored Technical Visit By

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COMPENDIUM OF

12TH ATRANS ANNUAL CONFERENCE

TRANSPORTATION FOR A BETTER LIFE:

"SMART MOBILITY FOR NOW AND THEN"

23 August 2019, Bangkok, Thailand

12TH ATRANS ANNUAL CONFERENCE

Program, 23 August 2019 at the Chatrium Hotel Riverside, Bangkok

Program of Day1: Conference Day						
8:00 – 9:00 Registration						
9:00 – 10:00 Opening Session, Room: Chatrium Ballroom, 4th Floor						
9:00 – 9:10 Introductory Remark By Mr. Silpachai Jarukasemratana, ATRANS Honorable Advisor	9:10 – 9:20 Welcome Remark By Mr. Satoshi Kamada, Executive Director, IATSS	9:20 – 9:40 Opening Remark By H.E. Arkhom Termpittayapaisith Former Minister of Transport				
9:40 – 10:00 Coffee Break						
10:00 – 12:00 Morning Session						
Session 1: Panel Discussion on Smart Mobility for Now and Then, Room: Chatrium Ballroom, 4th Floor Moderated by Prof. Dr. Atsushi Fukuda, ATRANS Honorable Advisor, Nihon University, Japan						
10:00 – 10:15	10:15 – 10:30	10:30 – 10:45	10:45 – 11:00			
Panelist 1: Presentation on Intro to Smart Mobility for Now and Then: Thailand Aspect presents by H.E. Arkhom Termpitayapaisith Former Minister of Transport	Panelist 2: Presentation on Intro to Smart Mobility for Now and Then: Japan Perspective presents by Dr. Katsutoshi Ohta, Professor Emeritus at U. of Tokyo and Counsellor of International Association of Traffic and Safety Sciences (IATSS)	Panelist 3: Presentation on Intro Smart Mobility for Now and Then in Korea presents by Dr. Taewan Kim, Professional Engineer Professor, Dept of Urban Engineering, Chung-Ang University, Seoul, Korea	Panelist 4: Presentation on Intro Smart Mobility for Now and Then: Taiwan Perspective presents by Prof.Dr. S.K. Jason Chang, Senior Vice President, ITS- Taiwan, Director, Advanced Public Transport Research Center, National Taiwan University			
11:00 – 12:00 Panel Discussion (all the panelists are invited to the stage)						
Buffet Lunch provided at River Burge Restaurant						
13:00 – 15:00 First (1st) Afternoon Sessions						
Session 2A: Benefit of Big Data in Transportation (Logistics, Safety) Room: Chatrium Ballroom, 4th Floor, Moderated by Assoc.Prof.Dr. Sorawit Narupiti, Chulalongkorn U.						
13:00 – 13:10	13:10 – 13:20	13:20 – 13:30	13:30 – 13:40	13:40 – 13:50		
"Benefit of Big Data for Road Safety Audit and Improvement on Rural Road Network" Dr. Charkree Bumrungwong, Director of Road Safety Audit, Department of Rural Roads, MOT	"Benefit of Big Data in Transport Safety" By Dr. Napat Jatusripitak, Founder and CEO at Siametrics Consulting & Analytics, Thailand	"Benefit of Big Data in Transport Safety in India and in Japan" By Dr. Debaditya Roy, Research Fellow, Nihon University, Japan	"Benefit of Big Data in Traffic Management in Metro Manila" By Prof. Dr. Alexis Fillone, De La Salle U., The Philippines	"Applying Mobile Data for Transport Planning" By Dr. Toshiaki Muroi, Research Fellow, Japan Transport and Tourism Research Institute, Japan		
13:50 – 15:00 Panel Discussion and Q & A						
IATSS Session 2B: Road Safety on Data Collection of Motorcycle Crashes, Room: The Curve, 2th Floor, Moderated by Dr. Sumet Ongkitikul, Director, TDRI						
13:00 – 13:10	13:10 – 13:20	13:20 – 13:30	13:30 – 13:40	13:40 – 13:50	13:50 – 14:00	14:00 – 14:10
"Brief Intro of the Session" By Ms. Mirjam Sidik, CEO, AIP Foundation, Vietnam	"**Data Collection of Motorcycle Crashes: In Case of Bangladesh**" By Dr. Abu Talab, MD, Center for Injury Prevention and Research, Bangladesh	"**Data Collection of Motorcycle Crashes: In Case of Malaysia**" By Prof. Dr.Shaw Voon Wong, Universiti Putra Malaysia	"**Data Collection of Motorcycle Crashes: In Case of The Philippines**" By Prof. Dr. Ricard G. Sigua, University of the Philippines	"**Data Collection of Motorcycle Crashes: In Case of Sr Lanka**" By Dr. Niranga Amarasingha, Senior Lecturer, Sri Lanka Institute of Information Technology	"**Data Collection of Motorcycle Crashes: In Case of Thailand**" Dr. Phathai Singkham, Department of Disease Control, Ministry of Public Health	"**Accident Data Collection: In Case of Japan**" By Prof. Dr. Satoru Kobayakawa, Nihon University
14:10 – 15:00 Panel Discussion and Q & A						

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12TH ATRANS ANNUAL CONFERENCE

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Program of Day 1: Conference Day				
Session 2C: Transport Innovation Challenge (Start-up), Room: Ravipa 1, Moderated by Dr. Nuwong Chollacoop, Head of Renewable Energy Lab., MTEC, Ministry of Science &Technology and Environment				
13:00 -13:10	13:10 – 13:20	13:20 – 13:30	13:30 – 13:40	13:40 – 13:50
"Innovation Challenge in Moving towards more sustainable transport" By Ms. Mellyana Frederika, UN Pulse Lab Jakarta, Indonesia	"Transport Innovation Challenge: Changing the way we move, electric vehicle (EV) startup" By Daniël Scheerooren Consultant Sustainable Cities and Mobility at South Pole Southeast Asia	"What are the transport innovation challenges in Smart Mobility?" By Ms. Patcharin Posirisuk, CEO, Sammitr Smart Mobility Co.,Ltd.	"GRAB Service: A Transport Innovation Challenge in Digital Era" By Dr. Marian Panganiban, Regional Policy & Research Manager, GRAB	"Autonomous Vehicle: A Transport Innovation Challenge for startup" By Asst.Prof.Dr. Nuksit Noomwongs Department of Mechanical Engineering, Faculty of Engineering, Chulalongkorn University, Thailand
13:50 – 15:00 Panel Discussion, Q & A				
Session 2D: Public Participation & Engagement (accessibility: social inclusion, Safety: Empowerment, TOD: lifestyle), Room: Ravipa 2, Moderated by Assoc.Prof.Dr. Varameth Vichiensan, Kasetsart U.				
13:00 -13:10	13:10 – 13:20	13:20 – 13:30	13:30 – 13:40	13:40 – 13:50
"Public Participation and Engagement in Road Safety in Thailand" By Dr. Witaya Chadbunchachai, MD., Director for WHO Collaborating Centre for Injury Prevention and Safety Promotion, Khon Kaen Hospital	"Enhancing community road safety through public participation" Asst.Prof.Dr.Kanisa Rungjang Department of Civil Engineering Faculty of Engineering Kasetsart University	"Public Participation and Engagement in Transportation: In case of Japan" By Prof. Dr. Atsushi Fukuda: Nihon U, Japan	"Public Participation and Engagement for Social Inclusion and Empowerment in Road Safety in Thailand" By Dr.Thawilwadee Burikul , Director of Research & Development Office, King Prajadhipok's Institute	"Accessible to public transport and pedestrianization require Public Participation and Engagement" By Assoc.Prof.Dr.Viroat Srisurapanon, KMUTT
13:50 – 15:00 Panel Discussion, Q & A				
15:00 – 15:20 Coffee Break				
15:20 – 17:20 Second (2nd) Afternoon Session				
Session 3A: Voice of ATRANS for Public Opinion on Transport-Related Environment and Safety for VRU, Room: Chatrium Ballroom, 4th Floor, Moderated by Assoc.Prof.Dr. Saiprasit Koetniyom, King Mongkut's University of Technology North Bangkok and Asst.Prof.Dr.Sittha Jaensirisak, Ubonratchathani U.,				
"PM 2.5 Issue" By Assoc.Prof.Dr. Chumnong Sorapipatana, ATRANS Board and Former Chairman of Energy Division, The Joint Graduate School of Energy and Environment, KMUTT	"Road Safety in Thailand Issue" By Assoc.Prof.Dr. Pongrid Klungboonkrong,KKU	"Road Safety for VRU in Thailand" By Ms. Krittapol Kemakawat Head of Prevention and Engagement British Embassy, Bangkok Thailand	"Attitude and Behavior in Road Safety Issue" By Mr. Hideaki Takaishi, Senior Chief Engineer, HONDA R&D Co.,Ltd. Japan	"Urban Planning for Active Transport Mode Issue" By Assoc.Prof.Dr. Pawinee Iamtrakul, Thammasart University
Session 3B, 3C, 3D, and 3E: ATRANS Young Researcher's Forum Paper Presentations				

Continued next page

Program of 12th ATRANS Annual Conference: Young Researcher's Forum 2019

15:20 – 17:20 < Session 3 > Parallel Session of ATRANS Young Researcher's Forum Paper Presentations (Each presenter has 10-minute for presentation and 4-minute for questions and answers)				
Duration	**<Session 3B-1> Topic: 1-9** (English) **Room: The Curve, 2th Floor** **Chaired and Co-chaired by** Assoc.Prof.Dr. Thaned Sathiannam, KKU, Dr. Bhanitiz Aursudkij, DOH, Thailand	**<Session 3C-1> Topic: 1-9** (English) **Room: Ravipa 1, 4th Floor** **Chaired and Co-chaired by** Prof.Dr.Alexis Fellone, De La Salle U., Philippines Assoc.Prof.Dr.Wichuda Sathiennam, KKU	**<Session 3D-1> Topic: 1-9** (English) **Room: Ravipa 2, 4th Floor** **Chaired and Co-chaired by** Dr. Preda Pichayapan, CU Asst.Prof.Dr. Saroch Boonsiripant, KU	**<Session 3E-1> Topic: 1-9** (Thai) **Room: Ravipa 3, 4th Floor** **Chaired by and Co-chaired by** Asst.Prof.Dr. Waiphot Kulachai, Burapha U. Dr. Pattarathep Sinlapacharn, Department of Highways (DOH)
15:20-15:34	**[AYRF2019-006]** The Study of Travel Mode Choice among Basic Education School Students in Metro Manila By Monorom Rith, Prof.Alexis M. Fillone, and Jose Bienvenido M. Biona	**[AYRF2019-007]** Energy Efficiency and CO2 emissions of different forms of distribution in Vietnam and a comparison with France By Dr.LAM Quoc Dat	**[AYRF2019-005]** Indecision zone and factors influence the stop/go decision at the yellow traffic signal: the comparison of motorcyclists with passenger car's driver By Siwa Buahome, Dr. Wichuda Satiennam, and Dr. Thaned Satiennam	**[AYRF2019-001TH]** The Change of Land Value from Residential and Public Services Distribution Round Sukhumvit Station การเปลี่ยนแปลงมูลค่าที่ดินจากการกระจายตัวของอาคารพักอาศัยและบริการสาธารณะโดยรอบสถานีสุขุมวิท By Nitiwat Jannu and Assoc.Prof.Dr. Prapatpong Upala
15:34-15:48	**[AYRF2019-021]** Study on Park and Ride for Motorcycle in Hanoi: An Analysis of Current Situation and the User's Expectation for Yen Nghia Station By Pham Nhat Thien, Bui Van Sau, Dinh Xuan Hoan, and Dr. Dinh Van Hiep	**[AYRF2019-011]** The Explosive Growth of Public Bicycle System in Vietnamese Cities By Nhat Truong, Vu Phan, and Duc Doan	**[AYRF2019-008]** Experiment on mobility survey using smartphone in Hanoi, Vietnam By Minh Hieu Nguyen, Jimmy Armoogum, and Cedric Garcia	**[AYRF2019-009TH]** Applying Participatory Democracy to Promote Road Safety in Thai Youth การใช้แนวคิดประชาธิปไตยแบบมีส่วนร่วมในกลุ่มเยาวชนไทยเพื่อเสริมสร้างความปลอดภัยทางถนน By Dr. Thawilwadee Bureekul, NIttaya Ponok, and Dr. Lertporn Udompong
15:48-16:01	**[AYRF2019-024]** Policy Implications for Natural Gas Vehicle Development in Vietnam: Analysis from International Experience By An Minh Ngoc and Vu Trong Tich	**[AYRF2019-012]** Policies and Measures to Create Efficient and Low-Carbon Transport in Urban Areas: Case Study in Hochiminh City By Vu Trong Tich and An Minh Ngoc	**[AYRF2019-019]** Opportunities for Commuter Commerce using Consolidation Points and MaaS Platform in Singapore By Lu Meng and Albert Hardy Tanutama	**[AYRF2019-010TH]** The Effectiveness of Health Education Program with Utilizing Line Application for Enhancing Health Literacy in Motorcyclist Accident Prevention among Non-Formal Education Adolescents ผลของโปรแกรมสุขศึกษาร่วมกับการใช้แอพพลิเคชั่นไลน์เพื่อเสริมสร้างความรอบรู้ด้านสุขภาพในการป้องกันอุบัติภัยจากจราจรถจักรยานยนต์ของวัยรุ่นนอกระบบการศึกษา By Nattawat Panyasai and Dr. Chulaporn Sota

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Program of 12th ATRANS Annual Conference: Young Researcher's Forum 2019 (continued)

15:20 – 17:20 < Session 3 > Parallel Session of ATRANS Young Researcher's Forum Paper Presentations (Each presenter has 10-minute for presentation and 4-minute for questions and answers)				
Duration	**<Session 3B-1> Topic: 1-9** (English) **Room: The Curve, 2th Floor** **Chaired and Co-chaired by** Assoc.Prof.Dr. Thaned Sathiannam, KKU, Dr. Bhanitiz Aursudkij, DOH, Thailand	**<Session 3C-1> Topic: 1-9** (English) **Room: Ravipa 1, 4th Floor** **Chaired and Co-chaired by** Prof.Dr.Alexis Fellone, De La Salle U., Philippines Assoc.Prof.Dr.Wichuda Sathiennam, KKU	**<Session 3D-1> Topic: 1-9** (English) **Room: Ravipa 2, 4th Floor** **Chaired and Co-chaired by** Dr. Preda Pichayapan, CU Asst.Prof.Dr. Saroch Boonsiripant, KU	**<Session 3E-1> Topic: 1-9** (Thai) **Room: Ravipa 3, 4th Floor** **Chaired and Co-chaired by** Asst.Prof.Dr. Waiphot Kulachai, Burapha U. Dr. Pattarathep Sinlapacharn, Department of Highways (DOH)
16:01-16:15	**[AYRF2019-029]** Perception on the Transport Modes in the Island Province of Marinduque, Philippines By Jhun Christopher Castro and Prof. Alexis Fillone	**[AYRF2019-013]** Building multimodal transportation measures on a number of main transportation corridors in the north of Viet Nam By Nguyen Thi Nhu, Nguyen Thi Thu, and Nguyen Thi Hong Mai	**[AYRF2019-028]** A Proposed Conceptual Framework for Investigating Factors Affecting Carpooling Decisions By Puthipong Julagasigorn and Dr. Ruth Banomyong	**[AYRF2019-025TH]** Application of Highway Safety Manual (HSM) for Accident Prediction on Expressway การประยุกต์ใช้คู่มือด้านความปลอดภัยทางถนน (Highway Safety Manual: HSM) สำหรับคาดการณ์อุบัติเหตุบนทางพิเศษ By Wissarut Nillpong, Pornnarong Lueanpech, and Dr. Terdsak Rongvirypanich
	<Session 3B-2> Topic: 1-9 (English) **Room: The Curve, 2th Floor** **Chaired and Co-chaired by** Dr. Bhanitiz Aursudkij, DOH, Thailand Assoc.Prof.Dr. Thaned Sathiannam, KKU	**<Session 3C-2> Topic: 1-9** (English) **Room: Ravipa 1, 4th Floor** **Chaired and Co-chaired by** Assoc.Prof.Dr.Wichuda Sathiennam, KKU Prof.Dr.Alexis Fellone, De La Salle U., Philippines	**<Session 3D-2> Topic: 1-9** (English) **Room: Ravipa 2, 4th Floor** **Chaired and Co-chaired by** Asst.Prof.Dr. Saroch Boonsiripant, KU Dr. Preda Pichayapan, CU	**Return to main conference room**
16:20-16:34	**[AYRF2019-030]** Urban Transition in the Catchment Areas of Metro Lines in Ho Chi Minh City: A Case Study of Metro Line 1 By Le ThiKieu, Dao Chi Vo, and Minh Thong Nguyen	**[AYRF2019-016]** Travel behavior change under adverse weather conditions – An essential study for formulating "active" traffic management strategies By Thi Thanh Huong Nguyen and Anh Tuan Vu	**[AYRF2019-031]** The Effect of Psychological Factors on Travelers Intention: A Case Study of Bike Sharing System in Khon Kaen University, Thailand By Tanathip Chujhit, Dr. Wichuda Satiennam, and Dr. Thaned Satiennam	

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Program of 12th ATRANS Annual Conference: Young Researcher's Forum 2019 (continued)

15:20 – 17:20 < Session 3 > Parallel Session of ATRANS Young Researcher's Forum Paper Presentations (Each presenter has 10-minute for presentation and 4-minute for questions and answers)				
Duration	**<Session 3B-2> Topic: 1-9** (English) **Room: The Curve, 2th Floor** **Chaired and Co-chaired by** Assoc.Prof.Dr. Dr. Bhanitiz Aursudkij, Department of Highways (DOH) Thaned Sathiannam, KKU,	**<Session 3C-2> Topic: 1-9** (English) **Room: Ravipa 1, 4th Floor** **Chaired and Co-chaired by** Assoc.Prof.Dr.Wichuda Sathiennam, KKU Prof.Dr.Alexis Fellone, De La Salle U., Philippines	**<Session 3D-2> Topic: 1-9** (English) **Room: Ravipa 2, 4th Floor** **Chaired and Co-chaired by** Asst.Prof.Dr. Saroch Boonsiripant, KU Dr. Preda Pichayapan, CU	**<Session 3E-2> Topic: 1-9** (Thai) **Room: Ravipa 3, 4th Floor** **Chaired and Co-chaired by** Asst.Prof.Dr. Waiphot Kulachai, Burapha U. Dr. Pattarathep Sinlapacharn, Department of Highways (DOH)
16:34-16:48	**[AYRF2019-032]** Developing Pedestrian Environment Quality Score for Vietnamese Medium Sized Cities: A Case Study in Thu Dau Mot City By Minh Thong Nguyen, Thai Son Nguyen, and Dinh Vinh Man Nguyen	**[AYRF2019-017]** Assessing the first BRT corridor in Hanoi by the Bus Rapid Transit Standard By Huy Nghia Nguyen, Sy Sua Tu, and Minh Hieu Nguyen	**[AYRF2019-034]** Choice Analysis between Point-to-Point (P2P) Bus Service and other modes of Transportation in Metro Manila By Emmeline Espano, Kane Ilao, Princess Tamayao, and Justin Tomaliwan	
16:48-17:02	**[AYRF2019-033]** Analysis of the Black Nazarene Procession in the City of Manila By Darius Diamante, Rex Apad, John Ferrer, Alerik Ruiz, and Prof. Alexis Fillone	**[AYRF2019-018]** Artificial Intelligence Approaches for Prediction of Travel Decisions: A Case Study of Hanoi, Vietnam By Dr. Thi My Thanh Truong	**[AYRF2019-037]** Applicability of VR Technology for Evaluation of Walkability near Narita Station, Japan By Hiroto Numa, Hironori Ozawa, Mizuki Sakai, and Prof. Atsushi Fukuda	
17:02-17:16	**[AYRF2019-036]** An Estimation of the Effects of Implementation of policy for Road Network Disruptions by Urban Flood in Developing Country By Noriyasu Tsumita, Hiroki Kikuchi, and Prof.Atsushi Fukuda	**[AYRF2019-035]** Effect of BRTS on NMT users in Ahmedabad City By Sarath Kuttikkatuparambil Thilakan and Talat Munshi	**[AYRF2019-022]** Development of Parking Standards and Estimation of Trip Attraction Rates for Hospitals and Other Health Institution in Sri Lanka By S.R.B.W.M.S.R.B WANNINAYAKE	
17:30-17:45	Paper Certification and Best Paper Presentation Awarding Ceremony			
17:45-17:55	Certificate of Appreciation given to AYRF 2019 Committee			
17:55-18:00	Closing ceremony			
19:00-21:00	Reception Dinner (By Invitation only) at Chatrium Ballroom, 4th Floor			

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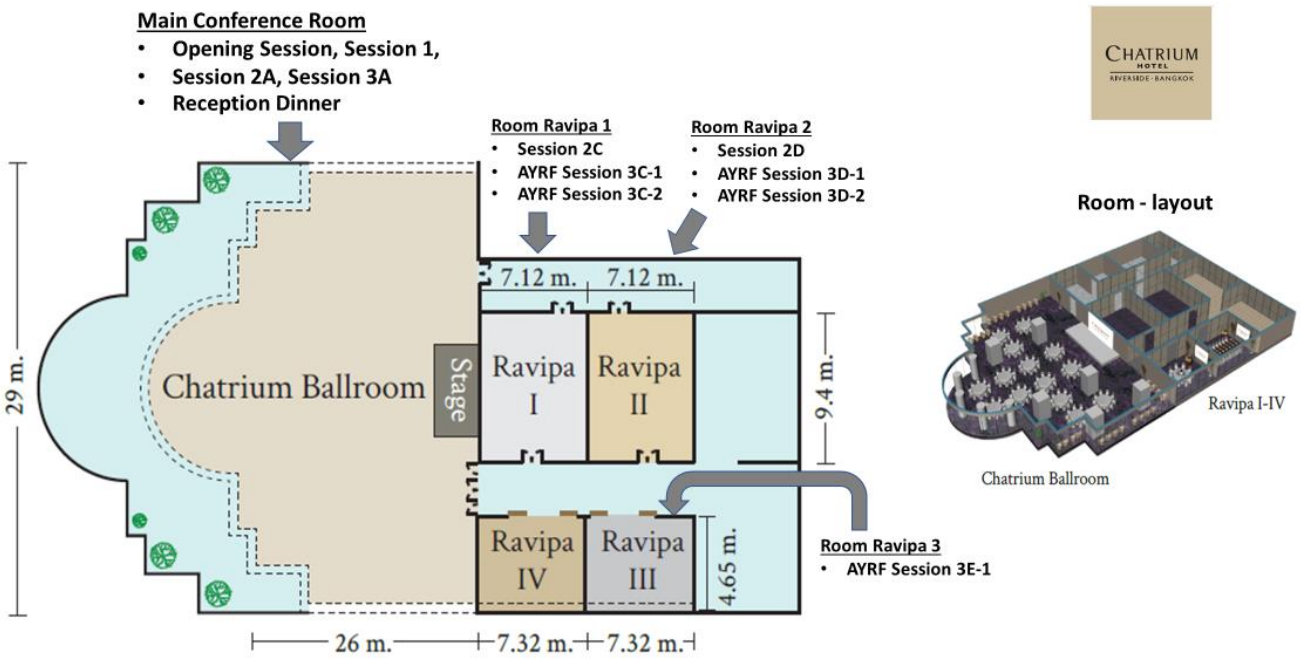
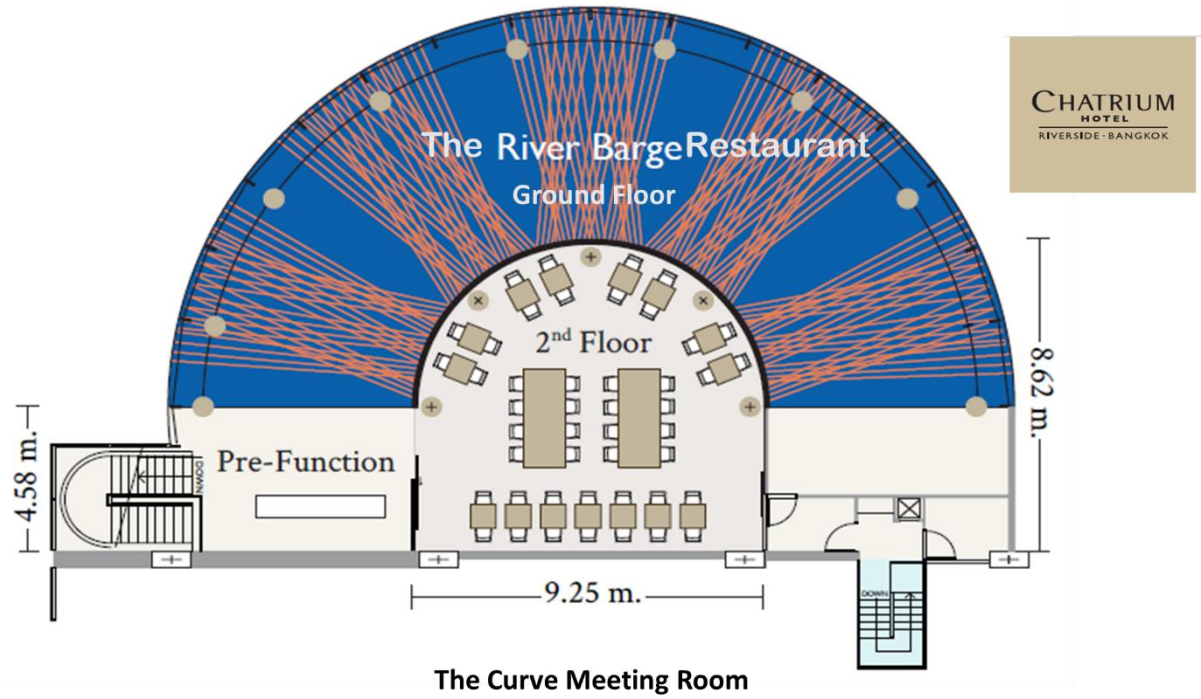
Program of Day 2: Technical Visit to TTK – TPRO: Safety Training Center, Chacherngsao Province		
Time	**Program**	**Remarks**
8:00	Get together at the hotel lobby	Limits number to 50 persons
8:20	Departure from Hotel	Bus provided for 50 Seats only
9:50	Arrive at TTK-TPRO	Take a break and be ready for lecture and practical exercise
10:00 – 12:00	Lecture and practice	At meeting room and safety training field
12:00 – 13:00	Lunch Break	Lunch boxes are provided
13:00 – 14:30	Experiencing by doing closely with instructors	4-base learning stations provided
14:30 – 15:00	Sum-up and Closing and Group Photo	Exchange gifts and token of appreciation
15:00	Return home	Bus will drop at Suvarnabhumi Airport and to the hotel

Remark: This technical Visit Program sponsors by AP HONDA and TTK Asia Transport (Thailand) Co.,Ltd.

Layout and Main Conference Room
Located on 4th Floor

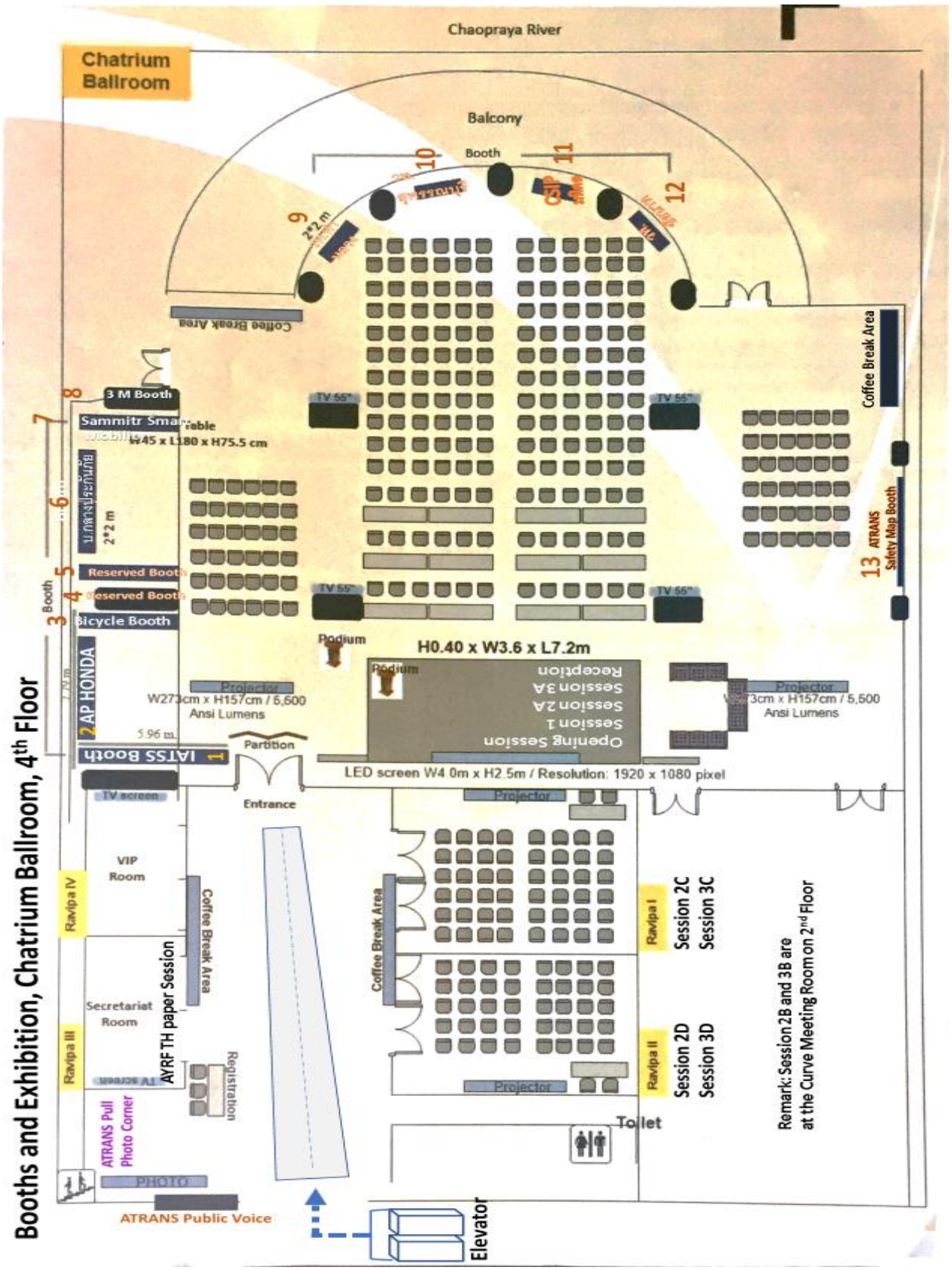


The Curve Meeting Room
located on 2nd Floor above The River Barge Restaurant



The Curve Meeting Room
on 2nd Floor above The River Barge Restaurant

Booths and Exhibition on 4th Floor of Chatrium Ballroom



< Morning Session >

< Opening Session >
Duration: 9:00 – 9:40 a.m.
Room: Chatrium Ballroom

Introductory Remark	Mr. Silpachai Jarukasemratana ATRANS Honorable Advisor
Welcome Remark	**General Police Satoshi Kamada** **Executive Director, International Association of Traffic and Safety Sciences (IATSS)**
Opening Remark	**H.E. Arkhom Termpittayapaisith** **Former Minister of Transport**

Introductory and Welcome Remarks

By Mr. Silpachai JARAKASEMRATANA, ATRANS Honorable Advisor and Former Permanent Secretary, Ministry of Transport

Good morning, a very warm welcome to all of you to the twelfth (12th) ATRANS Annual Conference:

- His Excellency, Arkhom Termpittayapaisith, Former Minister of Transport, Thailand;
- General Pol. Satoshi Kamada, Executive Director of International Association of Traffic and Safety Sciences (IATSS), Japan;
- Mr. Hiroyuki Kaneko, Managing Director of IATSS;
- Prof. Dr. Wiroj Rujopakarn, ATRANS Honorable Advisor, Kasetsart University;
- Prof. Dr. Atsushi Fukuda, ATRANS Honorable Advisor, Japan;
- Dr. Witaya Chadbunchachai, Director of WHO Collaborating Center;
- ATRANS Members;

As well as Delegates, Distinguished Guest Speakers, Ladies and gentlemen,
we, at ATRANS, are delighted to host this gathering today.

Let me briefly look back at the history of ATRANS activities:

On forth (4th) of May 2007, a group of the very keen academics, researchers and Transport Practitioners joined hands to discuss seriously in forming a non-profitable and pure academic research activity benefiting society at large, which has become ATRANS Society nowadays.

This year, ATRANS has entered the twelfth (12th) years of operation since its establishment in 2007. Our vision is to pursue "Transportation for a Better Life." One of ATRANS missions is to turn research outcomes to actual implementation in the community.

In response to the needs of young researchers, we initiated ATRANS Young Researcher's Forum to provide a broader opportunity to not only young researchers but also students at large to present their research outputs and to share their knowledge and ideas through paper presentations.

His Excellency, Distinguished guests, ladies and gentlemen:

The sustainable transport system has become a core issue in provision of mobility. Similarly, technology is changing our lives to make things easier and better. Hence, it is undeniable that the future of transportation will be influenced through a higher integration between infrastructure and information systems.
Transportation plays an important role to fuel its economic growth and social development. The Purpose of today's conference is to discuss the issues on fast-changing world towards transportation and technology in global experiences.

We may agree that Information and Communications Technology play a very vital role in assisted mobilizing people better and smarter. We may also agree that Management of Mobility is a tool to achieve sustainable city development and provide competitiveness in transport sector.

Today, I am sure that we will learn a lot from our distinguished guest speakers regardless of benefit of big data, road safety, transport innovation challenge as startup, public participation and engagement and voice of ATRANS for public opinion.

This is, therefore, the main theme of our 12th ATRANS Annual Conference is "Transportation for a Better Life focuses smart mobility and for now and then."

I hope you will join in the discussion today, making it fruitful and beneficial for everyone.

Distinguished guests, delegates, ladies and gentlemen:

Our members and staffs here have worked enthusiastically and relentlessly in preparing and making this annual conference possible. We wish to ensure that all the distinguished guests and the participants gain many and diverse ideas related to transportation. We hope you may use this opportunity for network building and as a cross-cultural exchange with one another.

ATRANS will always step forward little by little to contribute to our dynamic society through accumulating research and knowledge on transportation and innovation technology, traffic safety, energy and environment and through providing opportunities to share the outcomes with all of you.

And Last but not least, ATRANS is greatly in debt of International Association of Traffic and Safety Sciences for funding ATRANS academic activity. Without their consecutive contribution, ATRANS would not have come to this far. At this time, ATRANS is honored to invite General Pol. Satoshi Kamada, Executive Director of International Association of Traffic and Safety Sciences (IATSS), Japan to address our assembled delegates and guests a welcome remark with the introduction of IATSS organization.

General Police. Satoshi Kamada, please.

END

Welcome Remarks

By General Police Satoshi Kamada,
Executive Director of International Association of Traffic and Safety Sciences (IATSS)

Good morning,

- His Excellency, Arkhom Termpittayapaisith, Former Minister of Transport, Thailand;
- Delegates, Distinguished Guest Speakers, Ladies and gentlemen,

Welcome to our conference today.

First of all, please allow me to introduce our organization, IATSS. IATSS stands for International Association of Traffic and Safety Sciences. Our missions and its functions are:

- Public interest corporation in Japan, supported by Honda
- Research projects on traffic & safety
  Conference & symposium
  Publications
  The IATSS Awards
  IATSS Forum (Leadership training)
- Interdisciplinarity & Internationality
- Long partnership with ATRANS

And today, IATSS organizes 1 session.

Currently, there has been challenges in Japan-1 as follows:

- Fatalities and injuries are decreasing, but people are sensitive to unreasonable injuries on roads.
- Drunk driving → Sever penalties already introduced
- Mobile phone use → Penalty becomes severer this year
- Crashes involving kids → Getting more concern recently. Emergency measures being taken.
- Crashes by aged drivers → Most serious. Promotion of safer vehicles, reform of license system…while securing mobility of the elderly…

In addition, there has been other challenges in Japan-2 as follows:

- "Smart mobility" or MaaS in a broad sense is a large and comprehensive target of Japan. It is one of key issues in national policy documents.
- Mobility-impaired people outside cities are relatively focused in Japan.

- Automated driving is closely related. Experiments are actively conducted throughout the country and legal systems in the early stage is established this year. Steady implementation and contribution to reducing crashes is expected.

Moreover, the followings are the incoming challenges in Japan-3:

- Olympic and Paralympic Games Tokyo 2020
- Traffic management is critical ! TDM etc. Establishing a legacy for the future.

Regarding our research activity, Strategic research project “GRATS” is launched.

- International forum “GIFTS” (5th) will be held in October (Tokyo).
- This year, both GRATS and GIFTS focus on:
- ① International comparison of traffic culture
- ② How Japan and Japanese organizations are to be
- involved in Asian traffic issues

IATSS would like to develop collaboration with Asian researchers.

Thank you very much.

END

Opening Remark

By His Excellency, Minister Arkhom TERMPITTAYAPAISITH
Former Minister of Transport, Thailand

Good morning:

- General Police Satoshi Kamada, Executive Director of International Association of Traffic and Safety Sciences (IATSS), Japan;
- Professor Dr. Katsutoshi Ohta, Professor Emeritus of University of Tokyo;
- Professor Dr. S.K. Jason Chang, Senior Vice President of ITS-Taiwan, National Taiwan University;
- Dr. Taewan Kim, Professor of Chung-Ang University, Korea;
- Delegates from British Embassy, Australian Embassy, and from Asian Injury Prevention;
- ATRANS Honorable Advisors: Mr. Silpachai Jarukasemratana, Professor Dr. Atsushi Fukuda, and Professor Dr. Wiroj Rujopakarn;
- ATRANS members;

As well as Distinguished guest speakers, Ladies and Gentlemen,

First of all, let me to express my sincere gratitude for the honor, I have been given to officiate the opening remarks for the 12th ATRANS Annual Conference on "Transportation for a Better Life: Smart Mobility for Now and Then" today.

I would also like to thank our hosts, Asian Transportation Research Society or ATRANS in short and International Association of Traffic and Safety Sciences (IATSS) for offering us this beautiful venue and wonderful facilities.

At the same time, please allow me to welcome all of you to this important gathering.

Cities are struggling with transportation today and will struggle even more in the future. As population growth, it creates Traffic demand for more transportation infrastructure and services.

With Thailand Transport systems Development Strategic Plan for 2017-2036, our mission, at Ministry of Transport, is to improve fundamental infrastructure and provide public transportation services with utilization of innovation, new Technologies and efficient management techniques to facilitate rapid and convenient mobility, improve living conditions and boost Thailand's competitiveness which will make Thailand a leading member of the ASEAN (Association of Southeast Asian Nations).

And this year Thailand becomes ASEAN Chairmanship and a member of ASEAN Smart Cities Network (ASCN), one of the government's top priorities is to build smart cities throughout the country, making existing cities smarter and livable as well as building new modern cities with good design and smart technology including smart mobility.

In response to above, we at Ministry of Transport together with Ministry of Digital Economy and Society launched the project called "Smart City Thailand Takeoff." These new smart city initiatives will create new market opportunities for information and communication technologies (ICTs) and new opportunities for international cooperation.

Distinguished guests, Ladies and Gentlemen,

As you may notice that our society is disrupted by technology. The rapid urbanization is another challenge. Cities across Thailand are embarking on a digital transformation. New transportation technologies are emerging to meet these challenges. The question is how these emerging technologies can support the transition to smart mobility.

I am certain that not only Thailand, but many other countries are working to develop the tremendous potential of emerging technologies such as artificial intelligence (AI), big data, the Internet of Things (IoT) among others to connect transportation with real-time service provision.

For instance, autonomous vehicles, alternative fuels, keyless fleet management and traffic analytics, as well as local zoning and planning policies that support transit-oriented development. New technology for on-road communications will dramatically change how vehicles operate and provide information and capabilities for better, real-time traffic management.

In addition, a new technology can also provide a personal travel plan as a smart mobility supportive of mass rapid transit system. One obvious case that several countries may have already put in practice is Mobility as a Service (MaaS).

Blending smart technologies and innovations with the traffic and commuting system as personal transportation planning feature like Grab's idea of Mobility as a Service (MaaS), is one example of a cooperation with the private sector to tangibly drive a city toward smart

city status through the government's projects. This supports the Thai tourism industry while aligning with today's technological society."

This is in accordance with the National Strategy for Thailand 4.0 policy, whose mission is to reform the Thai economy and see it driven by innovations.

Distinguished Guests, Ladies and Gentlemen,

Nowadays, Thailand is facing aging society. Ministry of Transport concerns with all accessibility and convenience to support elderly and disabled persons by implementing universal design for all modes of transport infrastructures, vehicles and facilities.

However, I would say, one of the most challenging tasks for Thailand, is road safety. Given Thailand's record on road safety, Thailand was ranked as the 2nd highest number of road accidents, injuries and fatalities for 2 (two) consecutive years according to World Health Organization (WHO).

Road Safety has been my major concerned issue and I would say, one among the other most challenging tasks at Ministry of Transport. As the theme of the today's conference is on the "Smart Mobility for Now and Then," This would be interesting to discuss how technology and innovation would alleviate road safety problems.

I am certain that we will have more to discuss in the conference particularly on the smart mobility issue.

I hope you will all join in the discussion of the conference today make it successful event for all.

Now, it is time for me to declare the conference opens. Thank you very much.

จบคำกล่าว/END

< Morning Session >

< Session 1 >
"Smart Mobility for Now and Then"
Duration: 10:00 – 12:00 a.m.
Room: Chatrium Ballroom

Moderated by Prof. Dr. Atsushi Fukuda, ATRANS Honorable Advisor, Nihon University, Japan		
Speaker 1	**"Smart Mobility for Now and Then: Thailand Aspect"**	H.E. Arkhom Termpitayapaisith Former Minister of Transport
Speaker 2	**"Intro to Smart Mobility for Now and Then: Japan Perspective"**	Dr. Katsutoshi Ohta, Professor Emeritus at U. of Tokyo and Counsellor of International Association of Traffic and Safety Sciences (IATSS)
Speaker 3	**"Smart Mobility for Now and Then in Korea"**	Dr. Taewan Kim Professor, Dept of Urban Engineering, Chung-Ang University, Seoul, Korea
Speaker 4	**"Smart Mobility for Now and Then: Taiwan Perspective"**	Prof.Dr. S.K. Jason Chang, Senior Vice President, ITS- Taiwan, Director, Advanced Public Transport Research Center, National Taiwan University

Speaker of <Session 1>

"Thailand Smart Mobility for Now and Then"

H.E. Mr. Arkhom Termpittayapaisith
Former Minister of Transport
38 Ratchadamnoen Nok Rd, Wat Sommanat,
Pom Prap Sattru Phai, Bangkok 10100
Telephone: 02-283- 3000 **Fax:** 02-281- 3959

Education:

- Honorary Doctor of Arts, University of Sisaket.
- Master of Economics, Williams College, USA.
- Bachelor of Arts, Faculty of Economics, Thammasat University

Working Experiences:

- 2015-2019 Minister of Transport.
- 2014 Deputy Minister of Transport.
- 2014 Member of the National Assembly.
- 2004 Deputy Secretary, Office of the National Economic and Social Development.
- 2003-2004 Advisor, Policy and Planning.
- 2000-2003 Assistant Secretary NESDB.
- 1999-2000 Specialist, Policy and Planning.
- 1996-1999 Director, Division of Economic Analysis and Projections

Category	Title	Year
Speaker	Thailand's economic strategy over the next decade	14 January 2016
Speaker	The Way Forward-The 21st Maritime Sink Road	20 November 2015
Speaker	Future relationships, China - Thailand Under the Marine Silk Road of the 21st century	20 November 2015
Interview	Minister of Transport make haste on urgent top five missions	26 August 2015
Speaker	AEC: myths and realities, opportunities and challenges	26 November 2012
Speaker	Creative Thailand seminar	29, 30 May 2008

Speaker of <Session 1>

"Smart Mobility for Now and Then —Japanese situation"

Dr. Katsutoshi Ohta, Professor Emeritus at U. of Tokyo and Counsellor of International Association of Traffic and Safety Sciences (IATSS)
1-36-7-1A Uehara, Shibuya-ku, Tokyo 151-0064, Japan
Tel & Fax: +81-(0)3 – 3469-5525
Email: katuohta90@khc.biglobe.ne.jp

Brief Biography:

Education:

- Dept. of Civil Engineering, The University of Tokyo, B.E. 1965, M.E. 1967.
- Graduate School of Arts and Sciences, Harvard University, Ph.D. 1972.

Professional Experiences:

- Dept. of Urban Engineering, The University of Tokyo,1971-2003.
- Professor, School of Regional Development Studies, Toyo University, 2003-2012.
- Director General, Toyota Transportation Research Institute, 2003-2018.

Specialization: Urban transport planning

A Summary of Talk: Smart Mobility for Now and Then – Japanese situation

Smart Mobility (SM)is an ambiguous key word or concept to describe new innovative transport modes and systems. "Smart" here usually means "intelligent" and "efficient" using new technology such as IT and ITS. "Mobility" is a new word reflecting a new concept to describe transport, reflecting IoT, IT Revolution, or the 4th Industrial Revolution. Smart Mobility is used to refer to IT-based transport modes including ride sharing, on demand transit and CASE (Connected, Autonomous, Shared and Electric) vehicle. In transport-related field, similar key words are used such as Smart Highway and Smart City.

The concept has attracted many cities to reduce serious transport related problems caused by motorization. As a background I discuss the motorization patterns and policy changes of the world cities. Each city is looking for new technological solutions today and SM is one option there.

I understand there are 3 levels of Smart Mobility: Level 1 refers to transport vehicles which uses some elements of the innovative technology, Level 2 refers to transport modes which uses innovative ideas and technologies for the mobility service, Level 3 refers to multi-mode transport systems for areas integrating various conventional and innovative modes.

I would like to introduce two recent cases in Japan. First case is government programs (Smart Mobility Challenge, New Mobility Service Promotion) in order to solve local socio-economic problems by improving transport services with partnership of community, company and local governments.

Efforts to develop Japanese-style MaaS is an interesting example there. Second case is another PPP approach using ITS technology for the transport problems of a mega event, 2020 Tokyo Olympics/Paralympics. Various innovative TDM measures such as dynamic toll management (road pricing) of the Expressway network, planned congestion of major streets, and teleworking (Smart Work) are proposed and experimented now.

As a summary, I would like to propose these innovative transport modes and concept should be promoted in the context of SMSD (SM for Sustainable Development). It would open the wider challenging field for transport planners: Level 4, Beyond Smart Mobility.

Speaker of <Session 1>

"Smart Mobility for Now and Then in Korea"

Dr. Taewan Kim, Professional Engineer
Professor, Dept of Urban Engineering, Chung-Ang University, Seoul, Kor
Heulseok-Ro 84, Dongjak, Seoul, 06974
Tel. (02)-820-5846
Email: twkim@cau.ac.kr

Brief Biography:

EDUCATION

- **UNIVERSITY OF CALIFORNIA, DAVIS**
  Ph. D. in Transportation Engineering, March 2003
- **GRADUATE SCHOOL OF ENVIRONMENTAL STUDIES, SEOUL NATIONAL UNIVERSITY**
  Master in Urban Planning, February 1996
- **YONSEI UNIVERSITY**
  Bachelor in Civil Engineering, February 1985

PROFESSIONAL EXPERIENCE

CHUNG-ANG UNIVERSITY
Professor, Department of Urban Engineering, March 2004 – Present

- Lectures: Traffic Engineering, Transportation Planning,
  Traffic Operation & Management, Urban Data Analysis
- Research: Traffic Flow Theory, Feasibility Studies for Several Highways
  Traffic Congestion Management, Driver Behavior & Autonomous Vehicles
  Urban Highway Design

KOREA TRANSPORT INSTITUTE
Researcher Associate, March 2003 – February 2004

- Research: National Highway Policy, Metropolitan Transportation Network System
  National Highway Traffic Data, Evaluation Study for New Administration City
  North Korea Highway Master Plan

KOREA LAND CORPORATION
Assistant Manager, May 1989 – May 1997

- Site Construction Supervisor of Ilsan New Town, Highway and New Town Design, Strategic Management, Development of Overseas Industrial Complex and New Town

COMMITTEE MEMBER ACTIVITIES

- National Design Evaluation Committee of MOLIT
- Design Evaluation Committee of Gyung-Gi Province
- National Green Growth Committee
- Traffic Impact Analysis Committee of Seoul City
- Traffic Operation and Regulation Committee of Seoul Police Department
- Urban Regeneration Committee of Seoul City

PUBLICATIONS

- J. Lee, T. Kim, J. Chung, and J. Kim (2016) Modeling lane formation in pedestrian counter flow and its effect on capacity, KSCE Vol. 20, No3, pp. 1099-1108.
- Sun, B., Wu, N., Ge, Y., Kim, T., and Zhang, H. M. (2016) A new car-following model considering acceleration of lead vehicle, Transport Vol. 31, No1, pp. 1-10.
- Kim, I., Kim, T., Sohn, K.(2013) Identifying driver heterogeneity in car-following based on a random coefficient model, Transportation Research Part C Vol. 36, pp 35-44.
- Kim, J., Chung, J., and Kim, T. (2013) The effect of psychological traits on mode choice behavior: an application to a new water transit system in Seoul, Korea, Transportation Planning and Technology Vol. 36, pp 547-566.
- Ko, M., Kim, T., and Sohn, K. (2013) Calibrating a social-force-based pedestrian walking model based on maximum likelihood estimation, Transportation Vol. 40, pp 91-107.
- Kim, T. (2012) A phase transition model based on driver reaction time and sensitivity, Transportation Research Record 2316, pp 38-46.
- Choi, J., Lee, Y., Kim, T., and Sohn, K. (2012) An analysis of metro ridership at the station-to-station level in Seoul, Transportation Vol. 39, pp 705-722.
- Kim, T., and Zhang, H. M. (2011) The interrelations of reaction time, driver sensitivity, time headway in congested traffic, Transportation Research Record 2249, pp 52-61.

- Chung, J., Kim, T., Choi, Y., and Baik, H. (2009) A Structural Equation Model of Activity Participation and Travel Behavior Using Longitudinal Data, Transportation Planning and Technology, Vol. 32, No.2, pp 163-185.

RESEARCH

- Modelling highway merging section traffic flow and development of traffic control technologies for autonomous vehicles, National Research Fund
- Feasibility study for rural highway 322 Jahan-Bunchun, LIMAC
- Roadway master plan study, Dongjak Province
- Development of technologies for improving convenience for pedestrian flow and transfers in urban railway stations, Korea Railway Research Institute
- Feasibility study of congestion mitigation for Seoul Express Beltway Jangsu-Gyeyang, KDI
- Master plan of congestion mitigation strategies for freeways in Seoul Metropolitan Area, Korea Expressway Corporation
- Analysis of driver behavior for the development of Korean roundabout design standard, Korea Transport Institute
- Development of traffic data evaluation technology, KAIA
- Development of Public Involvement Guidelines, Korea Transport Institute Education:

Speaker of <Session 1>

"Smart Mobility for Livable Cities"

Prof.Dr. S.K. Jason Chang, Senior Vice President, ITS- Taiwan,
Director, Advanced Public Transport Research Center,
National Taiwan University
Cell: +886-935178543 Fax: +886-223639990
skchang@ntu.edu.tw

Brief Biography:

S.K. Jason CHANG, Ph.D.

- Professor of Department of Civil Engineering and Director of Advanced Public Transport Research Center in National Taiwan University
- Vice President of ITS Taiwan
- Member of Board of Directors of ITS World Congress
- Advisor for Taipei City Government
- Advisory Board Member for Scientists for Cycling in European Cyclists' Federation
- Member of Board of Directors and Vice Chair of Scientific Committee, EASTS

Dr. Chang is a Professor of Department of Civil Engineering and Director of Advanced Public Transport Research Center in National Taiwan University. He is Vice President of ITS Taiwan and Advisory Board Member for Scientists for Cycling in European Cyclists' Federation. Prof Chang is very actively involved in int'l associations, including member of Board of Directors of ITS World Congress, BoD member for East Asia Society for Transport Studies. Prof. Chang has been served as an advisor for Taipei City Government for 23 years. Since 2003, he has also been invited as advisor on sustainable urban and transport development for many int'l NGOs, Asia Development Bank, the World Bank and various ministries as well as city governments in Taiwan, India, Indonesia, China and other regions around the world.

< 1st Afternoon Session >

< Session 2A >
"Benefit of Big Data in Transportation (including Logistics and Safety)"
Duration: 13:00 – 15:00
Room: Chatrium Ballroom

Moderated by Assoc. Prof. Dr. Sorawit Narupiti, Chulalongkorn University		
Speaker 1	**"Benefit of Big Data for Road Safety Audit and Improvement on Rural Road Network"**	Dr. Charkree Bumrungwong, Director of Road Safety Audit, Department of Rural Roads, MOT
Speaker 2	**"Big Data & AI for Safer Roads"**	By Dr. Napat Jatusripitak, Founder and CEO at Siametrics Consulting & Analytics, Thailand
Speaker 3	**"Visual Big Data for Traffic Analysis"**	Dr. Debaditya Roy, Research Fellow, Nihon University, Japan
Speaker 4	**"Metro Manila Transportation Network: Big Data Analytics and Applications (MMTN:BDAA)"**	Prof. Dr. Alexis Fillone, De La Salle U., The Philippines
Speaker 5	**"Applying Mobile Data for Transport Planning"**	Dr. Toshiaki Muroi, Research Fellow, Japan Transport and Tourism Research Institute, Japan

Speaker of <Session 2A>

"Benefit of Big Data for Road Safety Audit and Improvement on Rural Road Network"

Dr. Charkree Bumrungwong, Director of Road Safety Audit,
Department of Rural Roads, MOT
9 Phaholyothin Anusawari Bangkhen Bangkok 10220
E-mail: chakreeb@gmail.com

Brief Biography:

EDUCATION HISTORY

1992	Thammasat University Bachelor of Engineering (Civil Engineering)
1996	Saitama University Master of Engineering Program in Civil Engineering
1998	Saitama University Doctor of Engineering Program in Civil Engineering

WORK EXPEREINCE

Position	Places	Time length
Director of Office of Road Safety Audit, Public Works Engineer, Expert Level	Office of Road Safety Audit, Department of Rural Roads, Ministry of Transport	2016- Current
Public Works Engineer, Professional Level	Bureau of Planning, Department of Rural Roads, Ministry of Transport	2009- 2016
Public Works Engineer, Practitioner Level	Bureau of Bridge Construction, Department of Rural Roads, Ministry of Transport	2002- 2009
Public Works Engineer, Practitioner Level	Bureau of Bridge Engineering, Public Works Department, Ministry of Interior	2001- 2002

Speaker of <Session 2A>

“Big Data & AI for Safer Roads”

Dr. Napat Jatusripitak, PhD (ดร.ณภัทร จาตุศรีพิทักษ์)
19 Prachachuen 34 Rd. Bangkok 10800, Thailand
Tel. 091.812.4236
Email: contact@siametrics.com

Summary:

I found and run a Big Data and AI solutions company to help organizations get more out of their data. Applied economist by training, I have expertise in quantitative methods that strengthen causal inference and improve prediction accuracy. I am also a thought leader and public speaker on topics surrounding big data in Thailand.

Education:

PHD: APPLIED ECONOMICS | UNIVERSITY OF MINNESOTA | MAR 2018
 Interdisciplinary Center for the Study of Global Change Fellow (2014-2018); GPA: 3.95

MA: INTERNATIONAL ECONOMICS | JOHNS HOPKINS UNIVERSITY SAIS | MAY 2013
 Specialized in International Finance; GPA: 3.88

BA: MATHEMATICS & ECONOMICS | CORNELL UNIVERSITY | MAY 2011
 Honors with distinction in all subjects; GPA: 3.79

Experience:

CEO & FOUNDER | SIAMETRICS CONSULTING | MAY 2018 – PRESENT
· Lead and manage projects in areas ranging from human resource management to fraud detection
· Main clients are among SET50 companies with combined market capitalization over 500bn Baht
· Build DeepMap, the smartest geospatial database of Thailand

ANALYTICS ADVISOR | TRUE DIGITAL MEDIA & PLATFORM | JAN 2018 – PRESENT
· Advise the Chief Analytics Officer on big data strategy and commercial development
· Oversee alternative credit score development and hypertargeted marketing campaigns

DATA CONSULTANT | THE STOCK EXCHANGE OF THAILAND | JAN 2018 – APR 2018
· Built machine learning models using market microstructure database and user database

DATA STRATEGIST & RESEARCH ASSISTANT | UNIVERSITY OF MINNESOTA | MAY 2016 – FEB 2018
· De-identified and harmonized over 1.3 million records of HR data from Minneapolis Public Schools
· Built data warehouse that brought together scattered data on pre-hire and post-hire teacher characteristics, allowing my team to use machine learning to predict teacher effectiveness

RESEARCH ASSISTANT | HARVARD UNIVERSITY | JUN 2013 – JUL 2014

· Estimated the causal impact of an intensive college counseling program on college completion rates
· Analyzed over 20 GB of monitor-level hourly weather and air pollution data from NOAA and estimated the life-saving effect of air quality forecasts on premature deaths in the United States

Technical Skills:

QUANTITATIVE METHODS
· Logistic regression, LASSO, neural network, random forest, fixed effects and random effects regressions, regression discontinuity design, instrumental variable estimation, propensity score matching, control function, principal component analysis, factor analysis, Heckman selection, difference-in-differences

PROGRAMMING LANGUAGES & TOOLS
· Stata (Advanced); Tableau (Advanced); ArcGIS (Advanced); Python (Proficient); R (Basic)

Professional Activities:

Keynote: “Civic Data Science.” Digital Thailand Big Bang 2019, Thailand. October, 2019.
Speaker: “Using AI for transportation safety.” ITS World Congress 2019, Singapore. October, 2019.
Speaker: “Big data and AI for Safer Roads.” ATRANS conference, Thailand. August, 2019.
Speaker: “Data-driven Organization.” The Stock Exchange of Thailand, Thailand. July, 2019.
Speaker: “Data Analytics for Practitioners.” Siam Makro, Thailand. Jun, 2019.
Panelist: “Smart AI Strategies for Thai Businesses.” TDRI EIS Executive Briefing, Thailand. June, 2019.
Speaker: “Big Data and AI for Executives.” Toyota Motors Thailand. February, 2019.
Speaker: “Transforming Business with Data Science.” PTT Chemicals. February, 2019.
Author: “Big Data Strategy.” Forbes Thailand. October, 2018.
Panelist: “iTIC Forum 2018: Power of Data Sharing.” Thai Intelligent Traffic Information Center. October, 2018.

Panelist: “360 Degree of Technology & Innovation for Business Solutions.” Brother. October, 2018.
Speaker: “The Era of Artificial Intelligence: How will AI Affect Your Industry.” SCB Securities. September, 2018.
Discussant: “The Journey to Less-Cash Society: Thailand’s Payment System at a Crossroads.” Bank of Thailand Symposium 2018. September, 2018.
Keynote: “Big Data Strategy: From Concepts to Applications.” Digital Thailand Big Bang 2018. September, 2018.
Lecturer: “Practical Big Data Strategy: Class 1 & 2.” Government Savings Bank. September, 2018.
Lecturer: “Practical Big Data Strategy.” Bangkok Expressway and Metro Public Company Limited. September, 2018.
Speaker: “Digital Strategy: Capturing the Most Value from New Wave Technologies.” CTALK Putting Digital Transformation to Work. August, 2018.
Speaker: “AI in Finance: Alternative Credit Scoring.” SCB Abacus. August, 2018.
Keynote: “Practical Data Analytics in the Age of Artificial Intelligence.” Stock Exchange of Thailand. July, 2018.
Lecturer: “Intro to Alternative Credit Scoring.” Bank of Thailand. June, 2018.
Guest Speaker: “US-China Trade War.” SCB Investment Center, Thailand. May, 2018.
Panelist: “FinTech's role in increasing access to credit for the unbanked in Thailand using alternative credit scoring.” Thailand Institute of Justice, Thailand. May, 2018.
Special lecturer: “Data Science Applications in Economics.” Chulalongkorn University, Thailand. March, 2018.
Guest Speaker: “Investing in the Age of Big Data.” SCB Investment Center, Thailand. February, 2018.
Panelist: “Digital Economy เริ่มที่ไหน...จึงจะไปถึง.” ThaiPublica Forum. Thailand. December 21, 2017.
Panelist: “School and Teacher Preferences: Evidence from a Multi-stage Internal Labor Market.” The Association for Public Policy Analysis & Management Fall Research Conference, Chicago, IL. November 3, 2017.
Guest speaker: “Heterogeneity and the Private Contribution of Local Public Goods: Evidence from NYC311.” Thailand Development Research Institute. July 14, 2016.
Panelist: “Big Data: the New Competitive Advantage for Firms, Individuals, and Societies” ThaiPublica Forum “Big Data @ Life,” Bangkok, Thailand. July 7, 2016.
Panelist: “The Post-coup Economy: the Big Picture.” Thailand Update Conference, Weatherhead East Asian Institute, Columbia University, May 1, 2015.

Other Experience:
FOUNDER & CONTRIBUTOR| SETTAKID.COM| MAY 2012-PRESENT
COLUMNIST | THAIPUBLICA | OCT 2014 – PRESENT
COLUMNIST | STOCK2MORROW | SEP 2016 – PRESENT
TEACHING ASSISTANT | UNIVERSITY OF MINNESOTA | SEP 2015 – MAY 2016
TEACHING ASSISTANT | JOHNS HOPKINS UNIVERSITY SAIS | SEP 2012 – MAY 2013
SHORT-TERM CONSULTANT | WORLD BANK| MAY 2012 – JUN 2012

TREASURY INTERN | BANGKOK BANK| JUL 2012 – AUG 2012
INTERN | BANK OF THAILAND | JUN 2010 – AUG 2010
RESEARCH ASSISTANT |THE WHARTON SCHOOL| JUN 2009 – AUG 2009

A Summary Talk: Big Data and AI for Safer Roads in Thailand

The World Health Organization (WHO) estimates that in 2016 alone, over 20,000 people died as the result of a traffic accident in Thailand. Even more, from 2016-2019, over 200,000 traffic accidents occurred in Thailand. This is a serious societal and economic problem and we believe analytics and AI can be extremely helpful here.

Working with Thailand's Intelligent Traffic Information Center Foundation (iTic) and at least ten other governmental agencies, NGOs, and private stakeholders, my team and I utilize Big Data and Artificial Intelligence to create safer roads for Thailand.

First, we lay out some facts about traffic accidents from combining raw event data with other datasets. We highlight a few new facts about the spatial distribution of accidents. By dividing Bangkok into 250m grids, we find that 3.6% of grids account for over 50% of the accidents occurring in the city, suggesting that focused attention in these areas may be particularly cost-effective. Risks are also quite sticky: dangerous grids tend to remain dangerous overtime.

Second, we build a machine learning algorithm using a myriad of information—from past accident records to weather patterns— to predict accidents at the road-by-hour level 24 hours in advance. The outcome is a dynamic AI-powered risk map that authorities and first responders can use to optimize their operations.

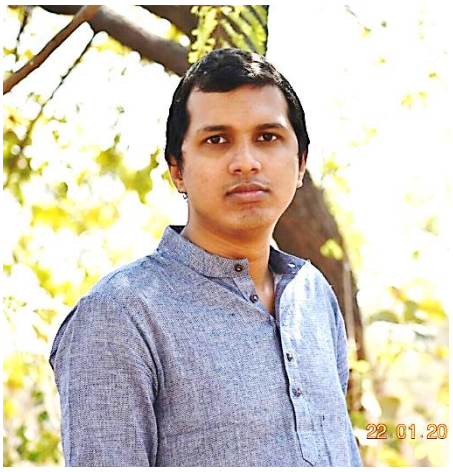
Third, we conduct careful causal inference studies analyses of key risk factors (e.g. places of interest and vehicle type) and public policies that may affect traffic accidents (e.g. sobriety checkpoints and a policy that limits alcohol sales during certain hours). We find that the presence of a bus stop in an area greatly increases the number of traffic accidents in that area, likely due to increased congestion. We find mixed support for the effectiveness of the 'drinking hours' policy, and evidence that police checkpoints are effective tools for accident prevention.

These results have important implications for road safety policy and suggest several pathways forward to reduce Thailand's alarmingly high rate of accidents and accident-related fatalities.

Speaker of <Session 2A>

"Benefit of Big Data for Road Safety Audit and Improvement on Rural Road Network"

Dr. Charkree Bumrungwong, Director of Road Safety Audit,
Department of Rural Roads, MOT
9 Phaholyothin Anusawari Bangkhen Bangkok 10220
E-mail: chakreeb@gmail.com



Brief Biography:

Debaditya Roy is currently a post-doctoral researcher under the M2Smart project funded by Japan Science and Technology Agency and Japan International Cooperation Agency at the College of Science and Technology, Nihon University in Japan.

He received his Ph.D. degree from the Indian Institute of Technology Hyderabad in the area of Computer Vision and Machine Learning in 2018.

He has published in journals like IEEE Transactions on Multimedia, IEEE Transactions on Image Processing, Pattern Recognition, and IEEE Transactions on Big Data, and conferences like IEEE ICIP, IEEE ICASSP, and IEEE ITSC. He serves as a reviewer for IEEE Signal Processing Letters and many conferences.

His research interests include deep learning and computer vision and their applications to human action recognition, emotion recognition, and traffic behavior analysis.

A Summary of Talk: Visual Big Data for Traffic Analysis in India

The Big Data revolution has impacted many fields and traffic analysis has been one of the biggest beneficiaries. In particular, visual big data in the form of videos from millions of dashboard cameras, surveillance cameras, and unmanned aerial vehicles for traffic monitoring has recently gained a lot of traction in making key decisions in transportation planning. The appeal of visual big data lies in the ability to use automated analysis using computer vision techniques that have improved significantly with the emergence of deep learning. These techniques can help in a variety of traffic analysis tasks like monitoring roadway traffic conditions during peak periods, traffic management and control, traffic counts, and traffic queue measurements. As surveillance cameras cannot be deployed to monitor all sections of roads, they are mostly used to monitor intersections which also follows the fact that nearly 40% of accidents occur at intersections. Hence, it is important in terms of traffic safety analysis that intersections are monitored. However, CCTV cameras are not the best solution for monitoring intersections as the vehicles are often occluded and cast shadows. Further, CCTV cameras have a limited field of view and cannot be used to monitor multiple lanes of an intersection.

Unmanned Aerial Vehicles (UAV) provide a top-view perspective that avoids occlusion and shadows and monitor all lanes of the intersection simultaneously. With the rise of low-cost and high-resolution cameras that can be mounted, UAVs are very effective for monitoring intersections. Especially, for non-lane based traffic like in India, aerial videos captured from UAVs can be used observing lane change maneuvers by vehicles that can lead to accidents. Further, the areas with the highest propensity of accidents also called “black spots” can be easily visualized and computed from aerial videos. The most essential task in the automated identification of these black spots is vehicle detection and tracking. Adopting highly successful deep learning-based techniques for vehicle detection and tracking require enormous datasets for training. Existing datasets like VIVID or Stanford Drone dataset are mainly captured for lane-based sparse traffic only. As the kinematics of vehicle interactions vary significantly for non-lane based traffic, the VisDrone dataset was developed for dense traffic. However, the VisDrone dataset is not really built for intersection analysis as the drones follow vehicles along the roads. Hence, for the task of intersection analysis of non-lane based traffic, we created the Nihon University CST Aerial Video (NUCAV) dataset containing 6 hours of aerial video footage from 5 busy intersections in the city of Ahmedabad in India under the M2Smart project funded by JICA and JST.

Annotation of large datasets is a challenge requiring enormous manpower and time. We were able to annotate 50000 frames in the NUCAV dataset (which is only 10% of the total dataset) resulting in close to 5.8 million vehicle detections and 4000 unique vehicle tracks. Such a large number of annotations helped us in training deep neural network architectures that demonstrate impressive performance on vehicle-type detection and tracking. Furthermore, the large number of vehicle trajectories from the NUCAV dataset also help us in identifying potential accident-prone regions at intersections.

Visual big data gives us the ability to develop traffic analysis solutions for India without the need for exact vehicle dimensions, turning radius, the distance between vehicles, and many other factors which have been traditionally considered for traffic analysis. Without such assumptions, the models developed using these training on large datasets can be used to analyze all types of intersections even without explicit training data on the same. For a country like India where it is difficult to demarcate road markings and actual road dimensions, visual big data-based approaches can achieve remarkable results.

References

Coifman, Benjamin, *et al.* "Surface transportation surveillance from unmanned aerial vehicles." Proc. of the 83rd Annual Meeting of the Transportation Research Board. 2004.

Speaker of <Session 2A>

"Metro Manila Transportation Network: Big Data Analytics and Applications (MMTN:BDAA)"

Prof. Dr. Alexis M. Fillone,
De La Salle University, Transportation Engineering Division
Department of Civil Engineering 2401 Taft Avenue, 1004,
Manila, Metro Manila, Philippines
E-mail: alexis.fillone@dlsu.edu.ph

Brief Biography:

Dr. Alexis M. Fillone is a full professor of the Transportation Engineering Division, Civil Engineering Department, De La Salle University, Manila. He has more than 25 years of teaching experience and around 15 years of experience in transport research focusing on travel behavior, urban transportation planning, and traffic impact studies. He also has several consultancy work on transport-related matters with national government agencies and the private sector. He has several publications in ISI/SCOPUS listed journals and currently has a Department of Science and Technology (DOST) - PCIEERD externally-funded research project entitled "Metro Manila Transportation Network: Big Data Analytics and Applications (MMTN:BDAA). He was also involved as one of the Associate Researcher of the Newton Fund research project entitled, Sustainable Transport and Resilient Cities, a 2-year research project (2015-2016). His current research interest is in travel behavior analysis, tourism planning and big data application in transportation.

A Summary of Talk: Metro Manila Transportation Network: Big Data Analytics and Applications (MMTN:BDAA)

This study discusses the Department of Science and Technology (DOST)-funded research project regarding the application of big data to Metro Manila's transport network. The primary objective is to model and assess the existing transportation network and transport-related facilities of Metro Manila as well as planned transport infrastructure projects and combination thereof, at the local (city) and metro-wide levels (Metro Manila) with the end objective of developing a transport database system. The database system would collate, integrate and update transport-related data and information on a Metro Manila wide scale, and at the same time relate these transport-related data to the population's socio-economic and demographic information (big data). Both static transportation planning software and a dynamic traffic simulation software will be used to model the transportation system of Metro Manila to capture the changing traffic conditions on its road network system.

Speaker of <Session 2A>

"Applying Mobile Data for Transport Planning"

Dr. Toshiaki Muroi, Research Fellow,

Japan Transport and Tourism Research Institute (JTTRI)
3-18-19(3F), torano-mon, minato-ku, Tokyo 105-0001, Japan
Tel：03-5470-8405 / Fax：03-5470-8401
E-mail ：muroi@jterc.or.jp

Brief Biography:

Mr. Muroi became a research Fellow at the Consulting Department of JTTRI in April 2011. Before the Consulting Department, He enrolled in the Research Department for 3 years in April 2008. His experience in the JTTRI is over 10 years.

Education:

Mr. Muroi's graduated a doctoral course in Transportation Engineering from Nihon University of Tokyo in 2008.

Experiences:

The main projects he engaged are as follows.

1) Utilization of Mobile · Big Data for Transportation Field
2) Analysis of effects introducing high-speed railway
3) Preparation of analysis manual on the introduction effect of urban railway
4) Study on alternative bus operation at the urban railway interruption after big earthquakes

A Summary of Talk: "Applying Mobile Data for Transport Planning"

In the Tokyo metropolitan area, approximately 19 million households live in 2015, and for traffic surveys, questionnaires are distributed to approximately 7% of households once every 10 years. We will distribute a large questionnaire of 1.4 million households in Tokyo. This survey costs about 1700 yen per person, and it costs of millions of dollars for one survey. We spend to a lot of money to investigate people's movement in the Tokyo Metropolitan area.

We need to convert about 1 million votes of questionnaire results into electronic data, expand the results to a whole number, and analyze them further. This survey is taking a long time, and it takes three years to produce results at least. First year to design and prepare to the questionnaire, second year to distribute and collect questionnaires, one year to make it a database and analyze to results. So there, A new method to replace questionnaires is being discussed in Japan.

We focused on Mobile phone's Big Data. By using big data collected from mobile phones, we can collect people's travel situations without spending much time and money. Utilizing these new demographics can be applied to various fields such as disaster prevention plan, public transportation plan, urban planning, and so on.

In Japan, there is data called "Mobile Spatial Statistics" provided by NTT DoCoMo. This mobile spatial statistic consists of two large pieces of data. First, if the user does not move, data is automatically communicated between the mobile phone and the base station once per hour. Second, when the user moves away from the base station's wireless service area and moves to another base station range, the mobile phone communicates signals to capture radio waves from the base station. Mobile spatial statistics collected by NTT DoCoMo are approximately 5 to 6 billion items of data per day.

There are other data as options in mobile phones big data, one is CDR(Call Detail Record). Mobile spatial statistics can collect data if you turn on the mobile phone (Not in the communication mode). On the other hand, CDR can collect data at the time of call / communication mode. Although CDR has less data than mobile space statistics, both are valid as mobile phone's big data. In addition to this, there is data that the application collects. For example, to estimate the extent of road congestion from usage data of applications. A variety of apps are already in widespread use in many ASEAN countries. The number of samples is small, but they make trend identification possible.

If the number of samples is small at the step of this OD table creation, "0" and OD pairs that deviate from reality increase. We need to collect huge samples to prevent and distributing a large number of surveys is expensive.

< IATSS Session 2B: Road Safety >
"Data Collection of Motorcycle Crashes"
Duration: 13:00 – 15:00
Room: The Curve, 2nd Floor

Moderated by Dr. Sumet Ongkitikul, Director, TDRI		
Speaker 1	**"Brief Intro of the Session"**	Ms. Mirjam Sidik, CEO, AIP Foundation, Vietnam
Speaker 2	"**Data Collection of Motorcycle Crashes: In Case of Bangladesh**"	Dr. Abu Talab, MD, Center for Injury Prevention and Research, Bangladesh
Speaker 3	"**Data Collection of Motorcycle Crashes: In Case of Malaysia**"	Prof. Dr.Shaw Voon Wong, Universiti Putra Malaysia
Speaker 4	"**Data Collection of Motorcycle Crashes: In Case of The Philippines**"	Prof. Dr. Ricard G. Sigua, University of the Philippines
Speaker 5	"**Data Collection of Motorcycle Crashes: In Case of Sr Lanka**"	Dr. Niranga Amarasingha, Senior Lecturer, Sri Lanka Institute of Information Technology
Speaker 6	"**Data Collection of Motorcycle Crashes: In Case of Thailand**"	Dr. Phathai Singkham, Department of Disease Control, Ministry of Public Health
Speaker 7	"**Accident Data Collection: In Case of Japan**"	Prof. Dr. Satoru Kobayakawa, Nihon University

Speaker of <Session 2B>

The Importance of Data Collection on Traffic Crashes, Executive Summary

Mirjam Sidik, AIP Foundation CEO

12th ATRANS Annual Conference, August 23, 2019, Bangkok, Thailand

Considering our roads are the current leading cause of death for children and young adults aged 5-29 years, the inclusion of road safety into the larger youth and adolescent health agenda is more crucial than ever. While road safety interventions over the last decade have contributed to an increase in education, knowledge change, and advocacy, data suggests that progress towards Sustainable Development Goal (SDG) target 3.6 – which calls for a 50% reduction in the number of road traffic deaths by 2020 – remains far from sufficient.

When analyzing road crash results, geographical region and country data cannot be dismissed. There continues to be a strong association between the risk of a road traffic death and the income level of countries. With an average rate of 27.5 deaths per 100,000 population, the risk of a road traffic death is more than three times higher in low-income countries than in high-income countries where the average rate is 8.3 deaths per 100,000 population. While road traffic fatality rates are decreasing in Europe and the Americas, they continue to rise here in Southeast Asia, where they lie over the world average.

Variations in rates also correspond with types of road users; vulnerable road users – pedestrians, cyclists and motorcyclists – represent more than half of all global deaths. Vulnerable users represented 59% of road deaths in Southeast Asia, with the majority comprised of motorized 2- and 3-wheelers (43%). With an increasing number of motorcycles on our roads, which are at higher risk for fatal injury, motorcycle-specific crash data is of the utmost importance.

As we now face an issue of inequity and social injustice, how can policy makers develop effective countermeasures to ensure the safety of vulnerable users on our roads?

Road crash data helps us understand crash and injury trends, identify risk factors, facilitate objective decision-making about resource allocation, and ultimately design and monitor effectiveness of programs.

Data can support lawmakers in setting targets, developing road safety action plans, identifying problem locations and times for police enforcement, and winning public support and demand for safer roads. Data can also illustrate the magnitude of the crisis, especially in the face of competing social and economic issues, and demonstrate the value of unpopular opinions to the public.

Lawmaking and policy enforcement depend on the accuracy and reliability of road crash data, but in many countries, such systems do not exist. In this keynote presentation, examples of effectively designed countermeasures in Cambodia and Vietnam that contributed to behavior change, and likely a reduction in road fatalities, will be discussed.

References:

Global Status on Road Safety, WHO 2018.

Speaker of <Session 2B>

Presentation Summary
Road Safety on Data Collection of Motorcycle Crashes

Dr. Md. Abu Talab

[1]Centre for injury Prevention and Research Bangladesh, Dhaka, Bangladesh

Major issues regarding accident data include reliable data source, variables involved, methods of collection, provisions for storage and retrieval etc. The current road accidents report form of Bangladesh is not comprehensive enough to conduct an in depth investigation. The form contains 69 fields of information from which only the general characteristics analysis of accidents can be carried out. This paper describes the process of accident data collection including data collecting agencies, reporting and recording system and data processing of accident database. It also includes identification and assessment of variables involved in accident and reviews the potential sources of errors in accident data collection. Accident statistics depend critically on the accuracy of data itself as well as on the reliability of the sequence of information links.

It is observed that the sources of accident data are biased due to under-reporting, particularly in the case of non-fatal accidents. However, the traditional data sources such as police data is also grossly under-reported in case of the fatal RTI events in Bangladesh. For example, police statistics showed 3160 deaths due to RTI in 2003, whereas the Bangladesh Health and Injury Survey (BHIS) reported 13,000 RTI deaths in the same year. Similarly, a recent police report showed 2538 deaths due to road crashes in 2012, much lower than the 21,316 road traffic deaths estimated by the WHO.

To address the gaps in data collection, process a standard tool needs to be developed and the extensive training of the data collectors has been recommended.

Speaker of <Session 2B>

Executive Summary
Data Collection on Motorcycle Crashes – Malaysian Perspective and Beyond

Collecting crash data is crucial to perform scientific analyses to identify objectively the gaps formulate appropriate initiative to improve road safety. At the same time, initiatives can be periodically reviewed to keep improving to yield better results, both in terms of efficiency as well as effectiveness.

In Malaysia, a number of organizations are collecting various crash data via various channels. When a crash took place, emergency services may be requested by dialing 999, the Public Service Answering Point (PSAP) in Malaysia. May it involve motorcycle or not, the basic crash data is digitized under the MERS999 and dispatch being arranged with computer-aided dispatch system. The data consist of but not limited to the crash location, crash type, involved vehicles, and some injury information. However, it is to be noted that the injury information is not verified by any medical professional but rather as described by the caller. Further verification is carried out by the hospital while arranging the dispatch. Basically, anyone involved or witness the crash can lodge such request. If a crash took place on the Malaysia highway, the main highway operators do collect crash data. It was normally done by respective emergency response team and/or highway patrol team. Traffic police is collecting road crash data on any reported and investigated crash. It is the most comprehensively mechanism to collect and digitize crash data for any road vehicle, including motorcycle. Digitized police reports by involved parties as well as witness, and the traffic police. Investigation officer of the traffic police will carry out appropriate investigation and follow up with any further action. Crash data together with relevant investigation findings, based on Police Report 27 pertaining road crashes, we then compiled into the police database management system. A total of 94 data fields were collected in each case, and these include an open-ended description of the crash, a sketch plan, and a location diagram.

All fatal crashes and those involved insurance claims would have to get the incident reported to the police, in order to carry subsequent action and process, such as issuance of death certificate, damage and injury claims, and any transfer of asset ownership. However, besides fatal crashes, it is noted that the police data is also suffering from underreporting challenge.

For research purpose, Malaysian Institute of Road Safety Research (MIROS) has a set of Police Data, but not the access to the system. The database management system is developed in-house and has no relationship or connection the police database. Sets of data was transferred offline and carried manually. In-depth crash data is being collected by MIROS as well. It is kept under separate database management system.

Similar to many efforts to collect and utilize crash data in other part of the world, Malaysia is facing challenges in doing so. Firstly how to enable collection of various data by various relevant authorities, agencies and organizations and institutionalize it. At present, it is still a struggle for injury detail, and rehab follow up data in Malaysia. Secondly, it would be the challenge of ensuring the competency and ability to acquire or extract the data accurately and timely. Even having the support to collect and the ability to do it accurately, one still needs to drive a conducive system to support further so that the willingness to report the details of the crash and get reported correctly. The entire report and data collecting system has be supported with continuous monitoring and evaluation to encourage good effort and identify setback on holding the accurate and timely data. In order to perform any meaningful and convincing scientific analysis, the amount of Crash data has to be vast enough.

This would lead to the challenge of managing huge data set. Malaysia is managing near to half a million crash reporting, and the data involved would be huge, especially the data to be managed carries over from year to year. An effective database management system is required, and upgrade from time to time with hassle-free migration has become a challenge. Data would just remain data and yield no real benefit of collecting them. It is important to acquire the ability to turn the data into useful information, in order to provide evidence to initiate any new intervention, to evaluate any exiting implementation, to quantify the impact of any ongoing effort. This data has to be used to drive crash prevention and improve road safety. The author concludes with three recommendations for the consideration of IATSS as the followings:

1. Forming IATSS Academic Advisory Board on Road Traffic Crash Data Management and Analysis with some funding support for
    - Joining the observatory development with similar influencing position for the upcoming observatory if materialized
    - Recommend data collection mechanism, management system requirements
    - Provide scientific advisory consultation and continual support to Asian countries towards institutionalizing crash data collection and management
    - Gather the regional needs, influence and position IATSS to the upcoming Global Ministerial Meeting
2. Explore and Establish Crash Data collection via non-conventional road safety and crash data stakeholders.
    - Sizable Private and public organization, utilizing UNSDG target reporting mechanism
    - Build capacity with effective Road Traffic Safety Management System for organizations where data is being gathered systematically and analyzed for continual improvement. ISO39001 would be a good tool to be explored and utilized
3. Establish similar mechanism and platform like IRTARD under OECD, but for Asian Countries, so data collection can be spread wider and being collected with tangible output (annual, or bi-annual reporting, etc), and specific focus shall be placed for Motorcycle Crashes.

Report by:
Professor Dr. Shaw Voon Wong
University Putra Malaysia
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Board of Directors, Malaysian Institute of Road Safety Research (MIROS), ASEAN Road Safety Centre
Special Advisor, Ministry of Transport & Communications Myanmar
Chairman, PIARC TC C2 Design and Operation of Safer Road Infrastructure
Convener, ISO TC241/WG5, ISO 39001 & ISO39002
Road Safety Expert, FIA High Level Panel

Speaker of <Session 2B>

A Summary of Talk: Motorcycle Crashes in Sri Lanka

Compared to other vehicle drivers, motorcycle riders are vulnerable road users as they often share the traffic space with fast-moving cars, buses and trucks, they are less visible, and also because they have lack of protection in the case of a crash. Therefore, motorcycle riders are often associated with high injury risks in the case of crashes. All Sri Lankan regulations for motor vehicles are applicable to motorcycles. The owners are required to register their vehicles and also obtain driving licenses to operate motorcycles. Every year thereafter, they are required to obtain annual revenue licenses. Motorcycle is popular among middle income and lowincome people in Sri Lanka and mainly used to commute to work and also used to transport goods, as well as recreational purposes. The most frequent vehicle in Sri Lankan road is motorcycle and the number of motorcycles is more than three times of the number of second most frequent vehicles, which are three wheelers. During 2012 in Sri Lanka, motorcycle riders are 1.4 times more likely to have a crash resulting in injury than three-wheeler drivers are.

This study provides the details of police-reported crashes which were obtained from Traffic Police Head Quarters' crash records, at all severity levels that occurred in Sri Lanka. The dataset contains information related to every police reported motorcycle crash in Sri Lanka integrating various driver-, vehicle-, environment- , and road-related characteristics that prevailed at the time of the crash. The severity of injury was determined and categorized as fatal, grievous injury, and non-grievous injury based on the level of injury sustained by the vehicle occupants.

Data pertaining to crashes involving motorcycles in Sri Lanka which occurred between 2009 and 2013 was summarized in this study. In this study the number of motorcycle-involved crashes were analyzed. There could be more causalities due to motorcycle-crashes than the number of motorcycle-involved crashes.

< Session 2C >
"Transport Innovation Challenge (Start-up)"
Duration: 13:00 – 15:00
Room: Ravipa 1, 4th Floor

Moderated by Dr. Nuwong Chollacoop, Head of Renewable Energy Lab., MTEC		
Speaker 1	**"Innovation Challenge in Moving towards more sustainable transport"**	Ms. Mellyana Frederika, UN Pulse Lab Jakarta, Indonesia
Speaker 2	**"Transport Innovation Change: Changing the way we move, electric vehicle (EV) startup"**	Mr. Daniël Scheerooren Consultant Sustainable Cities and Mobility at South Pole Southeast Asia
Speaker 3	**"What are the transport innovation challenges Smart Mobility"**	Ms. Patcharin Posirisuk, CEO, Sammitr Smart Mobility Co.,Ltd.
Speaker 4	**Grab: A Transport Innovation Challenge in the Digital Era**	Dr. Marian Panganiban, Regional Policy & Research Manager, GRAB
Speaker 5	**"Autonomous Vehicle: A Transport Innovation Challenge for startup"**	Asst.Prof.Dr. Nuksit Noomwongs Department of Mechanical Engineering, Faculty of Engineering, Chulalongkorn University, Thailand

Speaker of <Session 2C>

"Innovation Challenge in Moving towards more sustainable transport"

Ms. Mellyana Frederika, Programme Specialist
Wisma Nusantara, Jl. MH. Thamrin No. 59
Jakarta 10350 - Indonesia
Phone: +62-(0)21-3983-8473
E-mail: mellyana.frederika@un.or.id

Brief Biography:

I am a development practitioner with more than 15 years of experience in multilateral organisations. I am currently with Pulse Lab Jakarta, a joint initiative of Government of Indonesia and United Nations that is working to close information gaps in the development and humanitarian sectors through the adoption of big data, real-time analytics and artificial intelligence. I manage a portfolio across urban and regional dynamics where we combine data science and social research to facilitate cities across the region make sense of their increasingly interconnected, interdependent and complex world.
Key expertise: public policy, digital adaptation and transformation, smart city and urban management

EDUCATION:

Post Grad Diploma., Governance, Public Policy and Democratization, Institute of Social Studies, The Hague, The Netherlands, 2010

M.A., Urban Management, Institute for Housing and Urban Development Studies, Rotterdam, The Netherlands, 2001.

B.S., Engineering on Urban and Regional Planning, Institut Teknologi, Bandung, Indonesia, 1999.

PROFESSIONAL HISTORY:

January 2015 – Now
United Nations – Pulse Lab Jakarta, Jakarta
Programme Specialist - Urban-Regional Dynamics Lead
Pulse Lab Jakarta (PLJ) combines data science and social research to help make sense of this interconnected, interdependent, and complex world. I am responsible to facilitate our partners such as city government, other UN agencies or development programmes, to harness new digital data sources for policy making processes. I develop concept and conduct research to understand the user need and uncover opportunities, translating data – small and big, analog and digital - into actionable insights for our partners and decision makers in Indonesia cities.

February 2007 – Aug 2014
United Nations Development Programme (UNDP), Jakarta
Oct 2010 – Aug 2014: Project Manager of Provincial Governance Strengthening Program (PGSP).
I led a team of experts that worked on revising laws and regulations that clarify the role of different level of governments in the context of Indonesia's decentralization. The new revised law and regulations enable local governments to better planning basic services to their constituents. These models were successfully adopted and implemented by local governments.

Aug 2008 – Apr 2010: Project Manager a.i, Provincial Governance Strengthening Programme.
I navigated and led the project management unit went through a transition period from local governance project focusing on health and education sector at district level into a new wider scope decentralization project focusing on inter-governments mechanism to improve the of public service.

Feb 2007 – July 2008: Project officer, Building and Reinventing Decentralized Governance (BRIDGE).
I am responsible for the establishment of a 21 multi-stakeholder working groups that work on health and education sectors in all provinces in Sulawesi. The project had been redesigned into a new and more focused results; aimed to enhance the capacity of local government officials through implementing good governance principles, to improve public service through more interactive governance, and to strengthen public monitoring of the government through improved access to information

May 2006 – Jan 2007
Urban and Regional Development Institute (URDI) Banda Aceh and Jakarta.
I concluded the action-research activities and implemented a piloting of the energy renewable action plan and developed a final report to the main donor, The Royal Danish Government.

1999 - 2006
Independent Consultant/ Researcher. Illustrative consultancies include:

2003 Research Analyst for Inter-Island Transportation Project in Eastern Indonesia - BCEOM

2003 – 2006 Teaching:
Urban and Regional Planning Department, Universitas Pasundan
Economics Department, Universitas Parahyangan

1999 – 2002 Tourism Researcher at Centre for Tourism Research (P2PAR ITB)
PUBLIC ENGAGEMENTS
Speaker – Internasional Conference on Indonesian Architecture and Planning (ICIAP): **"Planning and Design in Disruptive Era"**, Indonesia 2018
Moderator - Indonesia's Star Provinces Panel at GovPay, the tax, payments, procurement and digital identity summit for Asia Pacific, Indonesia 2018
Speaker – 3Dexperience Forum: **Designing Sustainable Cities Together**, Indonesia 2017
Judge – WeGO Smart Sustainable City Awards, Russia 2017
Speaker - The 2nd Asia-Pacific Regional Forum on Smart Sustainable Cities and e-Government, **IoTs and Data Revolution for the Smart Sustainable City, Thailand, 2016**

Speaker – Civic and Youth Participation in the Wired Age, **Side Event at Preparatory Committee for Habitat III (PrepCom 3), Surabaya 2016**
Speaker - Social Media Week Jakarta, **The Impact of Technology for Consumer Behaviour, People Power and Workforce, Jakarta, 2016**
Speaker - IdeaFest, **Social Innovation Breakthrough, Jakarta, 2016**
Judge **– Big Ideas Competition for Urban Issues Using Data Innovation, 2016**
Judge **– Microsoft Imagine Cup, 2016**

CERTIFICATIONS

Digital Methods, from Digital Method Initiative University of Amsterdam, The Netherlands
Service Design, Summer Course from Commond Ground People, Italy
Data Analytics for Change Academy, The GovLab Academy Coaching Programs
Design Kit: The Course for Human-Centered Design, NovoEd
Narrative Journalism from Pantau Foundation, Indonesia

BLOGS (illustrative writings)

What is A Smart City Solution without A Citizen Perspective? [https://medium.com/pulse-lab-jakarta/what-is-a-smart-city-solution-without-a-citizen-perspective-100d6f9c5d47]
From One Smart City to Another: My Big Data Love Letter from Russia [https://medium.com/pulse-lab-jakarta/from-one-smart-city-to-another-my-big-data-love-letter-from-russia-1c933e8168e1]
Coming Together to Design Safe Transit Solutions for Women [https://medium.com/pulse-lab-jakarta/coming-together-to-design-safe-transit-solutions-for-women-c7a10b052c99]
How policy makers turn new digital data sources from opportunities into real solutions? [https://medium.com/@melly_frederika/how-policy-makers-turn-new-digital-data-sources-from-opportunities-into-real-solutions-9760f2169e6c]

Speaker of <Session 2C>

Daniël Scheerooren
Consultant Sustainable Cities and Mobility
at South Pole Southeast Asia
Bangkok Metropolitan Area, Thailand
Phone (Thai number /LINE): +66 8 2238 3049
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Brief Biography:

I strongly believe in the benefits of urban living but witness the downsides of its fossil energy consumption, such as poor air quality, urban heat islands and (on a larger scale) environmental stress and climate change. That is why I am passionate about reducing our fossil energy consumption. At the moment, by accelerating the adoption of electric mobility and renewable energy.

With a bachelor's in human geography, a master's in urban environmental management and a major in geo-information sciences, I have a broad societal and technical background. I am fascinated with technological innovations and like to work with people. I am a confident speaker, fluent in English and in my work. I enjoy facilitating workshop discussions and giving presentations.

Speaker of <Session 2C>

Ms. Patcharin Posirisuk, CEO,
Sammitr Smart Mobility Co.,Ltd
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Tel: +66-(0)2 408 2115, Cell: +66 (0)89-992 4684
E-mail: patcharin@ssmsmart.com

Brief Biography:

Education:

- 1992 King Mongkut's Institute of Technology Ladkrabang Bangkok, Thailand
  Bachelor Degree of Architecture

- 1987 Satri Rachinuthit School Udon Thani, Thailand
  Career / Work Experience

Experiences:

- Current CEO, Sammitr Smart Drive Co.,Ltd.
- CEO, Sammitr Smart Mobility Co.,Ltd.
- Director of The Federation of Thai Industry
- Director of Thai Auto-Parts Manufacturers Association
- Vice Chairman of Institute of Agro – Based Industries (F.T.I.)
- 2014 – 2018 : Chairman of Agricultural Machinery Manufactures Industry Club
- 1998 – 2002 : Business Development Manager, Sammitr Group

Speaker of < Session 2C >

Dr. Marian Panganiban, Regional Policy & Research Manager, GRAB
E-mail: marian.panganiban@grab.com

Speaker Bio

Marian Panganiban oversees public policy and research for Grab where she helps cities in Southeast Asia address key development challenges using data and technology. Prior to joining Grab, she was a research fellow with the Max Planck Institute for Research on Collective Goods and in the Max Planck Institute of Economics in Germany. She also previously worked as a financial sector analyst at the Asian Development Bank and as a consultant with the World Bank and the Health Policy Development Program of the USAID.

Grab: A Transport Innovation Challenge in the Digital Era

As we look towards the second half century of ASEAN, one of the most critical challenges facing the region, and also one ripe with opportunities, is the challenge of organizing ourselves for optimal and seamless mobility. The context for this challenge is the rapid urbanization and growth of the middle class. By 2030, our urban population is expected to reach more than 370 million. In most countries, the existing public transport is unable to cope and congestion is estimated to cost 2-5% of each country's GDP.

The presentation will tackle how technology can help improve individual commuting experience, optimize the transport system, and eventually re-shape the existing urban infrastructure. It will also draw on lessons from Grab's experience in Southeast Asia on how governments and private sector can work together to address mobility challenges in the region.

Speaker of < Session 2C >

Asst.Prof.Dr. Nuksit Noomwongs
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Tel: +66 (0)2 218 6610 Mobile: +66 (0)89-744-4889, +66(0)85-153-5222
E-mail: nuksit@gmail.com

Brief Biography:

I am a secretary at Smart Mobility Research Center since 2011. We are focusing on research about ADAS, Autonomous Driving, Diver behavior, EV and ITS.

Education:

Bachelor of Engineering in Department Mechanical Engineering, Chulalongkorn University
Doctor of Engineering in Mechanical Systems Engineering at Tokyo University of Agriculture and Technology

Affiliation:

- Vice President of Society of Automotive Engineers Thailand
- May 2006 – Present13 years 4 months
- Vice President in R&D at TSAE Vice President in R&D at TSAE

< Session 2D >

"Public Participation & Engagement"

(Accessibility: social inclusion, Safety: Empowerment and TOD: Lifestyle)

Duration: 13:00 – 15:00

Room: Ravipa 2, 4th Floor

Moderated by Asst. Prof. Dr. Varameth Vichiensan, Kasetsart University		
Speaker 1	**"Public Participation and Engagement in Road Safety in Thailand"**	Dr. Witaya Chadbunchachai, MD., Director for WHO Collaborating Centre for Injury Prevention and Safety Promotion, Khon Kaen Hospital
Speaker 2	**"Enhancing community road safety through public participation"**	Assoc.Prof.Dr. Varameth Vichiensan And Asst.Prof.Dr.Kanisa Rungjang Department of Civil Engineering Faculty of Engineering Kasetsart University
Speaker 3	**"Public Participation and Engagement in Transportation: In case of Japan"**	Prof. Dr. Atsushi Fukuda: Nihon U, Japan
Speaker 4	**"Public Participation and Engagement for Social Inclusion and Empowerment in Road Safety in Thailand"**	Dr.Thawilwadee Burikul , Director of Research & Development Office, King Prajadhipok's Institute
Speaker 5	**"Public Participation: Key Factor for Pedestrianization"**	Assoc.Prof.Dr.Viroat Srisurapanon, KMUTT

Speaker of <Session 2D>

"Public Participation and Engagement in Road Safety in Thailand"

Dr.Witaya Chadbunchachai
Director of WHO Collaborating Center on Injury Prevention and Safety Promotion
Expert Advisory Panel on Injury and Violence Prevention and Control, WHO-Geneva
Khon Kaen Hospital, Trauma & Critical Care Center
WHO CC on Injury Prevention & Safety Promotion
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Brief Biography:

1. Contact information

Name of the Institute:	Khon Kaen Hospital
Name of the Department/Centre:	Trauma & Critical Care Center WHO CC on Injury Prevention & Safety Promotion
Address:	Srichan Rd., Nai Muang, Muang, Khon Kaen, 40000, Thailand
Position	Director of WHO Collaborating Center on Injury Prevention and Safety Promotion
	Member in WHO Trauma and Emergency Care Services Advisory Group
	Member in Board of National Institute for Emergency Medical Service
	Chairman of Provincial Technical Support for Traffic Injury Prevention Project, Thai Health Promotion Foundation
	Expert Advisory Panel on Injury and Violence Prevention and Control , WHO-Geneva
Phone/Fax No.:	6643 337 958
E-mail:	buncha96@yahoo.com, dr.bunchachai@gmail.com
Website:	http://www.kkh.go.th/trauma/default.htm

2. Qualifications M.D., FRCS T

3. Honour, award received

Date Awarding Body
1992 Topnotch Physician Award, International College of Surgeon of Thailand
1994 Topnotch Physician Award, Medical and Disaster Institute, Medical Department
1995 Bronze prize in Paper Presentation Annual Academic Conference, Ministry of Public Health
1995 Golden prize in Paper Presentation Annual Academic Conference, Ministry of Public Health
1997 Mahidol – B Braun Award
2003 Personal excellent award in Traffic Injury Prevention, National Safety Council
2008 Gold Medal in UC Partnership Award, National Health Security Office
2010 Personal Excellent Award, Royal College of surgeon of Thailand
2012 Physician excellent award, Medical Council of Thailand
2015 Robert Danis Prize, International Society of Surgery

Speaker of <Session 2D>

"Enhancing community road safety through public participation"

Assoc.Prof.Dr. Varameth Vichiensan
And Asst.Prof.Dr.Kanisa Rungjang
Department of Civil Engineering
Faculty of Engineering, Kasetsart University
E-mail: varameth@gmail.com

Brief Biography:

Present Position: Associate Professor

Education:

- **B.Eng.** (Civil Engineering)
  Thammasat University, Thailand
  (SIIT Scholarship)
- **M.Eng.** (Civil Engineering)
  Asian Institute of Technology, Thailand
  (Royal Thai Government Scholarship)
  (Outstanding Academic Record Award)
- **Ph.D.** (Civil Engineering)
  Tohoku University, Japan
  (Japanese Government Scholarship)

Academic Society:

- Scientific Committee & Co-Chair of Special Interest Group H5: Transport in Developing Countries, World Conference on Transport Research Society (WCTRS)
- Research Committee, Asian Transportation Research Society (ATRANS)

Area of Interest:

- Integrated Land Use/Transportation Modeling and Planning
- Discrete Choice Analysis
- Spatial Statistics
- Freight Transport Standard
- Transport Safety Management
- Driver Education

Speaker of <Session 2D>

"Public Participation and Engagement in Transportation: In case of Japan"

Dr. Atsushi Fukuda
Professor of
Department of Transportation Systems Engineering,
College of Science and Technology,
Nihon University
E-mail: fukuda.atsushi@nihon-u.ac.jp

Brief Biography:

Professor Atsushi FUKUDA has served in the academic field for 30 years teaching and doing research in the field of transportation systems analysis and transportation planning. He was seconded by the Japan International Cooperation Agency (JICA) as Assistant Professor to the Asian Institute of Technology for two years. He has also fulfilled his responsibility as the member of the Advisory Committee for many ODA projects such as the Preparatory Survey for Bangkok-Chiang Mai High Speed Rail Development, the Study for the Blueprint for the 2nd Bangkok Mass Rapid Transit Master Plan for Bangkok Metropolitan Region, etc.
Prof. Fukuda has also led various feasibility studies on the Clean Development Mechanism, Nationally Appropriate Mitigation Actions (NAMAs) and Joint Crediting Mechanism (JCM) studies in the transport sector in the ASEAN region, such as Project to Support the Planning and Implementation of NAMAs in a MRV Manner（SPI-NAMA）in Vietnam, etc.
He has contributed for establishment of Accreditation System for Engineering Education in Japan as the board member of Japan Accreditation Board for Engineering Education (JABEE).

Honors and Awards:

1988	IATSS Dissertation Award, IATSS
1997	Best Presenter Award, 52th Annual Meeting of JSCE
2003	Best Paper in the Decision Technologies Track Award, 36th Annual Hawaii International Conference in System Sciences
2006	Excellent Practice Paper Award, the 3rd National Transport Conference, Ministry of Transport, Engineering Institute of Thailand, Khonkean University
2009	International Activity Incentive Award, Japan Society of Civil Engineers (JSCE)

A Summary of Talk: "Public Participation and Engagement in Transportation: In case of Japan"

When a policy that influences the lives of residents in a specific area is formulated, determined, or enforced, the residents of that area must participate directly in the policy process and express their intentions. Thus, public participation has been included in the planning and policy development process in order to collect and provide information from/to residents/stakeholders/nation, form consensus among government agency/residents/ stakeholders/other related bodies, and change attitude and/or behavior of users /residents/stakeholders.

Forms of Public Participation vary from institutionalized direct claims, referendums, audit requests, resident lawsuits, complaints, petitions, to non-institutional activities such as resident movements, dialogue meetings, signature activities, and street appeals. For example, referendum is used to directly ask people's approval or disapproval, while public comment is a system that publishes drafts to the public and makes decisions based on opinions and information provided to the public. On the other hand, public involvement is a method of community participation in promoting public policy and projects. By applying public involvement, information is provided to relevant parties from the beginning of the plan, opinions are feedback, the plan is improved, and consensus is promoted.

One of the reasons why public involvement has become necessary is not only the local residents and related organizations, but also many people and overseas people, especially NPOs and specialists in the fields related to planning have been able to access to the information easily by internet. To form consensus among those people and organizations, public involvement is quite necessary. On the process of environmental assessment, for example, public involvement is included as official procedure. Public involvement can be conducted by varied forms, such as open house, residents briefing, etc.

Public participation to change attitude and behavior of users, residents and stakeholders is applied for mobility management, traffic safety education, etc. In the case of traffic safety education, not only behavior of students who participate an activity but also behavior of supporters such as school teachers, parents, local policeman and traffic association staffs are changed. Hiyari Map development workshop is also good example to use public participation for traffic safety activities which share information regarding potential black spot and increase awareness of residents. Kamagaya model is advanced case to treat potential black spot by collecting Hiyari-Hatto information by Web system and improve treatments by feedback from residents.

It is concluded that Public Participation needs to be positioned as an official procedure in planning and be carried out on cyclic process of planning and implementation.

Speaker of <Session 2D>

"Public Participation and Engagement for Social Inclusion and Empowerment in Road Safety in Thailand"

Dr.Thawilwadee Burikul , Director of Research & Development Office, King Prajadhipok's Institute
E-mail: beebureekul@gmail.com

A Summary of Talk: Public Participation and Engagement for Social Inclusion and Empowerment in Road Safety in Thailand

Road traffic accident frequently involves multi-level society and this has become a demanding community issue where more serious participation is needed to improve driver's attitude in the future. Accident has a significant impact on quality of life and financial burden to the government and society (Masuri, et al, 2014 p.341-346). Public participation and engagement are important factors to bring in many sectors' contributions to help resolve these problems however, there are significant barriers to community participation were identified.

These are classified into two groups: personnel and planning issues. The former includes: reasons why people are often reluctant to become involved in projects in their communities, a lack of leadership, and a lack of skills. The latter includes: inappropriate program foci, inappropriate program evaluation, lack of resources, and a lack of sustainability. It was concluded that the barriers to community involvement in road safety initiatives are similar in many countries and apply to a wide range of health promotion interventions besides road safety. Awareness of the barriers and knowledge of their solutions can ensure that appropriate steps are taken to maximize the likelihood of community participation. (Howat, et al, 2001 p 257-270).

Road safety can progress with minimal community participation, and that community involvement is only one aspect of the road safety initiative. Nevertheless, it can make a significant contribution as part of an orchestrated and comprehensive approach to improving community safety.4 Road safety initiatives are more likely to be supported when the community feels they have a role in setting the agenda and is working towards solutions (258). In addition, in many countries, the community based development by public participation has been used to establish public awareness and lower road accidents. Thailand is the country that confront with high rate of road accidents, therefore, public participation and community based concept have been used by many organizations but unfortunately,the statistics of road accidents did not decline.

This paper aims to introduce the participatory democracy tools for strengthening the community engagement in road safety activities in order to achieve social inclusion and

empowerment. The methodologies are the related literature reviews and participatory observations in community engagement activities as well as content analysis. The concept of public participation

starts with the definition of meaningful public participation, ladders of public participation, tools that can be used for any public participation activities, stakeholders analysis. Deliberative Democracy is introduced to be one of the new mechanisms for civic engagement.

The deliberative democracy starts with the idea that "people have a stronger hand in shaping their future. Suspicious of big reforms and big institutions, they are starting where they are with what they have' (Mathews. 2014). According to Mathews, ***citizens must be producers of solutions***, not just consumers, they do this through a process of deliberation in which they learn rather than fight, the relationships they develop in this process build their capacity for problem-solving in general, This capacity building is a major benefit in itself, regardless of what problem is being solved. Moreover, the Community Safety model (adapted from Bureekul 2019) is introduced here. The "dialogical safety", "community-engaged" or "community-based road safety," road safety activity based in a community setting are similar concept that are characterized by interaction or dialogue with the community. Often professionals collaborate with people who may not otherwise normally actively engage in the activities.

Therefore, community-based road safety signifies a particular activity making practice, emphasizing community involvement and collaboration. 'Community Road Safety' activity is most often activity for social change and involves some empowerment of the community members who come together to create activities together and become network.

For implementation of public participation activities, the decision model that is integrated from the OODA loop decision making model (Boyd,, 1995) and the'Design Thinking Model' (Plattner and Leifer, 2011) , is adapted to fit the context of the communities. Then the Deliberative Democracy processes are applied.

The result shows that 'Democratic practices createcivic action that moves from within and then going out'. The process can enhance the engaged citizenship which helps invest for common good.

References

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Howat, Peter & Cross, Donna & Hall, Marg & Iredell, Helena & Stevenson, Mark & Gibbs, Susie & Officer, Jill & Dillon, Janice. (2001). *Community Participation in Road Safety: Barriers and Enablers*. Journal of Community Health. 26. 257-270.

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PlattnerH., C. Meinel, and L. Leifer, Design Thinking. Berlin: Springer, 2011

Speaker of <Session 2D>

"Public Participation: Key Factor for Pedestrianization"

Assoc.Prof.Dr.Viroat Srisurapanon, KMUTT
King Mongkut's University of Technology Thonburi
E-mail; viroat_s@yahoo.com

Current researches:

- Factors influencing school travel mode choices
- Promoting active transportation: walking and bicycling
- Improving the efficiency of taxi management system

Abstract:

Walking is a basic urban transportation mode. We are all pedestrians; any trip by any means includes at least a small distance covered on foot at the beginning and end of each journey. Walking associates to benefits in term of health and the environment

Up until now, various kinds of maintenance and improvements have been executed on the sidewalk in Bangkok. Is the sidewalk getting better or worse? The sidewalk nearby my campus shown in the presentation may answer the question.

Recently, very few children walk to school. From the previous study, only 3-6% of students go to school on foot. Why so small number? What is the problem? The most important component of the walkway system is the sufficient width. At least 2 meter wide sidewalk should be provided continuously from the origin to the destination of the trip. Unfortunately, in the real situation, this basic requirement is not fulfilled. Therefore, it looks unsafe to walk.

Public participation is quite rare in Thai society. Although they are directly involved to the problem, most of people think it is not their duty to act. They think it is the duty and responsibility of the related municipal authority. They leave the problems unsolved, just taking them as ironic joke issues in conversation. On the other hand, the in-charge municipal authority ignores their responsibility. He just does as same as they did in the past, like routine work. In this current circumstance, it seems somehow hopeless for Thai people to have good walkways in their community.

Public engagement is a key factor for both people and the related municipal authority to develop their city. Public engagement helps the municipal authority understand the current problems and the citizens' needs; meanwhile, it helps the citizens be communicated on the authority's plans and actions taken to respond to their problems and needs. Ideally, this will finally develop to public collaboration in the city.

< 2nd Afternoon Session >

< Session 3A >
"Voice of ATRANS for Public Opinion on Transport-Related Environment and Safety for VRU"
Duration: 15:20 – 17:20
Room: Chatrium Ballroom

Moderated by Assoc. Prof. Dr. Sorawit Narupiti, Chulalongkorn University		
Speaker 1	**"PM $_{2.5}$ Due to Urban Transport in Bangkok and Provincial Cities, and Its seriousness"**	Assoc.Prof.Dr. Chumnong Sorapipatana, ATRANS Board and Former Chairman of Energy Division, The Joint Graduate School of Energy and Environment, KMUTT
Speaker 2	**"Road Safety in Thailand Issue"**	Assoc.Prof.Dr. Pongrid Klungboonkrong,KKU
Speaker 3	**"Motorcycle safety and British tourists in Thailand"**	By Ms. Krittapol Kemakawat Head of Prevention and Engagement British Embassy, Bangkok Thailand
Speaker 4	**"Attitude and Behavior in Road Safety Issue"**	Mr. Hideaki Takaishi, Senior Chief Engineer, HONDA R&D Co.,Ltd. Japan
Speaker 5	**"Urban Planning for Active Transport Mode Issue"**	Assoc.Prof.Dr. Pawinee Iamtrakul, Thammasart University

Speaker of <Session 3A>

"PM $_{2.5}$ Due to Urban Transport in Bangkok and Provincial Cities, and Its seriousness"

Assoc.Prof.Dr. Chumnong Sorapipatana,
ATRANS Board and Former Chairman of Energy Division,
The Joint Graduate School of Energy and Environment, KMUTT
E-mail: chumnong.jgsee@gmail.com

Brief Biography:

Current Position: Board Committee Member of ATRANS
Board Committee Member of Klanpanya Institute for National Strategies

Former Position The Chairperson of Energy Division
Joint Graduate School of Energy and Environment(JGSEE),
King Mongkut's University of Technology Thonburi(KMUTT).

Working Experiences:

Worked as a top executive for several companies in industry for more than 20 years prior joining the Joint Graduate School of Energy and Environment(JGSEE), King Mongkut's University of Technology(KMUTT) in 2001.

His expertise is in the areas:

(a) Renewable Resources and Technology Assessment
(b) Energy and Environmental Policy
(c) Sustainable Transport Policy

Awards:

1. The honorable mention award for crude palm oil processing development from National Research Council of Thailand (1977).
2. The honorable mention award for a micro-hydro turbine design and development from the National Research Council of Thailand (2007).
3. The Medal of Honor for Research Achievement, King Mongkut's University of Technology Thonburi (2010)

Research publications:

More than 40 research papers were published in local and international journals and conferences, engaged in several national research projects of Thailand in the field of energy and environment, funded by Thailand Research Fund(TRF), Ministry of Energy, Ministry of Science and Technology, Ministry of Natural Resources and Environment, and state enterprise(PTT).

A Summary of Talk: PM $_{2.5}$ Due to Urban Transport in Bangkok and Provincial Cities, and Its seriousness

Assoc. Prof. Dr. Chumnong Sorapipatana, Board Committee Member of ATRANS

At the beginning of this year (2019), peoples in Bangkok and nearby areas were affected by $PM_{2.5}$. In fact, the Pollution Control Department (PCD) of Thailand has been motoring $PM_{2.5}$ since 2011. But this year was the first year that the public is aware of $PM_{2.5}$ issue.

What is $PM_{2.5}$? It is particulate matter, which is smaller than 2.5 micrometers (0.0025 mm.) in diameter. Most of it is incomplete combustion particles due to human activities.

How serious is it? The effect of $PM_{2.5}$ to human bodies can be pre-mature ceasing in the growth of lungs in children, Chronic Obstructive Pulmonary Disease (COPD) for children and adults, ischemia heart disease, and stoke for aging peoples or even leading to lung cancer in a long term.

Report from Pollution Control Department (PCD) showed that $PM_{2.5}$ in Bangkok and nearby areas mainly stems from particulate emissions of vehicles' tail pipes; in particular, from diesel engines which contribute more than 50%, others are from industry and agriculture open burning. Concentration of $PM_{2.5}$ is generally critical in the Winter Monsoon season because of the phenomena of vertical temperature inversion lapse due to cold front from Siberia. As a result, it traps on toxic emitted pollutants over the city.

To remedial impacts of $PM_{2.5}$ from urban traffic, both short term and long term measures are necessary. The key concept of approach solutions is: (a) eliminate $PM_{2.5}$ at sources, (b) prevent inhaling of $PM_{2.5}$ by peoples, and (c) improve, regulate, monitoring and control $PM_{2.5}$ emission standards towards to non-motorized mobility and sustainable transport.

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Speaker of <Session 3A>

"A Summary of Talk: Road Safety Issues and Challenges in Thailand"

Associate. Professor. Dr. PongridKlungboonkrong
Sustainable Infrastructure Research and Development Center (SIRDC), Department of Civil Engineering, Faculty of Engineering, KhonKaen University, Thailand
Email: ponklung@gmail.com

Brief Biography:

Position

- Deputy Director for Administrative Affairs, - Sustainable Infrastructure Research and Development Center (SIRDC), KhonKaen University(KKU).
- Director of Excellent Center of Traffic and Transportation System Management in the Upper Northeastern region of Thailand, under the collaboration between Office of Transport and Traffic Policy and Planning (OTP) Ministry of Transport and KKU.

Education:

1999: Ph.D. (Transport Systems Engineering), University of South Australia, Australia.
1989: M.Eng. (Transportation Engineering), University of Manitoba, Canada.
1984: B.Eng. (Civil Engineering), KKU, Thailand.

Working Experiences:

- **2018 – Present**Member of the Transportation and Logistics Committee for the Engineering Institute of Thailand Under H.M. The King's Patronage
- **2015 –present**Asia Transportation Research Society (ATRANS) Board member
- **2013**World Bank International Consultant on road safety in Nepal
- **2004 – 2005**Associate Dean for Research and International Affairs, Faculty of Engineering, KKU

Honors and awards (if any)

- In 2009, Dr PongridKlungboonkrong received **the best paper prize (Practical Paper) awarded** by The Engineering Institute of Thailand under H.M. the King's Patronage at the 6th National Transport Conference, Thailand.
- In 2003, Dr PongridKlungboonkrong received **the Thailand Transportation and Traffic Innovation Award 2003** form the Prime Minister organized by the Office of Transport and Traffic Policy and Plan (OTP), Ministry of Transport, Thailand.

- In 1999, Dr PongridKlungboonkrongrecieved **the Yasoshima's Prize** for the best paperin the 3rd Eastern Asia Society for Transportation Studies (EASTS) Conference, Taipei, Taiwan.
- In 1996, Dr PongridKlungboonkrongwas awarded **the Rodney Vaughan's prize**for the best paper in the 18th Conference of Australian Institute of Transport Research (CAITR), Brisbane, Australia

A Summary of Talk: Road Safety Issues and Challenges in Thailand

Associate. Professor. Dr. PongridKlungboonkrong

Sustainable Infrastructure Research and Development Center (SIRDC),Department of Civil Engineering, Faculty of Engineering, KhonKaen University, Thailand

Based on the Global Status Report on Road Safety 2018 and three Road Accident Fatalities (TAFs), the main typeof vehicles contributing to RAFs in Thailand and other Asian countries were 2/3 wheelers. As the number of registered 2/3wheelers per 100,000 population in Asian countries increased, the RAFs per 100,000 population caused by 2/3 wheelers were also rised. As the GNIs per capita of Asian countries enhanced, the road safety law enforcement performances were generally improved. Based on the estimated RAFs per 100,000population, Thailand is one of the most dangerous countries on the earth. Based on the new Thailand RAFs prediction model, the estimated RAFs per 100,000 populationin 2020 will be 3 times greater than the expected target. Consequently, Thailand will never achieve the Sustainable Development Goal (SDG) for road safety issues.During 2011-2017, as the RAFs database systems of Thailand was found inaccurate and unreliable. Consequently, the development of a systematic and integrated road safety database system for Thailand is crucially needed. As the speed limit law enforcement scores were the worst, urgent actions on the enforcement of the speed limit law is critically needed. As motorcycles are the most dangerous on-road vehicles in Thailand, the urgent road safety actions to deal with this crisis are indispensably needed.

Keywords: Road Accident Fatalities (RAFs), fatalities per vehicle, fatalities per population, Asian countries, Road safety issues and challenges.

Speaker of < Session 3A >

"Motorcycle safety and British tourists in Thailand"

Ms. Krittapol Kemakawat, Head of Prevention and Engagement, Consular, British Embassy | 14 Wireless Road | Lumpini | Pathumwan | Bangkok | 10330
Desk +66(0)2305 8278 | Mobile +66(0)81 8200445
Fax +66 (0) 23058296
Email: krittapol.kemakawat2@fco.gov.uk

Brief Biography:

A Disaster Preparedness and Response Practitioner with Extensive Experience in contingency Planning.

Experience

- Consultant

World Bank Group
January 2017 – present 2 years 8 months
Washington DC, USA

- Head of Disaster Management and Humanitarian Assistance, Asean

The Asean Secretariat
August 2016 – November 2016 4 months
Greater Jakarta Area, Indonesia

- Foreign and Commonwealth Office 9 years 1 month

- Regional Crisis Advisor for South East Asia

July 2009 – July 2016 7 years 1 month
Bangkok Metropolitan Area, Thailand
Lead Crisis Preparedness And Response For British Embassy Bangkok
Plan And Deliver Crisis Management Training (Tabletop, Semi-Live, Walk Through) Simulations For British Embassies And Consulates In South East Asia
Provide Advice To Deputy Head Of Missions To Ensure Country Crisis Management Plan Is Robust And Up To Date

- Contingency Planning Officer

July 2007 – July 2009 2 years 1 month
Bangkok Metropolitan Area, Thailand

Speaker of < Session 3A >

"Road Safety and HONDA Technology Concept"

Mr. Hideaki Takaishi, Senior Chief Engineer
Honda R&D Co., Ltd.
Email: Hideaki_Takaishi@n.t.rd.honda.co.jp

Brief Biography:

Innovative Research Excellence,Safety & Human Factor and
Automobile Center, Technology Development Division 9

Career:

1987：Honda R&D Co., Ltd. Automobile R&D Centerjoin

1993：Project leader of First-generation Odyssey

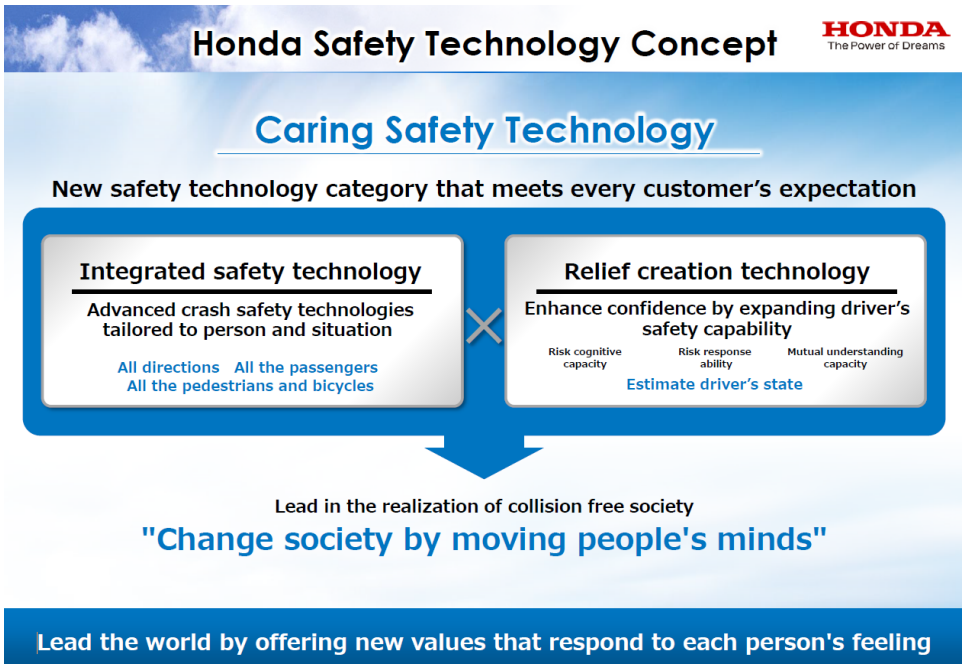
2000：Honda R&D Co., Ltd. Automobile R&D Center/Chief Engineer

2004：Product Technology Strategy Office

2008：Honda R&D Americas.

2011：Honda Motor Co.,Ltd.Corporate Planning Department

2016：Honda R&D Co., Ltd. Automobile R&D CenterSenior Chief Engineer



Speaker of <Session 3A>

Name… Associate Professor Dr. PAWINEE IAMTRAKUL
Position… - **Instructor**, Department of Urban Environmental Planning and Development, Faculty of Architecture and Planning, Thammasat University, Thailand, 2006 – present.
- **Director,** Center of Excellent in Urban Mobility Research and Innovation, 2019- present.
Contact Address… Faculty of Architecture and Planning,
Thammasat University
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Brief Biography:

Associate Professor Dr. PAWINEE IAMTRAKUL is

- **Urban and Transportation planning** – considering all aspects related to urban transport; sustainable transport, road safety, public transport and non-motorization.
- **Infrastructure Planning and Development** – demand and supply analysis, land use and infrastructure planning, sustainable infrastructure development.
- **Integrated Planning** – considering the smart integration of all urban elements; land use, infrastructure, economics, social, energy and environmental.

Education:

- **Ph.D. (Urban and Transportation Planning),**
  Saga University, Saga, Japan, 2005; Dissertation Topic: Development of A Quantification Framework to Assess the Interaction of Recreation Behavior and Preference of Park Users.
- **M. Eng (Infrastructure and Transportation Engineering)**,
  Asian Institute of Technology (AIT), Pathumthani, Thailand, 2002;
  Thesis Topic: Identifying Factors Inducing Severe Injury with Motorcycles through the Developed GIS-Based Accident Data Management System: A Case Study in KhonKaen, Thailand.
- **B. Eng (Civil Engineering),**
  Sirindhorn International Institute of Technology (SIIT), Thammasat University, Pathumthani, Thailand, 2000; Thesis Topic: Study on Neural Networks for Structural Analysis.

Working Experiences:

- Instructor, Department of Urban Environmental Planning and Development, Faculty of Architecture and Planning, Thammasat University, Thailand, 2006 – present.
- Assistant Dean for Academic Promotion, Department of Urban Environmental Planning and Development, Faculty of Architecture and Planning, Thammasat University, Thailand, 2006 –2018.
- Visiting Professor, Department of Civil Engineering and Architecture, Graduate School of Science and Engineering, Saga University, Saga, Japan, December, 2011
- Post-Doctoral, the Department of Development and Planning, Aalborg University, 2010.
- Guest Lecturer, Bauhaus-University, Weimar, Germany, June, 2010
- Visiting Lecturer, Universitas Gadjah Mada, Yogyakarta, Indonesia, November, 2007.
- Guest Lecturer, Master of Urban and Environmental, Faculty of Architecture, Kasetsart University, Thailand, 2007- present.
- Guest Lecturer, Bachelor of Transportation Engineering, Faculty of Civil Engineering, Suranaree University, Thailand, 2008- present.
- Reviewer of Transport Policy, 2010.
- International Scientific committee (ISC) of Eastern Asia Society for Transportation Studies (EASTS), 2010.
- Reviewer of the International Journal of Thai Society for Transportation & Traffic Studies (TSTS) 2010– Present.
- Reviewer of Lowland Technology International Journal, Institute of Lowland Technology, Saga University, Saga, Japan 2006 – Present.
- Research Associate, Asian Institute of Technology (AIT), Thailand, 2005 – 2006,
- Research Assistant, Saga University, Japan, 2005
- Research Assistant and Laboratory Supervisor, Asian Institute of Technology (AIT), Thailand, 2002
- Technical Training, General Engineering Public, Co. Ltd., Thailand, 1999

Honors and awards (if any)

- Erasmus Mundus Mobility for Life Scholarship (2018) for lectureship at Szechenyi Istvan Egyetem / Szechenyi Istvan University, 2018.
- Erasmus Mundus Mobility for Life Scholarship (2017) for lectureship at Szechenyi Istvan Egyetem / Szechenyi Istvan University, 2017.
- Training Road safety Award (2017) : Road Safety In-depth Accident Investigation Project, 15-20 May 2017
- Thammasat University Research Awards (2016): Mega project from research supporting by the Rockefeller Foundation.
- Erasmus Mundus Mobility for Life Scholarship for lectureship at Szechenyi Istvan Egyetem / Szechenyi Istvan University, 2016.

- Thammasat University Research Awards (2014): Best Presentation and Best Paper Awards from 1st Asia Future Conference 2013, Asia in the world-Potentials of Regional Cooperation, 8-10 March 2013. Bangkok, Thailand.
- Thammasat University Research Awards (2014): Best Presentation and Best Paper Awards from 1st Asia Future Conference 2013, Asia in the world-Potentials of Regional Cooperation, 8-10 March 2013. Bangkok, Thailand.
- Best Presentation Awards (2013) for "The Association of Transportation and Land Use Planning towards Sustainable Urban Energy Planning" from, 1st Asia Future Conference 2013, Asia in the world-Potentials of Regional Cooperation, 8-10 March 2013. Bangkok, Thailand.
- Best Paper Awards (2013) for "The Association of Transportation and Land Use Planning towards Sustainable Urban Energy Planning" from 1st Asia Future Conference 2013, Asia in the world-Potentials of Regional Cooperation, 8-10 March 2013. Bangkok, Thailand.
- TRF-CHE-Scopus Young Researcher Award (2011), The Thailand Research Fund.
- Thammasat University Research Awards (2010): Young Researcher Award.
- Erasmus Mundus Mobility for Life Scholarship for a Post-Doc position of the Department of Development and Planning, Faculties of Engineering, Science and Medicine at Aalborg University, 2010.
- Summer Course 2010, Development within a Low Carbon World: Preparing Professionals for Participatory Approaches in Planning and Implementing Climate Change Policies, August 5-13, Seameo Biotrop Campus, Bogor, Indonesia, supported by Centers of Excellence (Ministry of Education, Sports, Science and Technology (MEXT) of Hiroshima University, Japan, 2010.
- Exchange Program for East Asian Young Researchers of Japan Society for the Promotion of Science (JSPS), Initiative of Building Arts and Sciences Interchange for Asian Region Energy Security Under the collaborative with Faculty of Environmental Engineering, The University of Kitakyushu, Japan, 2010.
- Prime Minister's Road Safety Award (2009), Council of Thai Engineering.
- Thammasat University Research Awards (2009): Prime Minister's Road Safety Award.
- Exchange Program for East Asian Young Researchers of Japan Society for the Promotion of Science (JSPS), Following up program for young researchers leading the sustainable Asia, Graduate School for International Development and Cooperation (IDEC) of Hiroshima University, Japan, 2009.
- Thammasat University Research Awards (2008): Best Dissertation Awards.
- Best Dissertation Awards (2008) from Office of the National Research Council of Thailand (NRCT).
- Best Paper Awards (2003) for "Evaluation of Public Park Location Using Voronoi Diagram" from 9th International Student Seminar on Transport Research (ISSOT).
- Japanese Government (Monbukagakusho) Scholarship, 2002-2005.
- Best Student Awards (Hisamatsu Prize) from Asian Institute of Technology (AIT), Pathumthani, Thailand, 2002.
- New Zealand Government Scholarship (Full Scholarship), 2000-2002.
- Sirindhorn International Institute of Technology Scholarship (Full Scholarship), 1996-2000.

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