

*e-ASIA Joint Research Program
Progress Report*

1. Project Title: Intelligent Integrated Transport for Smart Life

2. Joint Research Period: Jun.26th,2016 ~ March 31st,2020

3. Principal Investigators:

- Japan: Kenji DOI, Professor , Osaka university
 - Planned Funding Period: Jun.26th,2016 ~ March 31st,2020
- Thailand: Wasan Pattara-atikom , Principal Researcher & Head of Intelligent Transportation System Laboratory, National Electronics and Computer Technology Center
 - Planned Funding Period: Month, Day, Year – Month, Day, Year
- Philippines: Alexis Fillone, Professor, De La Salle University
 - Planned Funding Period: Month, Day, Year – Month, Day, Year

4. Summary of the Progress of the Joint Research:

IoH (Internet of Human) based travel behavior survey technique (GeoTracker Experiment) was developed. With this tool, you can understand everyday commuting and school activities from urban suburban residential areas to urban areas and migratory behaviors in urban areas. Especially visualize the quality of intermodal connection between transport modes. The Japanese side did this visualization work and traffic behavior analysis.

5. Scientific Achievements and Implemented Activities (Research Exchange, Workshop, Publication, etc. if any):

**For this item, please fill in the attached Excel file.*

6. Future Goals and Plan of Activities within and after the project period:

1) Simultaneous vision-led and consensus-led approach

This research puts emphasis on the visioning of people's life in a "moderately-growing and resilient society" supported by: a)well-connected urban cores and functions, b)hierarchical public transport with higher social usability, c)low carbon and efficient transport systems, d)assurance of human security and safety. The QoL evaluation considering diverse values of people is integral to the simultaneous pursuit of vision-led and consensus-led approaches.

2) Leap-frog strategy with "avoid, shift and improve" stages

Leap-frog strategy encourages developing countries to avoid past trends in motorization and urban sprawl that has aggravated emissions, and instead "Leap-frog" to a position in which the measures advocated in developed

countries can be more readily implemented.

3) CPS(Cyber-Physical Systems)-based approach for planning, design, maintenance, and security monitoring

In the domain of physical transport systems, the main concern lies in poorly connected and individually governed infrastructures by different authorities that pursue their own local goals and operate using the local policies. The CPS contributes to the coordination of such fragmented and decentralized decision-making systems and also to the enhancement of capacity/consensus building by ICT that connects physical space with cyber one.

7. Recommendations and Comments to the Program (if any):
(ex. Any support to request from the Program in order to achieve item 6.)

Lists of Achievements and Implemented Activities

1. Original Publication of Articles etc.

【Notes】

Please fill in **only the achievements of this project** by country in order of publication date. Only “published” is targeted, but please write “in press” too only for Final Report.
Please count Proceedings with peer review as original paper.
The information on this form is only disclosable. Please submit Non-disclosable information in a separate file.

1. 1 Original Publications (Articles co-authored among Research Teams)

All Authors' Names, Title, Journal Name, Volume, Edition, Page, Year of Publication	DOI Code	Publication Status	Remarks (e.g. publication in top level journals etc.)
Taro Kagaku and Jiro Kagaku, Distinct roles of MLOCK and ROCK in the regulation of membrane	doi: 10.1083/jcb.201506	in press	

0 Total

1. 2 Original Publications (Articles by Single Team only)

All Authors' Names, Title, Journal Name, Volume, Edition, Page, Year of Publication	DOI Code	Publication Status	Remarks (e.g. publication in top level journals etc.)	Country name of the team
Taro Kagaku and Jiro Kagaku, Distinct roles of MLOCK and ROCK in the regulation of membrane	doi: 10.1083/jcb.201506	in press		Thailand
Zhenyu Gao, Masanobu Kii, Atsuko Nonomura, Kazuki Nakamura, Urban expansion using remote-sensing data and a monocentric urban model, Computers, Environment and Urban Systems,	https://doi.org/10.1016/j.compenus.2016.08.001	published		Japan
Masanobu Kii, Kenji Doi, Kazuki Nakamura: Urban Planning Research in the Climate Change Era; Transdisciplinary Approach Toward Sustainable Cities, in Robert Alvarez Fernandez, Sergio Zubelzu, Rodrigo Martinez (eds.), Carbon Footprint and the Industrial Life Cycle, 2017,	10.1007/978-3-319-549	published		Japan
Takumi OGOSHI, Mikiharu ARIMURA and Takumi ASADA, DEVELOPMENT OF DOWNSCALING METHOD FOR THE HOURLY POPULATION INFLOW ESTIMATION BY USING RBF NETWORK, Journal of Japan Society of Civil Engineers, Ser. D3 (Infrastructure Planning and Management), Vol.73, No.5, Vol.53, p. I 483-I 491, 2017	doi:10.2208/jscejipm.73.1	published		Japan
Arimura M, Asada T and Ogoshi T, Estimation of the Factor of Population Inflow in Inner City by using the mobile Spatial Statistics – The Case of Obihiro City, Japan –, Proceedings of the Eastern Asia Society for Transportation Studies, Vol.11 (2017)		published		Japan

4 Total

Lists of Achievements and Implemented Activities

2. presentations at Academic Conferences etc. (Seminars, Workshops, Symposia)

【Notes】
Please fill in **only the achievements of this project** by country in order of presentation date.
The information on this form is only disclosable. Please submit Non-disclosable information in a separate file.

2. 1 Conference Presentations (Joint Presentations among Research Teams)

Date	Type of Presentation	Speaker, "Title", Conference Name, Location, etc.
March 4, 2018	Guest/Invited Speaker	Taro Kagaku, "xxx", yyy, Tokyo,

0

Total

2. 2 Conference Presentations (by Single Team)

Date	Type of Presentation	Speaker, "Title", Conference Name, Location etc.	Country name of the team
March 4, 2018	Guest/Invited Speaker	Taro Kagaku, "xxx", yyy, Tokyo,	Thailand
May 17, 2016	Guest/Invited Speaker	Yoshitusugu Hayashi, "Smart Shrink Strategy based on QOL-cost, QOL- CO2 performance",Leipnitz Institute Seminar,Dresden,Germany	Japan
July 8, 2016	Guest/Invited Speaker	Yohitsugu Hayashi,Smart Growth/Shrink Strategy for Low Carbon and Well-being City,SURE Conference,	Japan
September 1, 2016	Guest/Invited Speaker	Yoshitsugu Hayashi, "Sustainable Transportation for a Big City",The 3rd Thailand Rail Academic Symposium, Bangkok,	Japan
November 12, 2016	Guest/Invited Speaker	Yoshitusugu Hayashi, "Modelling for Evaluation of Transport Sustainability and People's Happiness", COP22 side event by International Transport Forum,Marrakesh, Morocco	Japan
December 19, 2016	Guest/Invited Speaker	Yoshitusugu Hayashi, "Policy Making based on Quality of Life performance against Infrastructure Cost, Better for Everyone",International Conference on Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC 2016),IIT-Bombay, India,	Japan
November 4, 2016	Oral Presentation	森本 拓磨・浅田 拓海・有村 幹治, "都市計画基礎調査データを用いた居住地分布の逐次的中期予測手法の開発", 第54回土木計画学研究発表会・秋大会,長崎大学	Japan
February 4, 2017	Oral Presentation	中田 竣也・浅田 拓海・有村 幹治, "Twitterデータによる北海道新幹線開業前後の地域拠点ワードの共起パターン比較", 土木学会北海道支部平成28年度年次技術研究発表会, 北見工業大学	Japan
2016/10/6-8	Oral Presentation	Said Moqem Sadat, "Flood Prevention Strategy to Reserve Quality Ground Water for Kabul Future Development",The 3 rd International Conference on Universal Village, Nagoya,	Japan
2016/10/6-8	Oral Presentation	Faridoon Afshar, "A Study On Growth Control Strategy Applying Urban-Agriculture Concept In Kabul City",The 3 rd International Conference on Universal Village, Nagoya,	Japan
2016/10/6-8	Oral Presentation	Nangialai Yousufzai, "Rapid Strategic Consensus Building in Land Readjustment in Kabul",The 3 rd International Conference on Universal Village, Nagoya	Japan
2016/10/6-8	Oral Presentation	Eyosiyas Etana, "A Web-Based Real Property Updating System for Efficient and Sustainable Urban Development: A Case Study in Ethiopia ",The 3 rd International Conference on Universal Village, Nagoya	Japan
2016/8/4-6	Oral Presentation	Liyang Fan, "Enhancing Universal Health Coverage by means of ICT for Sustainable Aging Society",2016ICME International Conference on Complex Medical Engineering	Japan
	Oral Presentation	生越拓実, 有村幹治, 浅田拓海:RBFネットワークによるモバイル空間統計のダウンスケーリング, 土木計画学研究発表会, 2016年5月(北海道大学)	Japan
2017/9/18-21	Oral Presentation	Arimura M, Asada T and Ogoshi T, Estimation of the Factor of Population Inflow in Inner City by using the mobile Spatial Statistics - The Case of Obihiro City, Japan -, Eastern Asia Society for Transportation Studies,The 12th Conference in Ho Chi	Japan

14 Total

Lists of Achievements and Implemented Activities

3. Workshops, Seminars, Symposia and Other Events (Organized by the Project)

【Notes】
Please fill in **only the achievements of this project** in order of event date.
The information on this form is only disclosable. Please submit Non-disclosable information in a separate file.

Event duration	Name of Organizer	Title of the Event	Location (Country, City, Venue)	Number of Participants (Including Team Members)	Overview
Mar 4-16, 2018	Taro Yamada	○○○○○	Germany, Hamburg, ○○○○	10	
Feb. 1-2, 2017	Kenji DOI	Kickoff-meeting of e-Asia Joint Research Program Intelligent Integrated Transport for a	Philippines,Manila,Conference Room, 7th Floor, Henry Sy Sr. Hall ,De La Salle University	13	
Sep.13,2017	Kenji DOI	e-asia Meeting in Bangkok	Bangkok,Thailand,Meeting room, Level 32 &	12	

2Total

Lists of Achievements and Implemented Activities

4. Record of Research Exchanges

【Notes】

Please fill in the record of **research exchange only of this project**.

“Duration of exchange” is not the number of days stayed on the site, but the number of days from departure to return home.

The information on this form is only disclosable. Please submit Non-disclosable information in a separate file.

Date of Departure	Date of Return	Last Name & First Name	Country of Affiliation	Affiliation	Position	Exchange Destination (Country, City, Research Organization etc.)	Description of Exchange Content/Purpose	Duration of Exchange (autocompleted)
January 6, 2016	January 16, 2016	Taro Yamada	Japan	Yamada University	Professor	NANOTEC, NECTEC, Bangkok	〇〇	11
2017/1/31	2017/2/3	Kenji DOI	Japan	Osaka University	Professor	Philippines, Manila, De	Kickoff-meeting of e-Asia Joint Research	4
2017/1/31	2017/2/3	Ikuo SUGIYAMA	Japan	Kobe Institute of Computing	Professor	Philippines, Manila, De	Kickoff-meeting of e-Asia Joint Research	4
2017/2/1	2017/2/3	Hiroto INOI	Japan	Osaka University	Assistant Professor	Philippines, Manila, De	Kickoff-meeting of e-Asia Joint Research	3
2017/9/10	2017/9/15	Hiroto INOI	Japan	Osaka University	Assistant Professor	Thailand, Bangkok,	e-asia Meeting in Bangkok	6
2017/9/9	2017/9/15	Kazuki NAKAMURA	Japan	Meijo university	Associate Professor	Thailand, Bangkok,	e-asia Meeting in Bangkok	7
2017/9/11	2017/9/13	Teruaki YOKOYAMA	Japan	Kobe Institute of Computing	Lecture	Thailand, Bangkok,	e-asia Meeting in Bangkok	3
2017/9/10	2017/9/14	土肥俊祐	Japan	Osaka University	Student of graduate	Thailand, Bangkok,	e-asia Meeting in Bangkok	5
2017/9/10	2017/9/14	洪百賢	Japan	Osaka University	Student of graduate	Thailand, Bangkok,	e-asia Meeting in Bangkok	5
2017/9/11	2017/9/14	FILLONE ALEXIS	Philippines	De La Salle University	Professor	Thailand, Bangkok,	e-asia Meeting in Bangkok	4
								0
								0
								0

Total (Person) 9

Total (Person-day) 41

Lists of Achievements and Implemented Activities

5. Patent Applications

[Notes]
Please fill in **only the achievements of this project** by country in order of presentation date.
The information on this form is only disclosable. Please submit Non-disclosable information in a separate file.

5. 1 Independent Applications by Single Team

Application Number	Name of Patent/Patent Name	Application Date	Patent Applicants (Fill in All Members)	Publication Number (leave blank if unpublished)	Inventor	Country of Application	Registration Number (leave blank if unregistered)	Country Name of the Team
WO20xx-xxxxxx		January 21, 2016	○○ Univ、Univ.of xx	WO/2016/xxxxxx	○○○○、○○・○○	PCT	WO20xx-xxxxxx (20xx.xx.xx)	Thailand

0 Total (Number of Application)

0 Total (Number of Registration)

5. 2 Joint Applications

Application Number	Name of Patent/Patent Name	Application Date	Patent Applicants (Fill in All Members)	Publication Number (leave blank if unpublished)	Inventor	Country of Application	Registration Number (leave blank if unregistered)
WO20xx-xxxxxx		January 21, 2016	○○ Univ、Univ.of xx	WO/2016/xxxxxx	○○○○、○○・○○	PCT	WO20xx-xxxxxx (20xx.xx.xx)

0 Total (Number of Application)

0 Total (Number of Registration)

Lists of Achievements and Implemented Activities

6. Awards

【Notes】

Please fill in **only the achievements of this project** by country in order of date of Award.
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Date of Award	Name of Award	Recipient	Remarks	Country Name of the Team
December 24, 2015	〇〇 Prize	Taro Yamada		Thailand

0

Total