

# The 8<sup>th</sup> JOINT WORKSHOP HELD IN JAKARTA, INDONESIA

From 30<sup>th</sup> Jan to 1<sup>st</sup> Feb

The 8<sup>th</sup> Joint Workshop for the technology and policy research of Road and Transport was held in Jakarta by NILIM, Japan and IRE, Indonesia (\*) with sister organizations from 30<sup>th</sup> Jan to 1<sup>st</sup> Feb.

(\*)IRE: Institute of Road Engineering, Ministry of Public Works, Indonesia

## 1. The theme for this time WS

In this 8<sup>th</sup> Joint Workshop, picked up five themes focused on;

- 1) 2-Motor Cycle Environment
- 2) Traffic Volume Survey using Image processing Technology (IPT)
- 3) Traffic Accidents Black Spot Countermeasures
- 4) Tunnel And Underground Structure
- 5) Asbuton Research Project To Environment Mitigation



Cordial Call  
(Dr. Hermanto Dardak)



Cordial Call  
(Mr. Grait Sutadi)



Group Photo (at ARD)

## 2. Outline of Technical Session

### 1) 2-Motor Cycle Environment

The following themes were discussed;

1. Japanese policy to road environmental problems of air pollution, noise and greenhouse gases,
2. Survey on emissions of motorcycles and future countermeasures in Indonesia,
3. Estimations of the effect to reduce CO<sub>2</sub> emissions by switch motorcycles and 4-wheel vehicles based on Japanese theory on traffic capacity,
4. Model of Influence from motorcycle emission in Indonesia,
5. Progress report on joint Research of Guideline Development for Environmentally Friendly Road, Using Motorcycles,
6. Contents of the poster presentation on this joint research in REAAA conference 2013.

As a result, it was evident that the following terms needs;

1. Survey and accumulate the CO<sub>2</sub> emissions' data of motorcycle on actual roads to develop the factors by travel speed,
2. Consideration of the effect of the specialized lanes installed for only motorcycles to estimate the change of CO<sub>2</sub> emissions,
3. IRE needs to compare the graph from NILIM about relationship between CO<sub>2</sub> emissions and motorcycle speed and also the relationship between motorcycle proportion and motorcycle speed.

We decided the following next actions;

1. IRE progress the survey on CO<sub>2</sub> emissions of motorcycle on actual roads, using the converted calculations from fuel consumption,
2. NILIM progress the study on consideration method of the effect by installed the specialized lanes for motorcycle, using traffic simulator or survey data at the installed lanes in Indonesia,
3. 3) Both sides begin to write the book on this joint research results toward the joint publishing of 2014.



### 2) Traffic Volume Survey using Image processing Technology (IPT)

Agreed that the study focus for the field survey in 2013 is to verify the applicability of the combination use of ITP and LPL system.

Specified a method for the survey (simultaneously videotaping the same traffic by 5 cameras from various angles (0, 15, 30, 45 and 60 degrees from the vertical) and LPLs, which are currently used in Indonesia.

Agreed to submit a paper for the EASTS conference in Sept. 2013 to report our findings so far.



### 3) Traffic Accidents Black Spot Countermeasures

Indonesia has announced the results of making video recordings of intersections where the traffic volume is large and the risk of traffic accidents considered to be high in the cities of Bandung and Bali and studying safety countermeasures against high level conflicts which tend to occur frequently according to the videos, and a method of clarifying conflicts based on image processing. According to the results of the study of safety countermeasures, the traffic safety countermeasures that Indonesia studied are presumed to be appropriate, and Japan has proposed countermeasures which will presumably be effective at the intersections considered. Image processing was presumed to be in a state in which it is usable to a certain degree, but Indonesia wanted to further improve image processing methods, so it was proposed that if safety at the intersections is evaluated, it will probably be practical to categorize intersections according to number of intersecting streets, number of lanes, intersection angle etc., then analyze the present situation for each category to clarify the characteristics of actual conflicts with making tree correlation analysis. And, it was proposed to consider and determine the minimum requirements about what kind of data needs to analysis for each categorized intersection.

Japan introduced traffic safety countermeasure management methods and guard fence installation standards.



### 4) Tunnel And Underground Structure

At this meeting about the tunnel, the information exchange was performed relating the Indonesia's first road tunnel where construction was planned by 2014 and a design in progress. In addition, about a tunnel auxiliary method, possibility method adopted in this tunnel, construction examples in Japan were introduced and progress of guideline about the auxiliary method was confirmed. Also the contents and a future work process were discussed. Furthermore, about the guideline on tunnel facilities that Indonesia side has a need for in future, Japan side introduced a Japan guideline and we confirmed it is future agenda.



### 5) Asbuton Research Project To Environment Mitigation

In order to utilize natural asphalt resources in Indonesia, various research and development have been conducted in the bi-lateral cooperation. In this WS, both sides presented research papers and discussed technical issues such as modified asphalt products and full extraction procedures. Both sides agreed future collaboration especially for assistance of plant-scale extraction technologies and improvement of AsButon guideline / specification.



### 3. Reference (History of the Cooperation)

At the 18th Conference of Research and Development of Public Works in Asia (on the theme of Unique Road-Policy Applied to The Regional Conditions and Issues), the National Institute for Land and Infrastructure Management (NILIM) and the Institute of Road Engineering (IRE) signed a memorandum concerning the cooperation activities at NILIM in TSUKUBA, November 2009.

Under this memorandum, the NILIM and IRE will continually share research information by, for example, jointly holding technical seminars and will actively exchange researchers to strengthen links between NILIM and Asia and to form international human networks, thereby providing technical supports for the growth in Asia.

2009.06 Pre-meeting in Jakarta and Bandung

2009.11 Tsukuba, MoU(C) agreed in general

2010.03 Bandung, (1st Joint Workshop for targeting the themes)

2010.06 Tsukuba, joint meeting for Bali coming symposium.

2010.10 International Symposium in Bali

(2nd Joint Workshop to declare the strategy for cooperative researches)

2011.01 Jakarta, (3rd Joint Workshop to make the Road maps (1))

2011.06 Sulawesi, (4th Joint Workshop to make the Road maps (2) and site observation)

2011.09 Technological Tour in Japan for modernizing experimental Equipments and Facilities of IRE

2011.10 Lombok, (5th Joint Workshop / Bilateral Seminar)

2012.03 Jakarta and Bandung, (6th Joint Workshop including River and Water Resource issue)

2012.06 Batam, (7th Joint Workshop Road maps (Bridge / Tunnel) and Open Seminar (Long Span Bridge and Tunnel Technology))

2012.06 Trilateral Workshop for the Interim Report in Tsukuba

(International Research and Promotion Division)