

**Proceedings of
The 5th Japan-China Joint Seminar on City and ITS
Low-Carbon Urban Planning and
Transportation Policies**

August 23~24, 2009

Reception Hall (2F), Faculty Club, Hiroshima University (Higashi-Hiroshima Campus)



23~24 August, 2009, HIROSHIMA UNIVERSITY

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(Higashi-Hiroshima Campus)

Organizers

Hiroshima International Center for Environmental Cooperation (HICEC)
Center of Asian Safe Mobility Research (ASMO), Hiroshima University

Co-organizers

Toyota Transportation Research Institute (TTRI), Graduate School for
International Development and Cooperation (IDEC), Hiroshima University

Sponsors

Electric Technology Research Found of Chugoku
Toyota Motor Corporation

Supported by

Japan Society for Civil Engineering (JSCE), Hiroshima University

Local Organizing Committee

Chair: Prof. Akimasa Fujiwara, Directors of HICEC and ASMO, Vice Dean of IDEC

Secretary General: Assoc. Prof. Junyi Zhang

Committee Members: Assoc. Prof. Makoto Tsukai, Assis. Prof. Hiroshi Shimamoto,
Assis. Prof. Masashi Kuwano, and Assis. Prof. S.B. Nugroho

P R E F A C E

With the rapid increase of population and the progress of motorization in Asian cities, urban and transportation issues, such as urban sprawl, environmental and energy issues, traffic accidents, and the declining mobility issues of low-income and disabled people, are becoming more and more serious. These issues should be properly resolved in order to realize sustainable Asian mobility society with a balanced consideration of efficiency, environment and energy, and social equity and so on. Especially, development trends in China, whose total CO₂ emissions are ranked in the second place in the world (but the level of emissions per capita is much lower), could have various influences on the sustainable development in Asia and the remaining part of the world. On the other hand, aiming to realize a low-carbon society, various countermeasures have been taken and promoted in Japan in recent years. Under such circumstances, the Japan-China Joint Seminar on City and ITS was first proposed and held by Nagoya University in 2005 when EXPO 2005 AICHI took place. Since then, the seminar has been regularly organized by turns by the researchers in both countries, as shown below.

The first seminar: *Urban Development and ITS for the Future of Asian Cities*

Nagoya City, July 10-11, 2005, organized by Nagoya University

The second seminar: *Urban Development and ITS for the Future of Asian Cities*

Harbin City, July 30-31, 2006, organized by Harbin Institute of Technology

The third seminar: *Transportation and Urban Planning*

Kumamoto City, August 4-5, 2007, organized by Kumamoto University

The fourth seminar: *ITS for a Better Transportation Society*

LangFang City, July 17-18, 2008, organized by Tsinghua University

It is expected that such academic exchange activities among researchers and practitioners in the field of urban and transportation in both countries could contribute to a better understanding of the urban and transportation issues, enhance research potentials and promote joint research, and consequently provide useful insights into policy decisions. In the fourth seminar, it was decided to hold the fifth seminar in Hiroshima. For this purpose, it is a great honor for Hiroshima International Center for Environmental Cooperation (HICEC: <http://hicec.hiroshima-u.ac.jp/>) and Center of Asian Safe Mobility Research (ASMO: <http://www.hiroshima-u.ac.jp/asmo/>), Hiroshima University to organize the fifth seminar under the theme “*Low-Carbon Urban Planning and Transportation Policies*”. The co-organizers are Graduate School for International Development and Cooperation (IDEC), Hiroshima University, and Toyota Transportation Research Institute (TTRI).

This seminar is financially supported in part by Electric Technology Research Found of Chugoku and Toyota Motor Corporation. Japan Society for Civil Engineering (JSCE) also provides organizational supports.

The local organizing committee would like to express our sincere gratitude to all the above organizations for their kind supports.

Prof. Akimasa Fujiwara
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PART ONE

CLIMATE CHANGE AND LOW-CARBON SOCIETY

PART TWO

SMART PLANNING OF

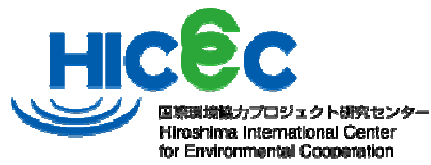
TRANSPORTATION NETWORK

PART THREE

SAFETY AND SECURITY

PART FOUR

INNOVATIVE METHODOLOGY



Graduate School for
International Development and Cooperation



TOYOTA

ELECTRIC TECHNOLOGY RESEARCH FOUNDATION OF CHUGOKU

