Joint Usage / Research Center, Tokyo Polytechnic University **March 9 ~ 10, 2017**

International Workshop on Gusty Wind, Thermal Environment, and Energy Saving

Organized by Joint Usage / Research Center, Tokyo Polytechnic University

Co-organized by Japan Association for Wind Engineering

Supported by The Society of Heating, Air-Conditioning and Sanitary Engineers of Japan, The Meteorological Society of Japan, Japan Society of Civil Engineers, Architectural Institute of Japan

Introduction / Objectives

Wind Engineering Research Center (WERC) at Tokyo Polytechnic University (TPU) was adopted as the Joint Usage / Research Center (JURC) by the Ministry of Education, Culture, Sports, Science and Technology in Japan, and is now actively promoting joint researches by taking advantage of the research results and facilities available. From this year, the 2nd stage of JURC was started, aiming to promote the collaborative researches with overseas researchers. In this workshop, as part of Inter Pacific-rim Collaborative Research on Wind Engineering (IPCR-WE), the efforts of each country on the various researches on the characteristics of gusty wind, countermeasures for damages, evaluation and countermeasures of thermal and air environment, energy-saving technology of buildings will be discussed.

Topics

- Characteristics of gusty wind
- Countermeasures of gusty wind-induced disasters
- Indoor and urban air quality
- Building energy efficiency

Keynote Speakers

G. Kopp (Western University, Canada)

S. Lee (Chungbuk National University, Korea)

Z. John Zhai (University of Colorado at Boulder, USA)

Contacts

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Program (Tentative)

Thursday 9 March 2017

15:00 ~ 17:00 Technical Tour

17:30 ~ 19:30 Ice Breaker Reception

International Workshop on Gusty Wind, Thermal Environment, and Energy Saving

Friday 10 March 2017

09:30 ~ 09:40 Opening Address

Keynote Speech

9:40 ~ 10:30 Characteristics and Prognosis of Thunderstorm Wind Gust *by S. Lee, J.Y. Kim (Korea)*

10:30 ~ 11:20 Wind Speed Estimation from Observed Damage in Tornadoes *by G. Kopp (Canada)*

11:30 ~ 12:20 Inverse Tracking of Indoor and Outdoor Pollutant Sources with Limited Sensor Outputs *by Z. John Zhai (USA)*

Parallel Session for Structural Wind Engineering

13:30 ~ 14:00 Current Status of Laboratory Tornado Simulation Studies and Investigations on Their Interaction with Structures *by G.R. Sabareesh (India)*

14:00 ~ 14:30 A Brief Report of Gusty-Wind-Induced Damages in Taiwan *by Y.L. Lo (Taiwan)*

14:30 ~ 15:00 Effects of High Intensity Winds on Buildings and Structures in Vietnam *by V.T. Trung (Vietnam)*

15:00 ~ 15:30 Numerical Study of the Effects of Rotating Forced Downdraft in Reproducing Tornado-like Vortices *by S. Cao (China)*

16:00 ~ 18:00 To be updated.

Parallel Session for Environmental Wind Engineering

13:30 ~ 14:00 Mix-mode Ventilation in Green Buildings: Fundamental Research and Engineering Practices *by B. Lin (China)*

14:00 ~ 14:30 The Air Exchange Rate of the Window Gaps Ventilation under the Condition of the Atmospheric PM2.5 Pollution *by C. Chen (China)*

14:30 ~ 15:00 Design Strategies of Improving Natural Ventilation for Residential Buildings in Taiwan *by Y.S. Tsay (Taiwan)*

15:00 ~ 15:30 Indoor Built Environment to Prevent Infections in Health-care Facilities (tentative) *by M. Sung (Korea)*

16:00 ~ 18:00 To be updated.

18:00 ~ 18:10 Closing Address