

International Workshop on Wind Effects on Buildings and Urban Environment

PROGRAM

Place

- Icebreaker (March 10): Student hall
- Keynote and Transdisciplinary sessions: Main conference room (6th floor of main building)
- Parallel sessions: Room 011 (Structural WE) and Room 012 (Environmental WE) (1st floor of main building)
- Dinner (March 11): Student restaurant

Reception

- March 10: Student hall
- March 11 and 12: Main conference room (6th floor of main building)

Session Overview

March 10 (Sunday), 2019

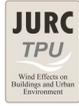
- 16: 00 ~ 17: 30 Technical Tour
- 17: 30 ~ 19: 00 Icebreaker Reception

March 11 (Monday), 2019

- 8:50 ~ 9:00 Opening Address
- 9:00 ~ 9:30 General Report of 6 Year's Collaborative Activity
- 9:30 ~ 10:20 Keynote Session I
- 10:30 ~ 12:00 Transdisciplinary Session I
- 13:00 ~ 14:30 Transdisciplinary Session II
- 14:50 ~ 16:05 General Session I (SWE) and II (EWE)
- 16:15 ~ 17:30 General Session III (SWE) and IV (EWE)
- 17:50 ~ 20:00 Dinner

March 12 (Tuesday), 2019

- 9:00 ~ 9:50 Keynote Session II
- 10:00 ~ 11:30 Transdisciplinary Session III
- 12:30 ~ 13:45 General Session V (SWE) and VI (EWE)
- 13:55 ~ 14:55 General Session VII (SWE) and VIII (SWE)
- 15:00 ~ 15:10 Closing Address



International Workshop on Wind Effects on Buildings and Urban Environment

March 10 (Sunday), 2019

16:00 ~ 17:30	Technical Tour (Atsugi campus, Tokyo Polytechnic University)
17:30 ~ 19:00	Icebreaker Reception (Student hall, Atsugi campus, Tokyo Polytechnic University)

March 11 (Monday), 2019

08:50 ~ 09:00	Opening Address (Main building, 6 th floor, Main conference room)
09:00 ~ 09:30	General Report of 6 Year's Collaborative Activity (Main building, 6 th floor, Main conference room)
	Keynote Session I Session chair: Y.C. Kim (TPU) (Main building, 6 th floor, Main conference room)
09:30 ~ 10:20	001 Detection, simulation, modelling and loading of thunderstorm outflows to design wind-safer and cost-efficient structures <i>Giovanni Solari (University of Genova, Italy)</i>
10:20 ~ 10:30	Coffee Break
	Transdisciplinary Session I Session chair: A. Yoshida (TPU) (Main building, 6 th floor, Main conference room)
10:30 ~ 10:45	002 Pedestrian-level wind speed around isolated square type buildings: Effect of height, width, aspect ratio <i>Yukio Tamura, Qingshan Yang (Chongqing University, China)</i>
10:45 ~ 11:00	003 Interference effects of high-rise buildings based on aerodynamic and aero-elastic database <i>Yuan-Lung Lo (Tamkang University, Taiwan)</i>
11:00 ~ 11:15	004 Wind tunnel experiments and numerical simulations of pedestrian-level wind environment around tall buildings <i>Bowen Yan (Chongqing University, China)</i>
11:15 ~ 11:30	005 The effect of buildings layout on flow over urban area <i>Biao Li (Harbin Institute of Technology, China)</i>
11:30 ~ 11:45	006 Effects of tree arrangement on wind and thermal environments at pedestrian level <i>Miki Homma (Tohoku University, Japan)</i>
11:45 ~ 12:00	007 Verification of vehicle canopy model in the thermal environment of urban street canyon <i>Qiong Li (South China University of Technology, China)</i>
12:00 ~ 13:00	Group Photo & Lunch
	Transdisciplinary Session II Session chair: Y. Yamamoto (TPU) (Main building, 6 th floor, Main conference room)
13:00 ~ 13:15	008 Flow characteristics of turbulent boundary layer over aligned and staggered roughness <i>HeeChang Lim (Pusan National University, Korea)</i>
13:15 ~ 13:30	009 Large eddy simulation of flow over horizontal non-uniform buildings under neutral stable conditions <i>Lu Wang (Harbin Institute of Technology, China)</i>
13:30 ~ 13:45	010 LES analysis of energy dissipation rate and airflow rate within urban districts <i>Yasuyuki Ishida (Tohoku University, Japan)</i>
13:45 ~ 14:00	011 Unsteady RANS simulation and large-eddy simulation around an isolated building: The effects of separation shear layer on the instantaneous concentration dispersion field <i>Xinyi Li (Tokyo Institute of Technology, Japan)</i>
14:00 ~ 14:15	012 Numerical simulation of non-isothermal flow and dispersion fields: An LES study with artificially generated inflow turbulence <i>Tsubasa Okaze (Tokyo Institute of Technology, Japan)</i>
14:15 ~ 14:30	013 Wind loads and aerodynamic mechanisms on flat-roof-mounted solar arrays under normal winds by LES <i>Jingxue Wang (Beijing Jiaotong University, China)</i>
14:30 ~ 14:50	Coffee Break

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	General Session I (SWE) Chair: Pirooz (UA), Chen (RUB) (Main building, 1 st floor, Room 011)	General Session II (EWE) Chair: Tang (SCUT), Wang (HIT) (Main building, 1 st floor, Room 012)
14:50 ~ 15:05	014 Impact of tornado vortex induced aerodynamic loads on structural projections in low rise buildings <i>Rajesh Goyal (National Institute of Construction Management and Research, India)</i>	019 Study on cross-ventilation performance of residences in the Passive Town Kurobe Model based on measurements and CFD <i>Yuju Homma (Tokyo University of Science, Japan)</i>
15:05 ~ 15:20	054 Randomness in the effective load distributions <i>Bofan Chen (Ruhr-University Bochum, Germany)</i>	020 Study on ventilation performance in Passive Town Kurobe Model Third City Block based on actual measurement <i>Minori Shibata (Tokyo University of Science, Japan)</i>
15:20 ~ 15:35	026 Characteristics of net force coefficients of noise barriers with various leading edges <i>Wonsul Kim (Korea Infrastructure Safety Cooperation, Korea)</i>	021 Influence factors analysis of unorganized ventilation caused by piston effect in subway station <i>Yue Zhang (Tsinghua University, China)</i>
15:35 ~ 15:50	017 Research on behavior and damage of tropical cyclone and severe local storms around the Bay of Bengal - Case study of Bangladesh and Myanmar - <i>Taiichi Hayashi (Kyoto University, Japan)</i>	022 Study about the ventilation flow late increase technique by the wind catcher -Influence to transformation coefficient by shape change- <i>Touya Hiramoto (Kanto Gakuin University, Japan)</i>
15:50 ~ 16:05	018 Peak wind pressure acting on high-rise buildings with step on wall surface <i>Akihito Yoshida (Tokyo Polytechnic University, Japan)</i>	023 About the acquisition of the wall surface neighborhood wind velocity by PIV <i>Kazuki Chiba (Kanto Gakuin University, Japan)</i>
16:05 ~ 16:15	Coffee break	
	General Session III (SWE) Chair: Chen (RUB), Pirooz (UA) (Main building, 1 st floor, Room 011)	General Session IV (EWE) Chair: Wang (HIT), Tang (SCUT) (Main building, 1 st floor, Room 012)
16:15 ~ 16:30	024 Design wind speeds and long-term wind speed trends in New Zealand <i>Amir Ali Pirooz (University of Auckland, New Zealand)</i>	029 Investigation of indoor thermal environment in homes and health status of elderly people in Guangzhou, China <i>Peijie Tang (South China University of Technology, China)</i>
16:30 ~ 16:45	025 Measurement unit for structural response utilizing MEMS sensor <i>Yoshihiro Nitta (Ashikaga University, Japan)</i>	030 Prediction methods for thermal sensation and comfort (part 1) Subject experiments to develop local thermal sensation predicting model under transient conditions <i>Yoshito Takahashi (Waseda University, Japan)</i>
16:45 ~ 17:00	027 Maximum peak wind force coefficients for signboards installed on rooftop of buildings <i>Yuka Masuyama (Wind Engineering Institute, Japan)</i>	031 Prediction methods for thermal sensation and comfort (part 2) Development of local thermal sensation predicting model under transient conditions <i>Akihisa Nomoto (Waseda University, Japan)</i>
17:00 ~ 17:15	028 Tornado-induced wind load on structures <i>Shuyang Cao (Tongji University, China)</i>	032 Study on the effect of the fluctuation of wind on thermal comfort and pleasant sensation <i>Yusaku Nishimuro (National Institute of Technology, Toyota College, Japan)</i>
17:15 ~ 17:30		033 Differences of thermal sensation and comfort sensation in air velocity fluctuation patterns in a hot and humid environment <i>Daiki Murase (Niigata University, Japan)</i>
17:50 ~ 20:00	Dinner (Student restaurant, Atsugi campus, Tokyo Polytechnic University)	

International Workshop on Wind Effects on Buildings and Urban Environment

March 12 (Tuesday), 2019

	Keynote Session II (Main building, 6 th floor, Main conference room)		Session chair: Y. Xuan (TPU)
09:00 ~ 09:50	034 Heat dome and urban warming <i>Yuguo Li (Hong Kong University, Hong Kong)</i>		
09:50 ~ 10:00	Coffee Break		
	Transdisciplinary Session III (Main building, 6 th floor, Main conference room)		Session chair: W. Zhang (BUT)
10:00 ~ 10:15	035 Comparison of heat balance mechanism in urban space inside Sendai city, Japan, between 2000s and 2050s <i>Miguel Yamamoto (Tohoku University, Japan)</i>		
10:15 ~ 10:30	036 Development and validation of a new urban canopy model for the dynamical prediction of wind and thermal environment in severe cold regions <i>Jing Liu (Harbin Institute of Technology, China)</i>		
10:30 ~ 10:45	037 The vertical distribution characteristics of PM2.5 and PM10 mass at a high-rise building of Shanghai <i>Tingting Hu (Tongji University, China)</i>		
10:45 ~ 11:00	038 Overview of damage in Florida after the passage of hurricane Michael <i>Jean-Paul Pinelli (Florida Institute of Technology, USA)</i>		
11:00 ~ 11:15	039 Damage to light frame structures from the 2018 hurricanes in the U.S. <i>Vijaya Gopu (Louisiana Transportation Research Center, USA)</i>		
11:15 ~ 11:30	040 Evaluation of wind hazard over Peninsular Malaysia using geospatial modeling <i>Noram Irwan Bin Ramli (University Malaysia Pahang, Malaysia)</i>		
11:30 ~ 12:30	Lunch		
	General Session V (SWE) Chair: Li (TU), Sarkar (ISU) (Main building, 1 st floor, Room 011)	General Session VI (EWE) Chair: Mizutani (TPU), Xuan (TPU) (Main building, 1 st floor, Room 012)	
12:30 ~ 12:45	041 Evaluating aerodynamic characteristics and wind response of a twin building using POD <i>Tim K.T. Tse (Hong Kong University of Science and Technology, Hong Kong)</i>	045 Studies on the effect of hot urban summer environmental measures on the human body <i>Shu Yoda (Waseda University, Japan)</i>	
12:45 ~ 13:00	042 Effects of surface roughness on the local pressure of high-rise building <i>Yi Hui (Chongqing University, China)</i>	046 Study on sensible heat and latent heat loss characteristics and thermal comfort of each human body part <i>Shun Ito (Tokyo Polytechnic University, Japan)</i>	
13:00 ~ 13:15	043 Wind interference effect between tall buildings for changing plan ratios <i>Siddharth Behera (CSIR-Central Building Research Institute Roorkee, India)</i>	047 Comparisons of the body's temperature regulating system under different climatic conditions <i>Waihong Suen (Tokyo Polytechnic University, Japan)</i>	
13:15 ~ 13:30	044 Wind loading effects on tubular wind turbine tower considering overall and local wind-induced behaviors <i>Zhibin Ding (Sichuan University, China)</i>	048 Experimental investigation on moisture buffering value of hygroscopic MPCM under different air-flow conditions <i>Huibo Zhang (Shanghai Jiao Tong University, China)</i>	
13:30 ~ 13:45	016 Wind loads on ground-mounted solar arrays exposed to tornado like vortices <i>Jinxin Cao (Tongji University, China)</i>	049 Measurement of flow and dispersion around the downwind slope of a trapezoidal embankment <i>Bao-Shi Shiau (National Taiwan Ocean University, Taiwan)</i>	
13:45 ~ 13:55	Coffee break		



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March 12 (Tuesday), 2019

	General Session VII (SWE) Chair: Tse (HKUST), Ding (SU) (Main building, 1 st floor, Room 011)	General Session VIII (SWE) Chair: Yoshida (TPU), Liu (TPU) (Main building, 1 st floor, Room 012)
13:55 ~ 14:10	050 Study on peak wind force coefficients for cladding of screen standing on rooftop <i>Hiromu Honda (Tokyu construction, Japan)</i>	015 Wind loads on a streamlined bridge deck exposed to translating tornado-like vortices <i>Shaolan Ren (Tongji University, China)</i>
14:10 ~ 14:25	051 Aeroelastic model tests of a tall building to study vibration response in ABL and tornado wind <i>Partha Sarkar (Iowa State University, USA)</i>	055 Study of Strouhal number of bridge cables in turbulent flows <i>Arsenii Trush (Czech Technical University, Czech)</i>
14:25 ~ 14:40	052 Dynamic analysis of coupled wind-train-bridge system considering tower shielding and triangular wind barriers <i>Zhang Nan (Beijing Jiaotong University, China)</i>	056 Effective static wind load estimation for clips between purlins and metal panels in standing seam roofing system <i>Y. Q. Li (Tongji University, China)</i>
14:40 ~ 14:55	053 Aeroelastic analysis of box girder bridge deck structure under the turbulence and smooth flow <i>Matza Gusto Andika (National Laboratory for Aerodynamic, Aeroelastic, and Aeroacoustic Technology, Indonesia)</i>	057 Aerodynamic characteristics of solar wing system <i>Yong Chul Kim (Tokyo Polytechnic University, Japan)</i>
15:00 ~ 15:10	Closing Address (Main building, 1 st floor, Room 011)	

