

# International Workshop on Base for Introducing Talents of Civil Engineering Discipline

—International Workshop on High-performance Wind Energy System and  
Effective Operation of Wind Farms (HPWES) and Mitigating Wind-induced  
Disaster of Wind-sensitive Infrastructure (MWDWSI)

October 18-19, 2018, Chongqing, China

## Hosted by:

Base for Introducing Talents of Discipline to University on High-performance  
Wind Energy System and Effective Operation (Chongqing University)  
Base for Introducing Talents of Discipline to University on Wind-sensitive  
Infrastructure and Wind-induced Disaster Mitigation (Beijing Jiaotong University)  
School of Civil Engineering, Chongqing University

## Organized by:

*Journal of Building Structure*

## Supported by:

Department of Science, Education, Culture and Health Experts,  
State Bureau of Foreign Experts Affairs



## 会议期间注意事项

## Notices for the workshop

### 【住宿】

请所有代表于 10 月 17 日 10:00~20:00 或 18 日早 8:00 前到重庆世纪金源大饭店（重庆市江北区建新北路二支路 1 号，酒店前台电话 023-67958888）一层大厅报到。退房时间为退房当日的下午 14:00 前，请各位代表合理安排自己的行程。

### 【Accommodation】

Please register in the Chongqing Empark Grand Hotel lobby from 10:00-20:00 on Oct. 17 or before 8:00 a.m. on Oct. 18. Checking out is no later than 14:00 p.m. per day. The Chongqing Empark Grand Hotel locates at No.1, 2nd Branch, Jianxin North Road, Jiangbei District, Chongqing. Service phone number is +8623-67958888.

### 【代表证和餐券】

代表证是入会场的唯一凭证，请务必随身佩带，内有餐券，凭券就餐，遗失不补，请妥善保管。

### 【Representative card and buffet ticket】

The representative card and buffet tickets are included in the same card set, which will be distributed during registration. Please take the representative card along with you for entering the meeting room and dining hall.

### 【发票】

已汇款注册代表，请在 18、19 日 10:00~16:00 到会务组处领取发票；现场缴费代表，缴费时先开具收据，发票将于会后 15 个工作日快递给您，开具收据时请务必提供准确的发票信息和联系电话，需要增值税专用发票的请提前备好相关信息。另外，为了方便沟通交流，建议带上本人名片。

### 【Invoice】

Pre-registered delegates can receive the invoices with the bank receipt from the registration desk from 10:00-16:00 on Oct.18 and 19. For those delegates who register onsite will receive a receipt first, and the invoice will be sent to you in 15 workdays. Please provide the title of the invoice and contact information when you pay on site. For better communication, it is kindly suggested to bring the name card.

■ 因涉及版权问题，除非报告专家和学者主动授权，组委会不提供报告专家和学者 PPT 文件。若需要相关资料，请与会代表自行联系报告人。报告专家和学者主动授权的资料将会通过《建筑结构》官方微信发布（微信号：BuildingStructure）。

Due to the copyright protection, the symposium slides, video material and contact information of delegates will not be distributed. If you need any material, please contact the reporter. The slides that reporter agrees to share will be published on the formal WeChat of Journal of *Building Structure* (WeChat account: BuildingStructure).

■ 参会代表外出时注意安全，如需帮助请及时与会务组联系。

Please pay attention to your safety when you go out. If you have any problem, please contact conference staffs.

## 会务组联系方式

## Contact information of conference staff

吴 琼: 13810273081 (会议报到), 赵 翹: 18516861038 (会议住宿)

彭留留: 15928853319 (会场报告), 李 娜: 15801601545 (会议咨询)

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Bowen Yan: +86 15683789537 (Conference consultation)

## 会议及住宿地点

## Location for the conference and accommodation

重庆世纪金源大饭店（重庆市江北区建新北路二支路1号）。住宿费：450元/间/天（含早餐）。在会议现场报到完成后，请将住宿费直接交付宾馆，费用自理。

Chongqing Empark Grand Hotel (No.1, 2nd Branch, Jianxin North Road, Jiangbei District, Chongqing. Accommodation fee: 450 RMB / day/ per room (breakfast included). The accommodation fee will be paid by yourself when you check in.



注：建筑结构官方微信（ID：BuildingStructure）现有超过 300000 名粉丝，每天推送 3~4 条专业资讯。  
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## Introduction

To advance the process of promoting Chinese colleges and universities to be world-class, “plan of innovation and intelligence-importing for some disciplines of Chinese colleges and universities (Plan 111)” has been jointly organized by Ministry of Education and State Administration of Foreign Experts Affairs since 2006. The plan will establish some disciplines frontiers with strong innovation ability, and upgrade the scientific renewal and peers competition of Chinese universities. Based on the annual academic meeting of Base for Introducing Talents of Discipline to University on High-performance Wind Energy System and Effective Operation (HPWES) and Base for Introducing Talents of Discipline to University on Wind-sensitive Infrastructure and Wind-induced disaster mitigation (MWDWSI), International workshop on Base for Introducing Talents of Civil Engineering Discipline invites the domestic and foreign high-level experts to exchange the latest academic progresses. The theme of this forum involves characteristics of extreme winds, bluff body aerodynamics, Computational Fluid Dynamics (CFD), wind-resistant design of large-scale structures such as long-span structures and high-rise buildings, conditional assessment and health monitoring for wind sensitive structures, wind resources assessment and wind power forecast, new high-performance structure of wind turbine, and disaster-resistant performance of large-scale wind power facilities under extreme conditions. Researchers and students in universities and research centers and educational institutes, relevant engineers and governors are all very welcome to join the forum.

## Overview

Venue: Chongqing Empark Grand Hotel

| Wednesday, Oct.17, 2018 |                       |   |
|-------------------------|-----------------------|---|
| 10:00-20:00             | Registration          | Lobby                                       |
| 18:00-19:30             | Dinner(buffet)        | Cafeteria, 1 <sup>st</sup> LG Floor         |
| Thursday, Oct.18, 2018  |                       |   |
| 8:30-11:50              | Keynote presentations | Grand banquet hall 2, 3 <sup>rd</sup> Floor |
| 11:50-13:30             | Lunch(buffet)         | Cafeteria, 1 <sup>st</sup> LG Floor         |
| 14:00-17:35             | Keynote presentations | Grand banquet hall 2, 3 <sup>rd</sup> Floor |
| 17:35-19:00             | Dinner(buffet)        | Cafeteria, 1 <sup>st</sup> LG Floor         |
| Friday, Oct.19, 2018    |                       |   |
| 8:30-12:05              | Keynote presentations | Grand banquet hall 2, 3 <sup>rd</sup> Floor |
| 12:05-13:30             | Lunch(buffet)         | Cafeteria, 1 <sup>st</sup> LG Floor         |
| 14:00-17:35             | Keynote presentations | Grand banquet hall 2, 3 <sup>rd</sup> Floor |
| 17:35-19:00             | Dinner(buffet)        | Cafeteria, 1 <sup>st</sup> LG Floor         |

## Opening and Keynotes

| October 18, 2018             |  |                                  |  |
|------------------------------|--|----------------------------------|--|
| Time                         | Speaker                                      | Affiliation                      | Presentation   |
| Chair: Qingshan Yang         |  |                                  |  |
| 08:30-09:00                  | Opening Ceremony                             |                                  |  |
| 09:00-09:25                  | Theodore Stathopoulos                        | Concordia University             | Urban wind energy  |
| 09:25-09:50                  | Kishor Mehta                                 | Texas Tech University            | Technical challenges in wind farm  |
| 09:50-10:10                  | Group Photo(Hotel main entrance) + Tea Break |                                  |  |
| Chair: Theodore Stathopoulos |  |                                  |  |
| 10:10-10:35                  | Yukio Tamura                                 | Chongqing University             | Aerodynamic and response characteristics of super-tall buildings with various configurations |
| 10:35-11:00                  | Ahsan Kareem                                 | University of Notre Dame         | Model-based and data-driven stochastic simulation of wind effects                            |
| 11:00-11:25                  | Jijian Lian                                  | Tianjin University               | New Foundation structure, installation technology and equipment for offshore wind turbine    |
| 11:25-11:50                  | Youlin Xu                                    | Hong Kong Polytechnic University | Optimal variable pitch for high-solidity straight-bladed vertical wind turbines              |
| Lunch Break                  |  |                                  |  |
| Chair: Ahsan Kareem          |  |                                  |  |
| 14:00-14:25                  | Giovanni Solari                              | University of Genova             | Dynamic response of structures to thunderstorm outflows                                      |
| 14:25-14:50                  | Richard George James Flay                    | The University of Auckland       | Advanced wind turbine research at the University of Auckland                                 |
| 14:50-15:15                  | Zhongdong Duan                               | Harbin Institute of Technology   | Typhoon wind hazard under climate change   |
| 15:15-15:40                  | Kenny C S Kwok                               | The University of Sydney         | High-performance wind energy system for buildings in an urban environment                    |
| 15:40-15:55                  | Tea Break                                    |                                  |  |
| Chair: Yukio Tamura          |  |                                  |  |
| 15:55-16:20                  | Siu-Seong Law                                | Hong Kong Polytechnic University | Identification of nonlinear wind-induced aerodynamic forces on a SDOF system                 |
| 16:20-16:45                  | Nan Zhang                                    | Beijing Jiaotong University      | Aerodynamic behavior and derailment simulation of high-speed vehicle                         |
| 16:45-17:10                  | Yong Chul, Kim                               | Tokyo Polytechnic University     | Wind-induced vibrations of solar wing system under various wind environments                 |
| 17:10-17:35                  | Xinzhong Chen                                | Texas Tech University            | Wind load effects of tall buildings: Inelastic response and base isolation                   |

## Keynotes

| October 19, 2018                 |                           |  |  |
|----------------------------------|---------------------------|--|--|
| Time                             | Speaker                   | Affiliation                                | Lecture Theme  |
| Chair: Charalampos Baniotopoulos |                           |  |  |
| 08:30-08:55                      | Billie F. Spencer, Jr.    | University of Illinois at Urbana-Champaign | Topology optimization for stochastically excited structures  |
| 08:55-09:20                      | Qingshan Yang             | Chongqing University                       | Main contents of the wind load standard of roof structures   |
| 09:20-09:45                      | Soon-Duck Kwon            | Chonbuk National University                | Blockage corrections for wind tunnel tests of vertical axis wind turbines  |
| 09:45-10:10                      | Dai Zhou                  | Shanghai Jiaotong University               | Offshore wind turbine and floating vertical axis wind turbine structural system  |
| 10:10-10:25                      | Tea Break                 |  |  |
| Chair: Giovanni Solari           |                           |  |  |
| 10:25-10:50                      | Kincho H. Law             | Stanford University                        | Optimization of wind farm layout for maximizing wind farm power production   |
| 10:50-11:15                      | Yoshida Akihito           | Tokyo Polytechnic University               | Wind resistance performance and wind-induced damage of inflatable amusement products   |
| 11:15-11:40                      | Guoqing Huang             | Chongqing University                       | Non-stationary winds and wind load effects   |
| 11:40-12:05                      | Qiusheng Li               | City University of Hong Kong               | Observations of wind characteristics and wind effects on super-tall buildings during super typhoon Mangkhut                      |
| Lunch Break                      |                           |  |  |
| Chair: Billie F. Spencer, Jr.    |                           |  |  |
| 14:00-14:25                      | Charalampos Baniotopoulos | University of Birmingham                   | On the assessment of high performance wind turbine towers by means of sustainability criteria                                    |
| 14:25-14:50                      | Xinqun Zhu                | University of Technology Sydney            | Condition assessment of heritage timber buildings in operational environments  |
| 14:50-15:15                      | Na Yang                   | Beijing Jiaotong University                | Experimental investigation for the fatigue performance and damage estimation of screw-fastened light-gauge-steel sheets          |
| 15:15-15:40                      | Horia Hangan              | University of Western Ontario              | New experiments for wind energy applications   |
| 15:40-15:55                      | Tea Break                 |  |  |
| Chair: Qingshan Yang             |                           |  |  |
| 15:55-16:20                      | Giuseppe Piccardo         | University of Genova                       | Energy production and structural behaviour of small size wind turbines in urban environment                                      |
| 16:20-16:45                      | Feng Xu                   | Beijing Jiaotong University                | Transition to chaos of natural convection in a valley  |
| 16:45-17:10                      | Yingli Xuan               | Tokyo Polytechnic University               | Verification of nonphysical attenuation of artificially generated inflow turbulence based on Lattice Boltzmann Method with a LES |
| 17:10-17:35                      | Jakob Mann                | Technical University of Denmark            | Lidars for research and control of wind turbines   |

## Minutes of the meeting



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