

# **CURRICULUM VITAE**

## **PERSONAL DETAILS**

NAME: Qiusheng Li [B.Sc, M.Sc, PhD, FHKISC, MHKIE, MASCE]  
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DATE OF BIRTH: 19 October 1962  
NATIONALITY: Hong Kong SAR, China

## **PRESENT ACADEMIC & ADMINISTRATIVE POSITIONS**

Chair Professor of Civil Engineering, Director of the Architecture and Civil Engineering Research Centre, Director of Wind Tunnel Laboratory, City University of Hong Kong.

## **EDUCATION**

1980.09-1984.07: Shanghai Jiao-Tong University, China, Obtained B.Sc (Eng),  
1984.09-1987.07: Harbin Institute of Technology, China, Obtained M.Sc (Eng),  
1993.01-1996.10: Monash University, Australia, Obtained Doctor of Philosophy with the best PhD Thesis Award.

## **MAJOR PROFESSIONAL EXPERIENCE**

1987.08-1989.07: Lecturer, Harbin Institute of Technology.  
1989.08-1990.08: Research Engineer, Kajima Inst. of Construction Tech., Kajima Corp., Japan.  
1990.09-1992.12: Research Fellow, Department of Mechanical Engineering, Monash University, Australia.  
1993.01-1996.09: Consulting Engineer, MEL Consultants Pty. Ltd., Australia.  
1996.10- present: Assistant Professor, Associate Professor, Professor, Chair Professor, Dept. of Architecture and Civil Engineering, City University of Hong Kong.

## **OUTSTANDING AWARDS**

- (1) **Receipt of the 2020 Robert H. Scanlan Medal from American Society of Civil Engineers for cumulative distinguished contributions in engineering mechanics**, in recognition of “*outstanding contributions to wind engineering and structural mechanics from fundamental research to engineering applications*”.
- (2) **Receipt of the 2016 Jack E. Cermak Medal from American Society of Civil Engineers for cumulative distinguished contributions in wind engineering**, in recognition of “*many contributions to wind engineering that range from fundamental to applied research*” and especially “*contributions to structural dynamics studies on major building developments in Asia and the Pacific region*”.

- (3) Receipt of Lotus Outstanding Achievement Award from the Bureau of Education of Hunan Province of China, 2015.
- (4) Receipt of the First-Class Award of the Scientific and Technological Progress from the Ministry of China, 2010. Awarded Project Title: Wind Effects on Super-Tall Buildings: Field Monitoring, Wind Tunnel Testing and Numerical Simulation.
- (5) Receipt of the National Natural Science Foundation of China's Outstanding Oversea Young Scientist Award, 2004. Awarded Project Title: Structural Health Monitoring.
- (6) Receipt of the Second-Class Award of the Natural Science from the Ministry of Education of China, 2004. Awarded Project Title: Wind Resistant Design of High-Rise Structures.
- (7) The Professor K.H. Hunt Medal Winner in 1997 for Excellence in Research. Awarded Project Title: Turbulence Effects on Bluff Body Aerodynamics.
- (8) Receipt of the Second-Class Award of the Natural Science from the Ministry of Education of China, 1992. Awarded Project Title: Structural Reliability Theory and Its Application.

### **HONOURS**

- (1) National Expert Professor Appointed by the Ministry of Human Resources of China, 2013.
- (2) Chang Jiang (Cheung Kong) Chair Professor Appointed by the Ministry of Education of China and Li Ka Shing Foundation, Hong Kong, 2007.
- (3) Lotus Chair Professor Appointed by the Bureau of Education of Hunan Province of China, 2011.

### **COLLABORATION WITH EUROPEAN INSTITUTIONS**

Prof. Li has long-term research collaboration with various European institutions, such as the **Energy and Environmental Institute – University of Hull** on wind energy development, **Department of Engineering Science – University of Oxford** on structural mechanics, **Department of Civil Engineering – University of Birmingham** on boundary layer wind characteristics, and **Department of Civil, Chemical and Environmental Engineering – University of Genoa** in Italy on thunderstorm effects on structures. Based on the sustained collaboration works, a number of papers were jointly published in international journals.

### **EDITORIAL SERVICES TO INTERNATIONAL JOURNALS**

#### **1. Associate Editor of:**

- 1) *Journal of Structural Engineering, American Society of Civil Engineer (ASCE)*
- 2) *Recent Advances on Mechanical Engineering*

#### **2. Journal Editorial Board Member of:**

- 1) *The structural design of tall and special buildings*, 2) *Atmosphere*, 3) *Structural Engineering and Mechanics, An International Journal*, 4) *International Journal of Steel Structures*, 5) *Coupled System Mechanics*, 6) *Structural Monitoring and Maintenance (SMM)*, 7) *American*

*Research Journal of Civil and Structural Engineering*, 8) *Aerospace Engineering, An International Journal*, 9) *Journal of Natural Disasters*, 10) *Advances in Wind Engineering*, 11) *International Journal of Architectural Engineering Technology*

### **REPRESENTATIVE RESEARCH GRANTS FUNDED**

As PC/PI/co-PI, Prof. Li has successfully secured **over 60 grants with a total amount of over HK\$60 million (EUR7.5 million)**. Some representative projects are listed in the following sections.

#### **Research grants from Research Grant Council (RGC) of Hong Kong**

As PI/co-PI, Prof. Li has secured 20 grants from RGC with a total amount of over **HK\$25 million**. Representative projects include:

- 1) PI: “Enhancing energy harvesting and typhoon resilience of offshore wind turbines in the Guangdong-Hong Kong-Macau Greater Bay Area under climate change” (RGC Research Impact Fund (RIF), Grant Amount: **HK\$9,600,000**, Duration: 2024-2029).
- 2) Co-PI: “INTACT: Intelligent Tropical-storm-resilient System for Coastal Cities” (RGC Theme-based Research Scheme (TRS), Grant Amount: HK\$48,293,000 (Prof. Li’s share: **HK\$3,187,000**), Duration: 2024-2028).
- 3) Co-PI: “Advancing compound hazard resilience and adaptation for urban building community in a changing climate” (RGC Collaborative Research Fund (CRF), Grant Amount: HK\$4,430,285, Duration: 2026-2028).
- 4) Co-PI: “Towards future climate-resilient sea-crossing bridges via intelligent learning of long-term real monitoring data” (RGC Collaborative Research Fund (CRF), Grant Amount: HK\$5,056,919 (Prof. Li’s share: HK\$800,000), Duration: 2024-2027).
- 5) PI: Projection of design wind speeds in the southeastern coastal regions of China under climate change using a physics-driven tropical cyclone model (RGC General Research Fund (GRF), Project No: 9043670, Grant Amount: HK\$1,134,931, Duration: 2025-2027)
- 6) PI: Observation and modelling of atmospheric boundary layer wind and turbulence structures of hazardous windstorms (RGC General Research Fund (GRF), Grant Amount: HK\$1,132,781, Duration: 2024-2026)
- 7) PI: Nonstationary stochastic tropical cyclone model for regional wind hazard assessment under global warming (GRF, Grant Amount: HK\$1,177,952, Duration: 2023-2025)
- 8) PI: Investigation of offshore wind characteristics, wind energy resources and typhoon design loads of wind turbines in Hong Kong considering climate change impacts (RGC General Research Fund (GRF), Grant Amount: HK\$873,995, Duration: 2021-2023)
- 9) PI: Investigation of tropical cyclone wind characteristics and the effects of extreme winds on super-tall buildings (RGC General Research Fund (GRF), , Grant Amount: HK\$534,500, Duration: 2019-2022)
- 10) PI: Wind loading, structural health monitoring and vibration control of super-tall Buildings (RGC General Research Fund (GRF), , Grant Amount: HK\$482,605, Duration: 2016-2019)
- 11) PI: “Investigations of boundary layer wind characteristics in typhoons for structural design and wind engineering application” (RGC General Research Fund (GRF), Grant Amount: HK\$645,500, Duration: 2014-2018)

- 12) PI: “Wind effects on the tallest building in Hong Kong: field monitoring, wind tunnel testing and numerical modeling” (RGC General Research Fund (GRF), Grant Amount: HK\$880,000, Duration: 2010-2012)
- 13) PI: “Field measurements of wind effects on a moveable instrumented building during typhoon landfalls” (RGC General Research Fund (GRF), Grant Amount: HK\$328,800, Duration: 2009-2010)
- 14) PI: “Wind effects on the World’s tall building” (RGC General Research Fund (GRF), Grant Amount: HK\$879,032, Duration: 2007-2009)
- 15) PI: “Integrated monitoring system for simultaneous field measurement of typhoon effects on five super tall buildings” (Competitive Earmarked Research Grant, Grant Amount: \$857,825, Duration: 2005-2007)
- 16) PI: “Wind loading and response of the World longest spatial lattice structure: field monitoring, comparison of model and field results, and numerical modelling” (Competitive Earmarked Research Grant, Grant Amount: \$950,967, Duration: 2004-2006)
- 17) PI: “Field measurements of wind effects on tall buildings and correlation with numerical modelling” (Competitive Earmarked Research Grant, Grant Amount: \$526,404, Duration: 2002-2004)
- 18) PI: “Full scale measurements of wind effects on three high-rise structures and comparison with wind tunnel test results” (Competitive Earmarked Research Grant, Project No: 9040521 (CityU 1131/00E), Grant Amount: \$661,998, Duration: 2000-2002)
- 19) PI: “Estimating dynamic characteristics of and wind effects on tall buildings from full scale measurements” (Competitive Earmarked Research Grant, Project No: 9040448 (CityU 1143/99E), Grant Amount: \$696,300, Duration: 1999-2001)
- 20) PI: “Field measurements of wind effects on the Central Plaza Tower, Hong Kong”(Competitive Earmarked Research Grant, Project No: 9040350 (CityU 1054/98E), Grant Amount: \$460,900, Duration: 1998-2000)

#### **Grants from National Natural Science Foundation of China (NSFC)**

As PI, Prof. Li has secured 8 grants from NSFC with a total amount of over **RMB 6 million (HK\$6.4 million)**. Representative projects include:

- 1) PI: “Analysis and comparative study on boundary layer wind characteristics of typhoon, thunderstorm wind and tornado” (NSFC General Grant, Grant Amount: RMB 540,000, Duration: 2023-2026)
- 2) PI: “Investigation of offshore wind field characteristics, wind energy resource and typhoon-resistant design of wind turbines in South China coastal waters” (NSFC General Grant, Grant Amount: RMB 620,000, Duration: 2020-2023)
- 3) PI: “Comprehensive research on structural health monitoring, wind-induced response and vibration control of skyscrapers” (NSFC General Grant, Grant Amount: RMB 590,000, Duration: 2018-2021)
- 4) PI: “Comprehensive investigation of typhoon-induced wind loads on low-rise buildings by field measurement, wind tunnel test and numerical simulation” (NSFC General Grant, Grant Amount: RMB 850,000, Duration: 2015-2018)
- 5) PI: “Integrated study of wind effects on super-tall buildings by field measurement, wind tunnel testing and numerical simulation” (NSFC Key Grant, Grant Amount: RMB 1,300,000, Duration: 2013-2016)

- 6) PI: “Comprehensive investigation of boundary layer wind fields by field measurement, wind tunnel testing and numerical simulation” (NSFC General Grant, Project No: 51278439, Grant Amount: RMB 800,000, Duration: 2013-2016)
- 7) PI: “Comprehensive investigation of wind effects on high-rise buildings” (NSFC General Grant, Project No: 51178179, Amount: RMB 620,000, Duration: 2012-2015)
- 8) PI: “Structural health monitoring” (National Natural Science Foundation of China’s Outstanding Oversea Scientist Award, Grant Amount: RMB 400,000, Duration: 2005-2007)

#### **External Research Grants from Governments**

As PI, Prof. Li has secured external research grants from governments with a total amount of over **RMB 11 million (HK\$11.7 million)**. Representative projects include:

- 1) PI: “Key technologies of offshore wind turbines.” (Fundamental Research Program of Shenzhen Municipality, Grant Amount: **RMB 2,000,000**, Duration: 2023-2026).
- 2) PI: “Modelling the effects of noise barriers and moving vehicles on traffic-induced air pollution dispersion in urban areas of Hong Kong” (Environmental Conservation Fund (ECF) of Hong Kong, Grant Amount: HK\$817,600, Project No: 9211349 (ECF 2022-74), Duration: 2023-2026).
- 3) PI: “Spatiotemporal analysis and future projection of offshore wind energy potential in Shenzhen-Hong Kong-Macau coastal waters considering global warming effects.” (Shenzhen-Hong Kong-Macau Science and Technology Project, Grant Amount: **RMB 1,000,000**, Duration: 2021-2023).
- 4) PI: “Research on nonlinear dynamics of time morphing wing in drone.” (Fundamental Research Program of Shenzhen Municipality, Grant Amount: **RMB 3,000,000**, 2018-2020).
- 5) PI: “Research on the vibratory ocean energy harvesting devices based on piezoelectric effect”. (Fundamental Research Program of Shenzhen Municipality, Grant Amount: **RMB 1,000,000**, Duration: 2018-2020).
- 6) PI: “Nonlinear dynamics of blade-disc coupled structures for vibration suppression of engines of airplanes” (Fundamental Research Program of Shenzhen Municipality, Grant Amount: **RMB 3,000,000**, Duration: 2017-2019).

#### **Contracted and Consultancy Projects from Industry**

As PI, Prof. Li has conducted contracted and consultancy projects from industry with a total amount of over **HK\$20 million**. Representative projects include:

- 1) PI: “Construction and structural health monitoring for Ping An Financial Centre” (Committed by PING AN LTD, Project Amount: **RMB 7,200,000**, Duration: 2013-2019).
- 2) PI: “Design, installation and maintenance of wind and movement monitoring system for Two International Financial Centre, Hong Kong” (Committed by Sun Hung Kai Properties and MTR, Project Amount: **HK\$4,500,000**, Duration: 2007-2024).
- 3) PI: “Development of a structural health monitoring system for Guangzhou West Tower (103-storey building)” (Committed by Guangzhou Yuexiu City Construction International Finance Centre Co., Ltd, Project Amount: RMB 2,960,000, Duration: 2008-2015).
- 4) PI: “The site wind availability study through wind tunnel test for housing sites in Yuen Long South” (Contract Research Project from OVE ARUP AND PARTNERS HONG KONG LTD, Project Amount: HK\$880,000, Duration: 2013-2016).

- 5) PI: “Relocation of Sha Tin sewage treatment works to cavern” (Contract Research Project from Drainage Services Department of Honk Kong SAR Government, Project Amount: HK\$860,000, Duration: 2012-2015).

## PUBLICATIONS

Prof. Qiu Sheng Li’s research output consists of **over 500 peer-reviewed international journal publications, 5 authored and edited books, and 15 granted patents**. The number of citations exceeds **14,500 (Scopus) and 13,000 (Google Scholar)**, and the H-index reaches **64 (Scopus) and 51 (Google Scholar)**. Prof. Li is one of the most cited researchers in Civil Engineering according to Shanghai Ranking’s Global Ranking of Academic Subjects by Elsevier and Stanford University Worldwide Survey. According to the latest World Author Ranking, in terms of citations and influences of his publications, **Prof. Li was ranked 10th globally in the field of civil engineering**. Selected publications are listed below (\*corresponding author):

- 1) **Li, Q. S.\***, Zhi, L. H., Tuan, A. Y., Kao, C. S., Su, S. C., & Wu, C. F. (2011). Dynamic behavior of Taipei 101 tower: Field measurement and numerical analysis. *Journal of Structural Engineering*, 137, 143-155. (Google Scholar Citations: 223; Scopus Citations: 167)
- 2) **Li, Q. S.\***, Xiao, Y. Q., Fu, J. Y., & Li, Z. N. (2007). Full-scale measurements of wind effects on the Jin Mao building. *Journal of Wind Engineering and Industrial Aerodynamics*, 95, 445-466. (Google Scholar Citations: 165; Scopus Citations: 131)
- 3) **Li, Q. S.\***, Xiao, Y. Q., Wong, C. K., & Jeary, A. P. (2004). Field measurements of typhoon effects on a super tall building. *Engineering Structures*, 26, 233-244. (Google Scholar Citations: 164; Scopus Citations: 130)
- 4) **Li, Q. S.\***, Wu, J. R., Liang, S. G., Xiao, Y. Q., & Wong, C. K. (2004). Full-scale measurements and numerical evaluation of wind-induced vibration of a 63-story reinforced concrete tall building. *Engineering Structures*, 26, 1779-1794. (Google Scholar Citations: 137; Scopus Citations: 113)
- 5) **Li, Q. S.\***, Xiao, Y. Q., & Wong, C. K. (2005). Full-scale monitoring of typhoon effects on super tall buildings. *Journal of Fluids and Structures*, 20, 697-717. (Google Scholar Citations: 130; Scopus Citations: 109)
- 6) **Li, Q. S.\***, Shu, Z. R., & Chen, F. B. (2016). Performance assessment of tall building-integrated wind turbines for power generation. *Applied Energy*, 165, 777-788. (Google Scholar Citations: 130; Scopus Citations: 102)
- 7) Huang, S. H., **Li, Q. S.\***, & Xu, S. (2007). Numerical evaluation of wind effects on a tall steel building by CFD. *Journal of Constructional Steel Research*, 63, 612-627. (Google Scholar Citations: 378; Scopus Citations: 247)
- 8) Huang, S. H., **Li, Q. S.\***, & Wu, J. R. (2010). A general inflow turbulence generator for large eddy simulation. *Journal of Wind Engineering and Industrial Aerodynamics*, 98, 600-617. (Google Scholar Citations: 293; Scopus Citations: 232)
- 9) Shu, Z. R., **Li, Q. S.\***, & Chan, P. W. (2015). Statistical analysis of wind characteristics and wind energy potential in Hong Kong. *Energy Conversion and Management*, 101, 644-657. (Google Scholar Citations: 220; Scopus Citations: 166)
- 10) Wu, J. R., & **Li, Q. S.\*** (2004). Finite element model updating for a high-rise structure based on ambient vibration measurements. *Engineering Structures*, 26, 979-990. (Google Scholar Citations: 174; Scopus Citations: 122)

