

Wei Zhang, Ph.D., P.E.

Assistant Professor

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Assistant Professor, Dept. of CEE, University of Connecticut, Storrs, CT 2013 – Present
Senior Specialist, Technip USA Inc., Houston, TX 2012 - 2013

PROFESSIONAL PREPARATION

Louisiana State University, Baton Rouge Civil Engineering, Ph.D., 2012

SELECTED PUBLICATIONS***Book and Book Chapters***

1. Cai, C. S., **Zhang, W.**, and Montens, S. (2013). "Wind Effects on Long-Span Bridges." Bridge Engineering Handbook 2nd Edition, W.-F. Chen and L. Duan, eds., CRC Press/Taylor & Francis.
2. **Zhang, W.**, Cai, C. S. (2012). "Fatigue Performance and Life-Cycle Prediction of Existing Bridges: Dynamic Effects from Combined Random Loads of Winds and Vehicles". LAP LAMBERT Academic Publishing (May 31, 2012)

Refereed Journal Articles

1. Zhu, J., **Zhang, W.** (2017) "Numerical Simulation of Wind and Wave Fields for Coastal Slender Bridges." *Journal of Bridge Engineering*, (22)3, 04016125, 10.1061/(ASCE)BE.1943-5592.0001002.
2. **Zhang, W.**, Mengxue Wu, and Zhu, J. (2017). "Evaluation of Vehicular Dynamic Effects for the Life Cycle Design of Short-Span Bridges." *Steel Construction* 1/2017, Feb. 2017.
3. Liu, H.J, **Zhang, W.**, Yuan, H. (2016). "Structural Stability Analysis of Single-Layer Reticulated Shells with Stochastic Imperfections." *Engineering Structures*, 124, 473-479.
4. Liu, H.J, **Zhang, W.**, Yuan, H., Zhu, J., and Zheng, J. (2016). "Modified Double-Control Form-Finding Analysis for Suspendomes Considering the Construction Process and the Friction of Cable-Strut Joints." *Engineering Structures*, 120, 75-81.
5. Zhu, J., **Zhang, W.**, Zheng, K.F., and Li, H.G. (2016). "Seismic Design of a Long Span Cable-Stayed Bridge with Fluid Viscous Dampers." *ASCE Practice Periodical on Structural Design and Construction*, 10.1061/(ASCE)SC.1943-5576.0000262, 04015006.
6. X.F. Yin, Y. Liu, Guo, S.H., **Zhang, W.**, Cai, C. S. (2016). "Three-dimensional vibrations of a suspension bridge under stochastic traffic flows and road roughness." *International Journal of Structural Stability and Dynamics*, Vol. 16(2016) 1550038. DOI: 10.1142/S0219455415500388.
7. **Zhang, W.**, Zhu, J., Liu, H.J., Niu, H.W. (2015) "Probabilistic Capacity Assessment of Lattice Transmission Towers under Strong Wind". *Frontiers in Built Environment*, 1:20. doi: 10.3389/fbuil.2015.00020.
8. **Zhang, W.**, Ge, Y.J., Cai, C. S. (2015). "Application of Snapshot POD Analysis in Extracting Flow Structures around Bridge Decks." *Advances in Structural Engineering*, 18(6), 803-815.
9. Zhu, J., **Zhang, W.** (2015). "Coupled Analysis of Multi-impact Energy Harvesting from Low-Frequency Wind Induced Vibrations." *Smart Materials and Structures*, 24, 045007.
10. Cai, C. S., Hu, J.X., Chen, S.R., **Zhang, W.**, and Kong, X. (2015). "A coupled wind-vehicle-bridge system and its applications." *Wind and Structures*, 20(2), 117-142.
11. **Zhang, W.**, Cai, C. S., Pan, F., Zhang, Y. (2014). "Fatigue Life Estimation of Existing Bridges under Vehicle and Non-Stationary Hurricane Wind." *Journal of Wind Engineering and Industrial*

Aerodynamics, 133(10), pp. 135-145.

12. **Zhang, W.**, Yuan, H. (2014). "Corrosion Fatigue Effects on Life Estimation of Deteriorated Bridges under Vehicle Impacts". *Engineering Structures*, 71(7), 128-136.
13. Pan, F., Cai, C. S., **Zhang, W.**, Kong, B. (2014). "Refined finite element modeling and damage predictions of low-rise building envelopes under hurricane loads". *Wind and Structures*, 18(6), 669-691.
14. Zhang, Y., Cai, C. S., **Zhang, W.** (2014) "Experimental study of a multi-impact energy harvester under low frequency excitation." *Smart Materials and Structures*, 23, 055002. May 2014.
15. **Zhang, W.**, Cai, C. S., Pan, F. (2013) "Nonlinear fatigue damage assessment of existing bridges considering progressively deteriorated road conditions." *Engineering Structures*, 56(11), 1922-1932.
16. **Zhang, W.**, Cai, C. S., Pan, F. (2013) "Finite Element Modeling of Bridges with Equivalent Orthotropic Material Method for Multi-Scale Dynamic Loads." *Engineering Structures*, 54(9), 82-93.
17. Cai, C. S., **Zhang, W.**, Liu, X., Peng, W., Chen, S.R., Han, Y., Hu, J. (2013). "Framework of Wind-vehicle-bridge Interaction Analysis and Its Applications." *Journal of Earthquake and Tsunami* 7(3).
18. **Zhang, W.**, Cai, C. S., Pan, F. (2013). "Fatigue Reliability Assessment for Long-span Bridges under Combined Dynamic Loads from Winds and Vehicles." *ASCE Journal of Bridge Engineering*, 18(8), 735-747.
19. **Zhang, W.**, Cai, C. S. (2013). "Reliability Based Dynamic Amplification Factor on Stress Ranges for Fatigue Design of Existing Bridges." *Journal of Bridge Engineering*, 18(6), 538-552.

HONORS AND AWARDS

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| 2017 | 2016 ASCE Outstanding Reviewer Award for
ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, ASCE |
| 2017 | Congratulation letter from Provost for excelling in teaching |
| 2015 | Congratulation letter from Provost for excelling in teaching |
| 2014 | 2013 ASCE Outstanding Reviewer Award for Journal of Bridge Engineering, ASCE |
| 2013 | Travel Award for 12th Americas Conference on Wind Engineering |

SYNERGISTIC ACTIVITIES

Editorial Boards

Associate Editor, *ASCE Journal of Bridge Engineering*

Associate Editor, *Frontiers in Built Environment*

Member, Editorial Board of *Engineering Applications of Computational Fluid Mechanics*

Professional Committee Service

Fatigue and Fracture Committee, ASCE/SEI

Experimental Analysis and Instrumentation Committee, ASCE/EMI

Memberships in Professional Societies

American Society of Civil Engineers (ASCE)

American Association for Wind Engineering (AAWE)

American Institute of Aeronautics and Astronautics (AIAA)

American Institute of Steel Construction (AISC)