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职 称: 讲师

职 务: 无

研究方向: 结构健康监测、信号处理、风机识别

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个人简介

徐康乾，山东临沂人。长期致力于结构健康监测方向研究，主要围绕识别算法开发与程序实现，有限元软件建模与数值分析技术，以及新能源结构的智能运维与性能评估等方面开展工作。主持山东省自然科学基金 1 项，在结构健康监测的 TOP 期刊《Engineering Structures》、《Mechanical Systems and Signal Processing》、《Journal of Building Engineering》、《Structural Control and Health Monitoring》等发表多篇 SCI 论文。

学习经历

- 2012.09-2016.08, 大连理工大学, 土木工程专业, 工学学士
- 2016.09-2019.02, 同济大学, 土木工程专业, 工学硕士
- 2019.04-2022.03, 日本庆应大学, 土木工程专业, 工学博士

工作经历

2022.07-至今, 青岛理工大学土木工程学院, 讲师

教科研项目

- 2025.10-2028.09, 山东省自然科学基金青年项目, 主持

学术成果

代表性著作、论文:

- [1] Kangqian Xu, Miao Cao, Songtao Xue, Rui Zhang, Xianzhi Li, Zhuoran Yi, Liyu Xie. A novel single-

- input single-output system described by transformation function for damage quantification of soft story. *Engineering Structures*, 2025, 343: 121056.
- [2] **Kangqian Xu**, Miao Cao, Songtao Xue, Dawei Li, Xianzhi Li, Zhuoran Yi. Single accelerometer-based inter-story drift reconstruction of soft-story for shear structures with innovative transformation function, *Mechanical Systems and Signal Processing*, 2025, 222: 111800
- [3] **Kangqian Xu**, Miao Cao, Songtao Xue, Xianzhi Li, Jigang Zhang, Zhuoran Yi, Liyu Xie. Transformation function-based modal identification of superstructure of base-isolated buildings using responses of isolation layer, *Journal of Building Engineering*, 2025, 100: 111791.
- [4] **Kangqian Xu**, Akira Mita. Maximum drift estimation based on only one accelerometer for damaged shear structures with unknown parameters, *Journal of Building Engineering*, 2022, 46: 103372
- [5] **Kangqian Xu**, Akira Mita. Estimation of maximum drift of multi - degree - of - freedom shear structures with unknown parameters using only one accelerometer, *Structural Control and Health Monitoring*, 2021, 28(9): e2799
- [6] Jinshan Huang, Ying Lei, Xiongjun Yang, Xianzhi Li, **Kangqian Xu**(通讯作者), Feng Wang, Xinghua Chen. Robust identification of distributed dynamic loads acting on multi-degree-of-freedom structures based on sparse measurement, *Mechanical Systems and Signal Processing*, 2025, 228: 112417.
- [7] **Kangqian Xu**, Akira Mita, Dawei Li, Songtao Xue, Xianzhi Li. A Constrained minimization-based scheme against susceptibility of drift angle identification to parameters estimation error from measurements of one floor, *Smart Structures and Systems*, 2024, 33(2): 119-131.
- [8] **Kangqian Xu**, Akira Mita. Absolute displacement-based formulation for peak inter-story drift identification of shear structures using only one accelerometer, *Sensors*, 2021, 21(11): 3629
- [9] Songtao Xue, **Kangqian Xu**, Liyu Xie, Guochun Wan. Crack sensor based on patch antenna fed by capacitive microstrip lines. *Smart Materials and Structures*. 2019, 28(8): 085012.
- [10] Chunfeng Wan, Liyu Xie, **Xu Kangqian**, Songtao Xue, Can Jiang, Guochun Wan, Tao Ding. Transverse deformation effect on sensitivity of strain-sensing patch antenna. *International Journal of Distributed Sensor Networks*. 2020, 16(3): 1550147720908192.
- [11] Dawei Li, Chuchu Niu, **Kangqian Xu**, Jianping Han. Feasibility of eddy current damping-based tuned mass damper inerter for a nonlinear hybrid base-isolated building[J]. *Journal of Building Engineering*,

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- [12] Zhuoran Yi, Zihan Xia, Xianzhi Li, **Kangqian Xu**, Liyu Xie, Songtao Xue, Yiyu Wu. Passive Inclination Sensor Based on a Patch Antenna with a Reconfigurable Water Load[J]. Sensors, 2024, 24(20): 6744.
- [13] **Kangqian Xu**, Akira Mita. Estimation of maximum drift of MDOF shear structures using only one accelerometer, 8th Asia-Pacific Workshop on Structural Health Monitoring, Australia, 2020.
- [14] **Kangqian Xu**, Liyu Xie, Songtao Xue, Guochun Wan. Influence of transverse deformation on resonant frequency of patch antenna. 2018 IEEE Sensors Applications Symposium (SAS). 2018.
- [15] 班鑫磊, 廖望, **徐康乾**(通讯作者). 地震响应下海上升压站平台模态参数识别. 船舶工程. 2024,46(S1):35-40.
- [16] 班鑫磊, 武晓东, **徐康乾**(通讯作者). 基于简易传感系统的海上升压站结构参数识别. 船舶工程. 2025,47(05):139-145.
- [17] 班鑫磊, **徐康乾**(通讯作者). 风、浪、流荷载作用下海上升压站结构损伤识别方法研究. 船海工程. 2026,55(01):30-37.
- [18] 薛松涛, **徐康乾**, 谢丽宇, 薛科, 万国春. 无源无线应变传感器的模拟与测试. 结构工程师. 2020, 35(5).
- [19] **徐康乾**, 谢丽宇, 薛松涛, 蒋灿, 万国春, 张建国. 大应变下贴片天线应变传感器的性能研究. 结构工程师. 2019, 35(1).