Zi-Han WANG

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Google Scholar: https://scholar.google.com/citations?user=_rH7NooAAAAJ

Educations

Tsinghua University, P. R. China 2019/09 - Today
Ph.D. candidate in Data Science and Information technology
Advisor: Dr. Wenbo Ding
Research Topics: Triboelectric Nanogenerators, Soft Electronics, Soft Robots, HMI & HRI

University of California, Berkeley, USA 2023/03 - Today
Visiting Research Student
Advisor: Prof. Liwei Lin
Research Topics: Self-Healing Materials for Sensing and Energy Harvesting

Herriot-Watt University, UK 2015/08 - 2019/06
B.Eng., Telecommunications Engineering with **First Class Honors**
Advisor: Prof. Mustafa Suphi Erden

Xidian University, P. R. China 2015/08 - 2019/06
B.Eng., Telecommunications Engineering with **Outstanding Graduates**

Boston University, USA 2018/07 - 2018/08
Visiting Student

Selected Awards & Honors

ICRA 2023 RAS Travel Grant 2023/04
University Scholarship of the First Class (Tsinghua University) 2022/11
National Scholarship for Graduates (The Ministry of Education) 2021/12
Deputy Principal's Award (Herriot-Watt University) 2019/06

Academic Service

Teaching Assistant of TBSI Course Nanogenerator & Self-powered System 2020/09 - Today
Web Chair of ACM Ubicomp 2021 CPD Workshop 2021/05 - 2021/09
Journal Reviewer of *DSP, EUSIPCO, ICN,* and *Nano Energy*

Invited Talks and Conference Presentations

Smart wearable systems for smart life at X-institute, Shenzhen 2023/01/13
STEV: Stretchable Triboelectric E-skin enabled Proprioceptive Vibration Sensing for Soft Robot at University of California, Berkeley 2023/03/04
Triboelectric-nanogenerator-enabled mechanical modulation for infrared wireless communications at BINN CAS, Virtual 2022/07/08

Selected Publication

[1] Zihan Wang*, Kai-Chong Lei*, Huaze Tang, Shoujie Li, Yuan Dai, Wenbo Ding#, Xiao-Ping Zhang. "STEV: Stretchable Triboelectric E-skin enabled Proprioceptive Vibration Sensing for Soft Robot," IEEE International Conference on Robotics and Automation (ICRA), 2023.

[2] Han Wu*, **Zihan Wang***, Boyu Zhu, Hanqing Wang, Chengyue Lu, Meicun Kang, Shenglin Kang, Wenbo Ding#, Lijun Yang, Ruijin Liao, Jiyu Wang#, Zhong Lin Wang# "All-in-One Sensing System for Online Vibration Monitoring via IR Wireless Communication as Driven by High-Power TENG," *Advanced Energy Materials*, 2023, 2300051.

[3] Jiangfeng Lu*, Zicong Miao*, **Zihan Wang***, Ying Liu, Dekuan Zhu, Jihong Yin, Fei Tang, Xiaohao Wang, Wenbo Ding#, Min Zhang#, "Piezoelectric soft robot driven by mechanical energy," *Nano Research*, 2022.

[4] **Zihan Wang***, Yuchao Jin*, Chengyue Lu*, Jiyu Wang#, Ziwu Song, Xu Yang, Yidan Cao, Yunlong Zi, Wenbo Ding#, Zhong Lin Wang#, "Triboelectric Nanogenerator enabled Mechanical Modulation for Infrared Wireless Communications," *Energy & Environmental Science,* 2022, 15 (7): 2983-2991.

[5] Ziwu Song*, Jihong Yin*, **Zihan Wang***, Chengyue Lu, Ze Yang, Zihao Zhao, Zenan Lin, Jiyu Wang#, Changsheng Wu, Jia Cheng, Yuan Dai, Yunlong Zi, Shao-Lun Huang, Xinlei Chen, Jian Song, Gang Li, Wenbo Ding#, "A flexible triboelectric tactile sensor for simultaneous material and texture recognition," *Nano Energy*, 2022, 93: 106798.

[6] Yang Luo*, **Zihan Wang***, Jiyu Wang, Xiao Xiao, Qian Li, Wenbo Ding#, Hongyan Fu#, "Triboelectric bending sensor based smart glove towards intuitive multi-dimensional human-machine interfaces," *Nano Energy*, 2021, 89: 106330. **(FRONT COVER)**

[7] **Zihan Wang**, Jiarong Li, Yuchao Jin, Jiyu Wang, Fang Yang, Gang Li, Xiaoyue Ni, Wenbo Ding#, "Sensing beyond itself: Multi-functional use of ubiquitous signals towards wearable applications," *Digital Signal Processing*, 2021: 103091.

Skills

✓	English Certificate	IELTS (Academic) Band 7
✓	Programming language & Tools	C, HTML, Python, LaTeX, MATLAB, LabVIEW, MS Office
✓	Technical Skills	Machine Learning, Signal Processing, Embedded System, Design and Fabrication of Flexible/Stretchable Circuit, Design and Characterization of Triboelectric Nanogenerator, Design and Fabrication of Soft Robotic System.