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## Biography

I'm an Assistant Professor at the Department of Computer Science at City University of Hong Kong. Before that, I worked as a Postdoctoral Research Associate at the School of Computer Science and Engineering (CSE) at UNSW Australia from June 2017 to August 2019. I obtained my PhD degree from the University of Queensland in 2017 (advised by Prof. Neil Bergmann and Dr. Wen Hu). I received my B.E. degree in Communication Engineering and M.E. degree in Communication and Information System (advised by Prof. Dongfeng Yuan) both from the School of Information Science and Engineering, Shandong University (SDU), China, in 2010 and 2013, respectively.

## Employment

### Department of Computer Science

City University of Hong Kong

16 Aug 2019 → present

## Research outputs

### Exploiting Contactless Side Channels in Wireless Charging Power Banks for User Privacy Inference via Few-shot Learning

Ni, T., Li, J., Zhang, X., Zuo, C., Wang, W., Xu, W., Luo, X., & 1 others Zhao, Q., Oct 2023, *ACM MobiCom '23: Proceedings of the 29th Annual International Conference on Mobile Computing and Networking*. Association for Computing Machinery, p. 1105-1119 15 p. 73

### XPorter: A Study of the Multi-Port Charger Security on Privacy Leakage and Voice Injection

Ni, T., Chen, Y., Xu, W., Xue, L. & Zhao, Q., Oct 2023, (Online published) *ACM MobiCom '23: Proceedings of the 29th Annual International Conference on Mobile Computing and Networking*. Association for Computing Machinery, 15 p.

### Eavesdropping Mobile App Activity via Radio-Frequency Energy Harvesting

Ni, T., Lan, G., Wang, J., Zhao, Q. & Xu, W., Aug 2023, *Proceedings of the 32nd USENIX Security Symposium*. USENIX Association, p. 3511-3528 18 p.

### Occlusion-Resistant instance segmentation of piglets in farrowing pens using center clustering network

Huang, E., Mao, A., Hou, J., Wu, Y., Xu, W., Ceballos, M. C., Parsons, T. D., & 1 others Liu, K., Jul 2023, In: *Computers and Electronics in Agriculture*. 210, 107950.

### 基于柔性太阳能电池和超薄水凝胶薄膜的手势识别

吴如成, 丁文伯, 徐晓敏, 宋林琦 & 徐伟涛, Jul 2023, In: *電信科學*. 39, 7

### CoBC: A Blockchain-based Collaborative Inference System for the Internet of Things

Feng, X., Li, L., Wang, T., Xu, W., Zhang, J., Wei, B. & Luo, C., 27 Jun 2023, (Online published) In: *IEEE Internet of Things Journal*. 11 p. Scopus citations: 1

### IoTSL: Towards Efficient Distributed Learning for Resource-constrained Internet of Things

Feng, X., Luo, C., Chen, J., Huang, Y., Zhang, J., Xu, W., Li, J., & 1 others Leung, V. C. M., 1 Jun 2023, In: *IEEE Internet of Things Journal*. 10, 11, p. 9892-9905 Scopus citations: 1

### 基於擾動壓縮感知的通信方法和裝置

XU, W. & YANG, H., 25 May 2023, (Accepted/In press/Filed) Priority No. 202310604945.3

**一種在線簽名認證方法、裝置、計算機設備及存儲介質**

HAN, M. & XU, W., 23 May 2023, (Accepted/In press/Filed) Priority No. 202310585269.X

**Demo Abstract: A Novel Firmware Update Over-The-Air System for LoRa Networks**

Sun, Z., Ni, T., Yang, H., Liu, K., Zhang, Y., Gu, T. & Xu, W., May 2023, *IPSN '23: Proceedings of the 22nd International Conference on Information Processing in Sensor Networks*. ACM, p. 362–363

**FLoRa: Energy-Efficient, Reliable, and Beamforming-Assisted Over-The-Air Firmware Update in LoRa Networks**

Sun, Z., Ni, T., Yang, H., Liu, K., Zhang, Y., Gu, T. & Xu, W., May 2023, *IPSN '23: Proceedings of the 22nd International Conference on Information Processing in Sensor Networks*. ACM, p. 14–26

**Emma: An accurate, efficient, and multi-modality strategy for autonomous vehicle angle prediction**

Song, K., Ni, T., Song, L. & Xu, W., Mar 2023, In: *Intelligent and Converged Networks*. 4, 1, p. 41-49 9 p.

**H2K: A Heartbeat-based Key Generation Framework for ECG and PPG Signals**

Zhang, J., Zheng, Y., Xu, W. & Chen, Y., Feb 2023, In: *IEEE Transactions on Mobile Computing*. 22, 2, p. 923-934  
Scopus citations: 4

**ChirpKey: A Chirp-level Information-based Key Generation Scheme for LoRa Networks via Perturbed Compressed Sensing**

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**EMGSense: A Low-Effort Self-Supervised Domain Adaptation Framework for EMG Sensing**

Duan, D., Yang, H., Lan, G., Li, T., Jia, X. & Xu, W., 2023, *2023 IEEE International Conference on Pervasive Computing and Communications (PerCom)*. IEEE, p. 160-170 11 p. (IEEE International Conference on Pervasive Computing and Communications (PerCom)). Scopus citations: 1

**Uncovering User Interactions on Smartphones via Contactless Wireless Charging Side Channels**

Ni, T., Zhang, X., Zuo, C., Li, J., Yan, Z., Wang, W., Xu, W., & 2 others Luo, X. & Zhao, Q., 2023, *Proceedings - 44th IEEE Symposium on Security and Privacy, SP 2023*. IEEE, p. 3399-3415 17 p. (Proceedings - IEEE Symposium on Security and Privacy).

**WashRing: An Energy-Efficient and Highly Accurate Handwashing Monitoring System Via Smart Ring**

Xu, W., Yang, H., Chen, J., Luo, C., Zhang, J., Zhao, Y. & Li, W. J., 7 Dec 2022, (Online published) In: *IEEE Transactions on Mobile Computing*.

**PrivGait: An Energy-Harvesting-Based Privacy-Preserving User-Identification System by Gait Analysis**

Xu, W., Xue, W., Lin, Q., Lan, G., Feng, X., Wei, B., Luo, C., & 2 others Li, W. & Zomaya, A. Y., 15 Nov 2022, In: *IEEE Internet of Things Journal*. 9, 22, p. 22048-22060 Scopus citations: 2

**Recent Advances in LoRa: A Comprehensive Survey**

SUN, Z., YANG, H., LIU, K., YIN, Z., LI, Z. & XU, W., Nov 2022, In: *ACM Transactions on Sensor Networks*. 18, 4, 67.  
Scopus citations: 14

**一種密鑰生成方法、裝置、計算機設備及存儲介質**

XU, W. & YANG, H., 16 Sept 2022, (Accepted/In press/Filed) Priority No. 202211126540.5

**SwipePass: Acoustic-based Second-factor User Authentication for Smartphones**

CHEN, Y., NI, T., XU, W. & GU, T., 7 Sept 2022, In: *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*. 6, 3, 106. Scopus citations: 3

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**Recent advances in biometrics-based user authentication for wearable devices: A contemporary survey**

Liu, S., Shao, W., Li, T., Xu, W. & Song, L., 15 Jun 2022, In: *Digital Signal Processing*. 125, 103120.Scopus citations: 13

**Simultaneous Energy Harvesting and Gait Recognition using Piezoelectric Energy Harvester**

Ma, D., Lan, G., Xu, W., Hassan, M. & Hu, W., Jun 2022, In: *IEEE Transactions on Mobile Computing*. 21, 6, p. 2198-2209  
Scopus citations: 9

**Time-Constrained Ensemble Sensing With Heterogeneous IoT Devices in Intelligent Transportation Systems**

Feng, X., Luo, C., Wei, B., Zhang, J., Li, J., Wang, H., Xu, W., & 2 others Chan, M. C. & Leung, V. C. M., 6 May 2022, (Online published) In: *IEEE Transactions on Intelligent Transportation Systems*. Scopus citations: 5

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**i<sup>2</sup>Key: A Cross-sensor Symmetric Key Generation System Using Inertial Measurements and Inaudible Sound**

Wei, B., Xu, W., Li, K., Luo, C. & Zhang, J., 2022, *Proceedings - 21st ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN 2022)*. IEEE, p. 183-194 (Proceedings - ACM/IEEE International Conference on Information Processing in Sensor Networks, IPSN ).

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Yang, H., Liu, H., Luo, C., Wu, Y., Li, W., Zomaya, A. Y., Song, L., & 1 others Xu, W., 2022, *Proceedings - 2022 IEEE 42nd International Conference on Distributed Computing Systems, ICDCS 2022*. IEEE, p. 787-797 (Proceedings - International Conference on Distributed Computing Systems). Scopus citations: 5

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Gao, J., Xu, W., Kanhere, S., Jha, S., Kim, J. Y., Huang, W. & Hu, W., 18 May 2021, *IPSN '21: Proceedings of the 20th International Conference on Information Processing in Sensor Networks (co-located with CPS-IoT Week 2021)*. Association for Computing Machinery, p. 47-61

**InaudibleKey: Generic Inaudible Acoustic Signal based Key Agreement Protocol for Mobile Devices**

Xu, W., Li, Z., Xue, W., Yu, X., Wei, B., Wang, J., Luo, C., & 2 others Li, W. & Zomaya, A. Y., 18 May 2021, *IPSN' 21: Proceedings of the 20th International Conference on Information Processing in Sensor Networks*. ACM, p. 106-118

**Key Generation for Internet of Things: A Contemporary Survey**

XU, W., ZHANG, J., HUANG, S., LUO, C. & LI, W., Apr 2021, In: *ACM Computing Surveys*. 54, 1, 14. Scopus citations: 15

**A Simple and Fast Human Activity Recognition System Using Radio Frequency Energy Harvesting**

Ni, T., Chen, Y., Song, K. & Xu, W., 2021, *UbiComp/ISWC '21 Adjunct - Proceedings of the 2021 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2021 ACM International Symposium on Wearable Computers*. New York: Association for Computing Machinery, Inc, p. 666-671 (UbiComp/ISWC - Adjunct Proceedings of the ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the ACM International Symposium on Wearable Computers). Scopus citations: 1

**CPD 2021: The 4th International Workshop on Combining Physical and Data-Driven Knowledge in Ubiquitous Computing**

Ding, W., Wu, C. & Xu, W., 2021, *UbiComp/ISWC '21 Adjunct: Proceedings of the 2021 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2021 ACM International Symposium on Wearable Computers*. New York: Association for Computing Machinery, p. 586-588 (UbiComp/ISWC - Adjunct Proceedings of the ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the ACM International Symposium on Wearable Computers). Scopus citations: 1

**EMIoT: A LoRa-enabled Smart Building Solution Based on Emergency Lights**

Xu, W., Kim, J. Y., Huang, W., Kanhere, S., Jha, S. & Hu, W., 18 Nov 2020, *BuildSys' 20 : Proceedings of the 7th ACM International Conference on Systems for Energy-Efficient Buildings, Cities, and Transportation*. Association for Computing Machinery, p. 330-331 (BuildSys - Proceedings of the ACM International Conference on Systems for Energy-Efficient Buildings, Cities, and Transportation). Scopus citations: 3

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Xu, W., Li, Z., Xue, W., Yu, X., Wang, J., Luo, C., Li, W., & 1 others Zomaya, A. Y., Nov 2020, *SenSys '20: Proceedings of the 2020 The 18th ACM Conference on Embedded Networked Sensor Systems*. Association for Computing Machinery, p. 689-690 (SenSys - Proceedings of the ACM Conference on Embedded Networked Sensor Systems). Scopus citations: 1

**Gait-Watch: A Gait-based context-aware authentication system for smart watch via sparse coding**

Xu, W., Shen, Y., Luo, C., Li, J., Li, W. & Zomaya, A. Y., 1 Oct 2020, In: *Ad Hoc Networks*. 107, 102218. Scopus citations: 14

**SolarSLAM: Battery-free loop closure for indoor localisation**

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**Nephalai: Towards LPWAN C-RAN with Physical Layer Compression**

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**EnTrans: Leveraging Kinetic Energy Harvesting Signal for Transportation Mode Detection**

Lan, G., Xu, W., Ma, D., Khalifa, S., Hassan, M. & Hu, W., Jul 2020, In: *IEEE Transactions on Intelligent Transportation Systems*. 21, 7, p. 2816-2827 12 p., 8730510. Scopus citations: 17

**A multi-view CNN-based acoustic classification system for automatic animal species identification**

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Gao, J., Xu, W., Kanhere, S., Jha, S. & Hu, W., Apr 2020, *Proceedings - 2020 19th ACM/IEEE International Conference on Information Processing in Sensor Networks, IPSN 2020*. IEEE, p. 327-328 (ACM/IEEE International Conference on Information Processing in Sensor Networks). Scopus citations: 1

**Securing Cyber-Physical Social Interactions on Wrist-Worn Devices**

SHEN, Y., DU, B., XU, W., LUO, C., WEI, B., CUI, L. & WEN, H., Apr 2020, In: ACM Transactions on Sensor Networks. 16, 2, 19.Scopus citations: 7

**KEHKey: Kinetic Energy Harvester-based Authentication and Key Generation for Body Area Network**

LIN, Q., XU, W., LAN, G., CUI, Y., JIA, H., HU, W., HASSAN, M., & 1 othersSENEVIRATNE, A., Mar 2020, In: Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies. 4, 1, 26 p., 41.Scopus citations: 12

**Capacitor-based Activity Sensing for Kinetic-powered Wearable IoTs**

LAN, G., MA, D., XU, W., HASSAN, M. & HU, W., Feb 2020, In: ACM Transactions on Internet of Things. 1, 1, 26 p., 2. Scopus citations: 15

**Gait Recognition as a Service for Unobtrusive User Identification in Smart Spaces**

LUO, C., WU, J., LI, J., WANG, J., XU, W., MING, Z., WEI, B., & 2 othersLI, W. & ZOMAYA, A. Y., Feb 2020, In: ACM Transactions on Internet of Things. 1, 1, 21 p., 5.Scopus citations: 11

**Measurement, Characterization, and Modeling of LoRa Technology in Multifloor Buildings**

Xu, W., Kim, J. Y., Huang, W., Kanhere, S. S., Jha, S. K. & Hu, W., 1 Jan 2020, In: IEEE Internet of Things Journal. 7, 1, p. 298-310 8865092.Scopus citations: 68

**WiEnhance: Towards Data Augmentation in Human Activity Recognition using WiFi signal**

Zhang, J., Wu, F., Hu, W., Zhang, Q., Xu, W. & Cheng, J., Dec 2019, *Proceedings - 2019 15th International Conference on Mobile Ad-Hoc and Sensor Networks, MSN 2019*. Institute of Electrical and Electronics Engineers Inc., p. 309-314 9066101. (Proceedings - 2019 15th International Conference on Mobile Ad-Hoc and Sensor Networks, MSN 2019). Scopus citations: 11

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SEHS: Simultaneous Energy Harvesting and Sensing using Piezoelectric Energy Harvester

Ma, D., Lan, G., Xu, W., Hassan, M. & Hu, W., Apr 2018, *PROCEEDINGS - ACM/IEEE International Conference on Internet of Things Design and Implementation, IoTDI 2018*. Institute of Electrical and Electronics Engineers Inc., p. 201-212 12 p. (Proceedings - ACM/IEEE International Conference on Internet of Things Design and Implementation, IoTDI). Scopus citations: 13

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VEH-COM: Demodulating Vibration Energy Harvesting for Short Range Communication  
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Xu, W., Lan, G., Lin, Q., Khalifa, S., Bergmann, N., Hassan, M. & Hu, W., Feb 2017, *Proceedings of the 2017 Network and Distributed System Security Symposium*. Reston, VA: Internet Society

Sensor-assisted Face Recognition System on Smart Glass via Multi-view Sparse Representation Classification  
Xu, W., Shen, Y., Bergmann, N. & Hu, W., Apr 2016, *2016 15th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN) - Proceedings*. Institute of Electrical and Electronics Engineers Inc., 7460721. (ACM/IEEE International Conference on Information Processing in Sensor Networks, IPSN - Proceedings).Scopus citations: 19

Walkie-Talkie: Motion-Assisted Automatic Key Generation for Secure On-Body Device Communication  
Xu, W., Revadigar, G., Luo, C., Bergmann, N. & Hu, W., Apr 2016, *2016 15th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN) - Proceedings*. Institute of Electrical and Electronics Engineers Inc., 7460726. (ACM/IEEE International Conference on Information Processing in Sensor Networks, IPSN - Proceedings). Scopus citations: 66

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Naviglass: Indoor localisation using smart glasses  
Zhang, Y., Hu, W., Xu, W., Wen, H. & Chou, C. T., 2016, *International Conference on Embedded Wireless Systems and Networks, EWSN 2016*. Junction Publishing, p. 205-216 (International Conference on Embedded Wireless Systems and Networks).Scopus citations: 13

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Poster abstract: An online approach for gait recognition on smart glasses

Shen, Y., Luo, C., Xu, W. & Hu, W., 1 Nov 2015, *SenSys 2015 - Proceedings of the 13th ACM Conference on Embedded Networked Sensor Systems*. ACM New York, p. 389-390 2 p. (SenSys - Proceedings of the ... ACM Conference on Embedded Networked Sensor Systems).Scopus citations: 5

Poster abstract: Robust and efficient sensor-assisted face recognition system on smart glass

Xu, W., Shen, Y., Bergmann, N. & Hu, W., Nov 2015, *SenSys 2015 - Proceedings of the 13th ACM Conference on Embedded Networked Sensor Systems*. ACM New York, p. 379-380 2 p. (SenSys - Proceedings of the ... ACM Conference on Embedded Networked Sensor Systems).Scopus citations: 2

A new information system using multimedia thin client and cloud architecture

Xu, W. & Xue, L., May 2014, *Advances in Communication Technology and Systems*. Yang, G. (ed.). Southampton, UK: WIT Press, p. 31-38 8 p. (WIT Transactions on Information and Communication Technologies; vol. 56).

Implementation of a Network Streaming Media Player Based on ARM Processor

Xu, W., Yuan, D. & Xu, J., Dec 2012, *2012 International Conference on Control Engineering and Communication Technology, ICCECT 2012: Proceedings*. IEEE, p. 719-722 6414007. (International Conference on Control Engineering and Communication Technology, ICCECT).Scopus citations: 3

## Activities

### **Workshop on Smart Wearable Systems and Applications**

Weitao XU (Member of programme committee)  
Jun 2022 → Aug 2022

### **IEEE International Conference on Parallel and Distributed Systems**

Weitao XU (Member of programme committee)  
May 2022 → Aug 2022

### **The 28th Annual International Conference On Mobile Computing And Networking**

Weitao XU (Organiser)  
Apr 2022 → Oct 2022

### **IEEE Global Communications Conference**

Weitao XU (Member of programme committee)  
Mar 2022 → May 2022

### **IEEE International Conference on Sensing, Communication, and Networking**

Weitao XU (Member of programme committee)  
Feb 2022 → May 2022

### **The 19th annual IEEE International Conference on Sensing, Communication and Networking**

Weitao XU (Member of programme committee)  
Feb 2022 → Apr 2022

### **International Conference on Embedded Wireless Systems and Networks**

Weitao XU (Member of programme committee)  
Jan 2022 → May 2022



**18th EAI International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services**

Weitao XU (Member of programme committee)

Jun 2021 → Sept 2021

**Combining Physical and Data-Driven Knowledge in Ubiquitous Computing**

Weitao XU (Chair)

Apr 2021 → Sept 2021

**VNI: Virtualization for Enabling Next-Generation IoT Networks**

Weitao XU (Member of programme committee)

Dec 2020 → Jun 2021

**Workshop on Cyber-Physical-Human System Design and Implementation**

Weitao XU (Member of programme committee)

Jun 2020 → May 2021

**The 7th ACM International Conference on Systems for Energy-Efficient Buildings, Cities, and Transportation (BuildSys2020)**

Weitao XU (Member of programme committee)

Feb 2020 → ...

**The 4th Asian Conference on Artificial Intelligence Technology (ACAIT)**

Weitao XU (Member of programme committee)

Jan 2020 → May 2020

**The IEEE International Conference on Advanced Robotics and Mechatronics (ICARM)**

Weitao XU (Member of programme committee)

Jan 2020 → Jun 2020

**Ubicomp Workshop on Combining Physical and Data-Driven Knowledge in Ubiquitous Computing**

Weitao XU (Member of programme committee)

Jan 2020 → Jul 2020

**Ad Hoc Networks (Journal)**

Weitao XU (Associate Editor)

Oct 2019 → Oct 2021

**The ACM/IEEE International Conference on Internet of Things Design and Implementation (IoTDI)**

Weitao XU (Member of programme committee)

Oct 2019 → Apr 2020

**Smart Sensing and Security System for IoT**

Weitao XU (Speaker)

May 2019

**Sensor-Assisted Smart Recognition System on Wearable Devices**

Weitao XU (Speaker)

Apr 2019

**CPS IoT week**

Weitao XU (Organiser)

Feb 2019 → Apr 2020

**EWSN**

Weitao XU (Member of programme committee)

25 Jan 2019 → 27 Jan 2019

**IEEE EWSN CoWireless Workshop**

Weitao XU (Member of programme committee)

25 Jan 2019 → 27 Jan 2019

**Exploring the Feasibility of Physical Layer Key Generation for LoRaWAN**

Weitao XU (Speaker)

Jul 2018

**Sensor-Assisted Face Recognition System on Smart Glass**

Weitao XU (Speaker)

Oct 2017

**Gait-Watch: A Context-aware Authentication System for Smart Watch Based on Gait Recognition**

Weitao XU (Speaker)

Apr 2017

**KEH-Gait: Towards a Mobile Healthcare User Authentication System by Kinetic Energy Harvesting**

Weitao XU (Speaker)

Feb 2017

**Biometric-based Recognition System on Wearable Devices**

Weitao XU (Speaker)

Nov 2016

**Sensor-assisted Face Recognition System on Smart Glass via Multi-view Sparse Representation Classification**

Weitao XU (Speaker)

Apr 2016

**Walkie-Talkie: Motion-Assisted Automatic Key Generation for Secure On-Body Device Communication**

Weitao XU (Speaker)

Apr 2016

**Managing the Web of Things: Linking the Real World to the Web (Journal)**

Weitao XU (Book Series Editor)

Jan 2016 → May 2016

**Mobile applications based on smart wearable devices**

Weitao XU (Speaker)

Nov 2015

**Prizes**

**ACM SIGBED China Rising Star Award**

XU, Weitao (Recipient), 22 Sept 2021

**Google PhD Fellowship**

XU, Weitao (Recipient), 2016

**IoTDI Best Demo Runner-up Award**

XU, Weitao (Recipient), 2018

### **IPSN Best Paper Runner-up Award**

XU, Weitao (Recipient), 2016

### **MARK WEISER BEST PAPER AWARD**

DUAN, Di (Recipient), YANG, Huanqi (Recipient), Lan, Guohao (Recipient), Li, Tianxing (Recipient), JIA, Xiaohua (Recipient) & XU, Weitao (Recipient), 17 Mar 2023

### **Percom Best Work-in-Progress Paper Award**

XU, Weitao (Recipient), 2016

### **Stanford's top 2% most highly cited scientists 2022**

XU, Weitao (Recipient), Oct 2022

## **Press/Media**

### **Aussie researchers want to use your walk to authenticate you**

Weitao XU

24/05/17

1 item of Media coverage

### **CityU researchers develop a self-supervised AI adaptation framework to enhance sensing accuracy of EMG devices**

Weitao XU

25/05/23

1 item of Media coverage

### **The era of talking buildings has arrived**

Weitao XU

10/12/18

1 item of Media coverage

### **The way we walk can be used to power and secure our devices**

Weitao XU

7/05/17

1 item of Media coverage

### **啥？走路的姿势都能用来做密码？！**

Weitao XU

25/05/17

1 item of Media coverage

### **走路的姿态也能解锁手机？科学家开发步态验证技术**

Weitao XU

25/05/17

1 item of Media coverage

## **Grants**

## **Projects**

### **SIRG: A Smart Egg Incubation Monitoring System Based on mmWave Sensing**

XU, W. & LIU, K.

1/05/22 → ...

### **GRF: Pushing the Boundaries of Wearable Sensing: A Tale of Two Modalities**

XU, W. & Ma, D.

1/01/23 → ...

**ECS: Robust and Lightweight Security Framework for Low-power Wide-area Network**

XU, W.

1/01/21 → ...

**DON\_RMG: Towards a Secure and Privacy-preserving IoT Sensing Framework for Smart City - RMGS**

XU, W.

1/03/21 → 29/03/23

**SZGov-SRI: 基于多源融合和信道特征的车联网智能决策和安全传输系统研究**

XU, W.

1/09/21 → ...

**NSFC-SRI: 基于无线信道物理层特征的低功率广域网密钥生成系统研究**

XU, W.

1/01/22 → ...

**OTHERS-SRI: 基于深度学习和主动视觉感知的智能超表面辅助通信系统设计**

XU, W.

1/01/22 → ...