Wenbo Ding

Postdoctoral Fellow, School of Materials Science and Engineering

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ADDRESS
275 PTB Building,
500 10th street N.W.,
Georgia Institute of Technology,
Atlanta, GA 30318-5794

RESEARCH AREAS

Self-powered sensors, nanogenerators, energy harvesting
Signal processing, compressive sensing, sparse Bayesian learning, deep learning
Communication theory and system implementation

EDUCATION

Tsinghua University, P. R. China 2011.8-2016.7
Ph.D., Electronic Engineering with **Excellent Graduate and Thesis Award**
Thesis: *The Research and Applications of Channel Estimation Based on Sparse Recovery*
Advisor: Prof. **Jian Song**

Tsinghua University, P. R. China 2007.8-2011.7
B.E, Electronic Engineering(ranked 12/300) with **Excellent Graduate and Thesis Award**

PROFESSIONAL EXPERIENCE

Georgia Institute of Technology, GA, USA 2016.7-present
Postdoctoral Fellow, School of Materials Science and Engineering, (*Advisor*: Prof. Z. L. Wang)

Tsinghua DTV Research Lab, Beijing, China 2011.8-2016.7
Graduate Research Assistant

University of Houston, USA 2015.12-2016.3
Visiting Scholar, Electrical and Computer Engineering (*Advisor*: Prof. Zhu Han)

Imperial College London, UK 2014.7-2014.9
Visiting Scholar, Electrical Electronic Engineering (*Advisor*: Prof. Wei Dai)

Ericsson R&D Center, Beijing, China 2010.6-2010.9
Integration & Verification Engineer (*Advisor*: Dr. Zhigen Xu)

TEACHING EXPERIENCE

Energy and Resource Recovery, Guest Lecturer, Undergraduate, Georgia Tech, 2018 Fall.
Digital TV Transmission Experiment, TA, Undergraduate, Tsinghua Univ., 2015 Fall.
Undergraduate Mentoring Program, Mentor, Undergraduate, Tsinghua Univ., 2011-2015.

HONORS & AWARDS

2019 Inventions Geneva Gold Medal
2018 1st Place Georgia Tech MSE Poster Competition (Energy/Electronic)
2016 Zijing Scholar Fellowship for Prospective Researcher, Tsinghua University
2016 Excellent Doctoral Dissertation of Tsinghua University
2016 Excellent PhD Graduate of Tsinghua University
2016 Excellent PhD Graduate of Beijing City
2015 IEEE Scott Helt Memorial Award (Best Transactions Paper Award in IEEE BTS)
2015 Tsinghua Top Graduate Student Award (Highest honor for Tsinghua graduates, 10 out of 24000)
2015 Academic Star of EE Department
2015 Best Paper Award of The National Doctoral Student Academic Conference
2014,2015 National Scholarship for Graduates (Twice, top 1%)
2015 Tsinghua Lin Feng Counsellor Prize (Highest honor for student mentor, 20 out of 1000)
2014 Excellent Top 10 Association President in Tsinghua
2014 IEEE BMSB 2014 Outstanding Volunteer Award

2011 Excellent Bachelor Degree Dissertation Award, Tsinghua University (Top 2%)
2011 Outstanding Graduate in Beijing (Top 2%)
2010,2011 Excellent Social Work Scholarship
2009 Full Scholarship for exchange students in HUT
2009 National Scholarship for Undergraduates (Top 1%)
2008 Tsinghua ESS Scholarship (Top 10%)
2008,2010 Excellent Study Scholarship
2007 Tsinghua First-class Scholarship for Freshmen (Ranked 3rd in the College Entrance Examination of Anhui Province)

TECHNICAL SKILLS

Software and algorithm development based on C, C++, Matlab, Python, Java, Labview
Hardware implementation with Verilog, VHDL, System Verilog, PCB

COMMUNITY SERVICE

Member

- MRS Member
- IEEE ComSoc, PES, BTS member
- IEEE ComSoc Technical Committee on Power Line Communications

Editor or Chair

- Workshop Chair, IEEE SmartGridComm 2019
- TPC Member, IEEE SmartGridComm 2019, IEEE CIC/ICCC 2017/2018

Reviewer
Material Science Area:

- Advanced Materials
- Nano Energy
- Nano Today
- IEEE Transactions on Nanotechnology
- Sensors
- Inventions

EE & CS Area:

- CVPR
- IEEE Transactions on Signal Processing
- IEEE Journal on Selected Areas in Communications
- IEEE Transactions on Wireless Communications
- IEEE Transactions on Communications
- IEEE Transactions on Vehicular Technology
- IEEE Transactions on Broadcasting
- IEEE Communications Letters
- IEEE Wireless Communications Letters
- IEEE Access
- IEEE Photonics Journal
- Optics Express
- Optics Communications
- Signal Processing
- Digital Signal Processing
- IET Communications
- AEU-International Journal of Electronics and Communications
- Journal of the Franklin Institute
- IEEE ICC/Globecom/GlobalSIP/BMSB/ICCC

- China Communications

Organizer or Volunteer

- IEEE ISPLC 2012
- IEEE Healthcom 2012
- IEEE BMSB 2014
- Judge for Broadening Participation in Materials Undergraduate Student Poster Competition in MRS Spring 2017.

Others

- President, Tsinghua Alumni Association of Georgia (TAAG)
- Board of Directors, Tsinghua Alumni Association of Georgia (TAAG)
- Deputy President of Student Union at Tsinghua University (1/2011-1/2012)
- President of Student Union at Electronic Engineering Department (6/2010-6/2011)
- Mentor for Undergraduates in Tsinghua University (1/2012-1/2016)

PUBLICATIONS

Journal (First Author or Co-First Author*)

1. **Wenbo Ding**, Aurelia C. Wang, Changsheng Wu, Hengyu Guo, and Zhong Lin Wang, "Human-Machine Interfacing Enabled by Triboelectric Nanogenerators and Tribotronics," Advanced Materials Technologies. (**Invited Review**)
2. Jia Cheng*, **Wenbo Ding***, Yunlong Zi, Yijia Lu, Linhong Ji, Fan Liu, Changsheng Wu, and Zhong Lin Wang, "Triboelectric microplasma powered by mechanical stimuli," accepted by **Nature Communications**.
3. **Wenbo Ding**, Changsheng Wu, Yunlong Zi, Haiyang Zou, Jiyu Wang, Jia Cheng, Aurelia C. Wang, and Zhong Lin Wang, "Self-Powered Wireless Optical Transmission of Mechanical Agitation Signals," Nano Energy, vol. 47, pp. 566-572, May 2018.
4. Kai Dong*, Jianan Deng*, **Wenbo Ding***, Aurelia C. Wang, Peihong Wang, Chaoyu Chen, Yi-Cheng Wang, Limin Jin, Bohong Gu, Baozhong Sun and Zhong Lin Wang, "Versatile CoreCSheath Yarn for Sustainable Biomechanical Energy Harvesting and Real-Time Human-Interactive Sensing," Advanced Energy Materials, vol. 8, pp. 1801114, Jun. 2018.
5. Zhiyi Wu*, **Wenbo Ding***, Yejing Dai*, Kai Dong, Changsheng Wu, Lei Zhang, Zhiming Lin, Jia Cheng, and Zhong Lin Wang, "Self-Powered Multifunctional Motion Sensor Enabled by Magnetic Regulated Triboelectric Nanogenerator," ACS Nano, vol. 12, no. 6, pp. 5726-5733, May 2018.
6. Jiyu Wang*, **Wenbo Ding***, Lun Pan*, Changsheng Wu, Hua Yu, Ruijin Liao, Lijun Yang, and Zhong Lin Wang, "Self-powered Wind Sensor System for Detecting Wind Speed and Direction Based on Triboelectric Nanogenerator," ACS Nano, vol. 12, no. 4, pp. 3954-3963, Mar. 2018.
7. Yunlong Zi*, Changsheng Wu*, **Wenbo Ding***, Xingfu Wang, Yejing Dai, Jia Cheng, Jiyu Wang, Zhengjun Wang, and Zhong Lin Wang, "Field Emission of Electrons Powered by a Triboelectric Nanogenerator," Advanced Functional Materials, vol. 28, pp. 1800610, Apr. 2018.
8. Changsheng Wu*, **Wenbo Ding***, Ruiyuan Liu*, Jiyu Wang, Aurelia C. Wang, Jie Wang, Shengming Li, Yunlong Zi, and Zhong Lin Wang, "Keystroke dynamics enabled authentication and identification using triboelectric nanogenerator array," Materials Today, vol. 21, no. 3, pp. 216-222, Apr. 2018.
9. Peihong Wang*, Ruiyuan Liu*, **Wenbo Ding***, Peng Zhang, Lun Pan, Guozhang Dai, and Zhong Lin Wang, "Complementary electromagnetic-triboelectric active sensor for detecting multiple mechanical triggering," Advanced Functional Materials, vol. 28, no. 11, pp. 1705808, Mar. 2018.
10. Hua Yu*, Xu He*, **Wenbo Ding***, Yongshan Hu, Congchen Yang, Shan Lu, Changsheng Wu, Haiyang Zou, Ruiyuan Liu, Canhui Lu, and Zhong Lin Wang, "A Self-Powered Dynamic Displacement Monitoring System based on Triboelectric Accelerometer," Advanced Energy Materials, vol. 7, no. 19, pp. 1700565, Oct. 2017.

11. **Wenbo Ding**, Yang Lu, Fang Yang, Wei Dai, Pan Li, Sicong Liu, and Jian Song, "Spectrally Efficient Channel State Information Acquisition for Power Line Communications: A Bayesian Compressive Sensing Perspective," IEEE Journal of Selected Areas on Communications, vol. 34, no. 7, pp. 2022-2032, Jul. 2016.
12. **Wenbo Ding**, Fang Yang, Sicong Liu, Xianbin Wang, and Jian Song, "Non-Orthogonal Time-Frequency Training Sequence Based CSI Acquisition for MIMO Systems," IEEE Transactions on Vehicular Technologies, vol. 65, no. 7, pp. 5714-5719, Jul. 2016.
13. **Wenbo Ding**, Fang Yang, Sicong Liu, and Jian Song, "Structured compressive sensing-based non-orthogonal time-domain training channel state information acquisition for multiple input multiple output systems," IET Communications, vol. 10, no. 6, pp. 685-690, Apr. 2016. (**ESI Highly Cited Paper**)
14. **Wenbo Ding**, Fang Yang, Sicong Liu, and Jian Song, "Approach to suppress out-of-band emission for dual pseudo noise padded time-domain synchronous-orthogonal frequency division multiplexing systems," IET Communications, vol. 9, no. 13, pp. 1606-1614, Sep. 2015.
15. Jian Song, **Wenbo Ding**, Fang Yang, Hui Yang, Bingyan Yu, and Hongming Zhang, "An Indoor Broadband Broadcasting System Based on PLC and VLC," IEEE Transactions on Broadcasting, vol.61, no. 2, pp. 299-308, Jun. 2015.
16. **Wenbo Ding**, Fang Yang, Hui Yang, Jintao Wang, Xiaofei Wang, Xun Zhang, and Jian Song, "A Hybrid Power Line and Visible Light Communication System for Indoor Hospital Applications," Computers in Industry, vol. 68, no. 4, pp. 170-178, Apr. 2015.
17. **Wenbo Ding**, Fang Yang, Wei Dai, and Jian Song, "Time-frequency joint sparse channel estimation for MIMO-OFDM systems," IEEE Communications Letters, vol. 19, no. 1, pp. 58-61, Jan. 2015. (**ESI Highly Cited Paper**)
18. **Wenbo Ding**, Fang Yang, Jian Song, and Zhisheng Niu, "Energy-efficient orthogonal frequency division multiplexing scheme based on time-frequency joint channel estimation," IET Communications, vol. 8, no. 18, pp. 3406-3413, Dec. 2014.
19. **Wenbo Ding**, Fang Yang, Changyong Pan, Linglong Dai, and Jian Song, "Compressive sensing based channel estimation for OFDM systems under long delay channels," IEEE Transactions on Broadcasting, vol. 60, no. 2, pp. 313-321, Jun. 2014. (IEEE 2015 Scott Helt Memorial Award, **Best Transactions Award**)

Journal (Others)

1. Tengjiao Wang, Jingbo Tan, **Wenbo Ding**, Yanru Zhang, Fang Yang, Jian Song, Zhu Han, "Inter-Community Detection Scheme for Social Internet of Things: A Compressive Sensing Over Graphs Approach," accepted by IEEE Internet of Things Journal.
2. Jianan Deng, Xiao Kuang, Ruiyuan Liu, **Wenbo Ding**, Aurelia C. Wang, Ying-Chih Lai, Kai Dong, Zhen Wen, Yaxian Wang, Lili Wang, H. Jerry Qi, Tong Zhang, and Zhong Lin Wang, "Vitrimer Elastomer-Based Jigsaw Puzzle-Like Healable Triboelectric Nanogenerator for Self-Powered Wearable Electronics," accepted by Advanced Materials.
3. Ruiyuan Liu, Xiao Kuang, Jianan Deng, Yi-Cheng Wang, Aurelia C. Wang, **Wenbo Ding**, Ying-Chih Lai, Jun Chen, Peihong Wang, Zhiqun Lin, H. Jerry Qi, Baoquan Sun, and Zhong Lin Wang, "Shape Memory Polymers for Body Motion Energy Harvesting and Self-Powered Mechanosensing," Advanced Materials, vol. 30, no. 8, pp. 1705195, Feb. 2018.
4. Kai Dong, Jianan Deng, Yunlong Zi, Yi-Cheng Wang, Cheng Xu, Haiyang Zou, **Wenbo Ding**, Yejing Dai, Bohong Gu, Baozhong Sun and Zhong Lin Wang, "3D Orthogonal Woven Triboelectric Nanogenerator for Effective Biomechanical Energy Harvesting and as Self-Powered Active Motion Sensors," Advanced Materials, vol. 29, no. 38, pp. 1702648, Oct. 2017.
5. Minyi Xu, Yi-Cheng Wang, Steven L. Zhang, **Wenbo Ding**, Jia Cheng, Xu He, Peng Zhang, Zhengjun Wang, Xinxiang Pan and Zhong Lin Wang, "An aeroelastic flutter based triboelectric nanogenerator as a self-powered active wind speed sensor in harsh environment," Extreme Mechanics Letters, vol. 15, pp. 122-129, Sep. 2017.
6. Xu He, Yunlong Zi, Hua Yu, Steven L. Zhang, Jie Wang, **Wenbo Ding**, Haiyang Zou, Wei Zhang, Canhui Lu and Zhong Lin Wang, "An ultrathin paper-based self-powered system for portable electronics and wireless human-machine interaction," Nano Energy, vol. 39, pp. 328-336, Sep. 2017.

7. Haiyang Zou, Xiaogan Li, Wenbo Peng, Wenzhuo Wu, Ruomeng Yu, Changsheng Wu, **Wenbo Ding**, Fei Hu, Ruiyuan Liu, Yunlong Zi and Zhong Lin Wang, "Piezo-Phototronic Effect on Selective Electron or Hole Transport through Depletion Region of VisCNIR Broadband Photodiode," Advanced Materials, vol. 29, no. 29, pp. 1701412, Aug. 2017.
8. Yunlong Zi, Changsheng Wu, **Wenbo Ding**, and Zhong Lin Wang, "Maximized Effective Energy Output of Contact-Separation-Triggered Triboelectric Nanogenerators as Limited by Air Breakdown," Advanced Functional Materials, vol. 27, no. 24, pp. 1700049, Jun. 2017.
9. Xu Ma, Fang Yang, Sicong Liu, **Wenbo Ding**, and Jian Song, "Structured Compressive Sensing Based Channel Estimation for Time Frequency Training OFDM Systems over Doubly Selective Channel," IEEE Wireless Communications Letters, vol. 6, no. 2, pp. 266-269, April 2017.
10. Sicong Liu, Fang Yang, **Wenbo Ding**, Jian Song, and Andrea M. Tonello, "Structured Compressed Sensing Based Narrowband Interference Elimination for In-Home Power Line Communications," IEEE Transactions on Consumer Electronics, vol. 63, no. 1, pp. 10-18, Feb. 2017.
11. Xu Ma, Junnan Gao, Fang Yang, **Wenbo Ding**, Hui Yang, and Jian Song, "Integrated Power Line and Visible Light Communication System Compatible with Multi-Service Transmission," IET Communications, vol. 11, no. 1, pp. 104-111, Jan. 2017.
12. Jingyi Wang, **Wenbo Ding**, Yuanxiong Guo, Chi Zhang, Miao Pan, and Jian Song, "M3-STEP: Matching Based Multi-Radio Multi-Channel Spectrum Trading with Evolving Preferences," IEEE Journal of Selected Areas on Communications, vol. 34, no. 11, pp. 3014-3024, Nov. 2016.
13. Sicong Liu, Fang Yang, **Wenbo Ding**, Xianbin Wang, and Jian Song, "Two-Dimensional Structured Compressed Sensing Based NBI Cancellation Exploiting Spatial and Temporal Correlations in MIMO Systems," IEEE Transactions on Vehicular Technologies, vol. 65, no. 11, pp. 9020-028, Nov. 2016.
14. Xu Ma, Fang Yang, **Wenbo Ding**, and Jian Song, "Novel Approach to Design Time-Domain Training Sequence for Accurate Sparse Channel Estimation," IEEE Transactions on Broadcasting, vol. 62, no. 3, pp. 512-520, Sep. 2016.
15. Sicong Liu, Fang Yang, **Wenbo Ding**, and Jian Song, "Double Kill: Compressive Sensing Based Narrowband Interference and Impulsive Noise Mitigation for Vehicular Communications," IEEE Transactions on Vehicular Technologies, vol. 65, no. 7, pp. 5099-5109, Jul. 2016.
16. Longzhuang He, Jintao Wang, **Wenbo Ding**, and Jian Song, "l_∞ Minimization Based Symbol Detection for Generalized Space Shift Keying," IEEE Communications Letters, vol. 19, no. 7, pp. 1109-1112, Jul. 2015.

Conference

1. Tengjiao Wang, Jingbo Tan, **Wenbo Ding**, Yanru Zhang, Fang Yang, Jian Song, and Zhu Han, "Compressive Sensing Over Graphs Based Inter-Community Detection Scheme in Mobile Social Networks," in Proc. IEEE ICC 2018, Kansas City, USA.
2. Sicong Liu, Fang Yang, **Wenbo Ding**, Jian Song, and Zhu Han, "Impulsive Noise Cancellation for MIMO-OFDM PLC Systems: a Structured Compressed Sensing Perspective," in Proc. IEEE Globecom 2016, Washington D.C., USA.
3. Jingyi Wang, **Wenbo Ding**, Yuanxiong Guo, Chi Zhang, Miao Pan, Jian Song, "Dynamic Matching Based Distributed Spectrum Trading in Multi-Radio Multi-Channel CRNs," in Proc. IEEE Globecom 2016, Washington D.C., USA.
4. Huaqing Zhang, **Wenbo Ding**, Jian Song, and Zhu Han, "A Hierarchical Game Approach for Visible Light Communication and Multi-Hop D2D Heterogeneous Network," in Proc. IEEE Globecom 2016, Washington D.C., USA.
5. Sicong Liu, Fang Yang, **Wenbo Ding**, and Jian Song, "NBI Cancellation for Smart Grid Communications: A Block Sparse Bayesian Learning Perspective," in Proc. IEEE ICC 2016, Kuala Lumpur, Malaysia.
6. **Wenbo Ding**, Fang Yang, Sicong Liu, and Jian Song, "Spectrally Efficient CSI Acquisition Approach For Large-Scale MIMO Systems," in Proc. IEEE Globecom 2015 Workshop, San Diego, USA.

7. Xu Ma, Fang Yang, **Wenbo Ding**, and Jian Song, "A Study of Training Sequence Design For the Time-Domain Training OFDM System," in Proc. IEEE Globecom 2015 Workshop, San Diego, USA.
8. Sicong Liu, Fang Yang, **Wenbo Ding**, and Jian Song, "Structured Compressed Sensing Based NBI Recovery from Spatial Multiple Differential Measurements for MIMO PLC Systems," in Proc. IEEE Globecom 2015 Workshop, San Diego, USA.
9. Longzhuang He, Jintao Wang, **Wenbo Ding**, and Jian Song, "Sparse Bayesian Learning Based Symbol Detection for Generalised Spatial Modulation in Large-Scale MIMO Systems," in Proc. IEEE Globecom 2015, San Diego, USA.
10. Xu Ma, **Wenbo Ding**, Fang Yang, Hui Yang, and Jian Song, "Positioning Compatible Multi-Service Transmission System Based on the Integration of VLC and PLC," in Proc. IEEE IWCMC 2015, Dubrovnik, Croatia.
11. Junnan Gao, Fang Yang, and **Wenbo Ding**, "Novel Integrated Power Line and Visible Light Communication System with Bit Division Multiplexing", in Proc. IEEE IWCMC 2015, Dubrovnik, Croatia.
12. Sicong Liu, Fang Yang, **Wenbo Ding**, and Jian Song, "A Priori Aided Compressive Sensing Approach for Impulsive Noise Reconstruction," in Proc. IEEE IWCMC 2015, Dubrovnik, Croatia.
13. Sicong Liu, Fang Yang, **Wenbo Ding**, and Jian Song, "Structured Compressive Sensing Based Narrowband Interference Mitigation for Vehicular Communications," in Proc. IEEE ICC 2015 Workshop, London.
14. Xuesi Wang, Jintao Wang, and **Wenbo Ding**, "Optimal Pilot Pattern for Sparse Channel Estimation in TFT-OFDM Systems," in Proc. IEEE BMSB 2015, Gent, Belgium.
15. Yangtian Yan, **Wenbo Ding**, Hui Yang, and Jian Song, "The video transmission platform for The PLC and VLC integrated system," in Proc. IEEE BMSB 2015, Gent, Belgium.
16. **Wenbo Ding**, Yang Lu, Fang Yang, Wei Dai, and Jian Song, "Sparse Channel State Information Acquisition for Power Line Communications," in Proc. IEEE ICC 2015, London, UK.
17. [**Invited Paper**] Xu Ma, Fang Yang, **Wenbo Ding**, and Jian Song, "Topology Reconstruction for Power Line Network Based on Bayesian Compressed Sensing," in Proc. IEEE ISPLC 2015, Austin, USA.
18. **Wenbo Ding**, Fang Yang, Chao Zhang, Linglong Dai, and Jian Song, "Simultaneous Time-Frequency Channel Estimation Based on Compressive Sensing for OFDM System," in Proc. IEEE GlobeCom 2014, Austin, USA.
19. Fang Yang, **Wenbo Ding**, Linglong Dai, and Jian Song, "Joint time-frequency channel estimation method for OFDM systems based on compressive sensing," General Assembly and Scientific Symposium (URSI GASS), 2014 XXXIth URSI, Beijing, China.
20. [**Invited Paper**] Jian Song, **Wenbo Ding**, Fang Yang, Hui Yang, Jintao Wang, Xiaofei Wang, and Xun Zhang, "Indoor hospital communication systems: a hybrid solution based on power line and visible light communication," in Proc. IEEE Faible Tension Faible Consommation 2014, Monaco.
21. **Wenbo Ding**, Fang Yang, and Jian Song, "Novel approach to shape the spectrum for TDS-OFDM systems with cancellation carriers," in Proc. IEEE BMSB 2014, Beijing, China.
22. **Wenbo Ding**, Fang Yang, Jian Song, Fei Ren, and Jia Li, "Spectrum notch techniques for TDS-OFDM system," in Proc. IEEE IWCMC 2013, Sardinia, Italy.
23. **Wenbo Ding**, Fang Yang, and Jian Song, "Out-of-band power suppression for TDS-OFDM systems," in Proc. IEEE BMSB 2013, London, UK.
24. Fang Yang, **Wenbo Ding**, and Jian Song, "Non-intrusive power line quality monitoring based on power line communications," in Proc. IEEE ISPLC 2013, Johannesburg, South Africa.
25. **Wenbo Ding**, Fang Yang, Jian Song, and Lifeng He, "Signaling-embedded preamble design for OFDM system with transmit diversity," in Proc. IEEE IWCMC 2012, Limassol, Cyprus.

26. **Wenbo Ding**, Changyong Pan, Fang Yang, and Keqian Yan, "The modeling and prediction of the receive quality under single frequency networks for DTMB system," in Proc. IEEE Wicom 2011, Wuhan, China.
27. Keqian Yan, **Wenbo Ding**, Liwei Zhang, Yanbin Yin, Fang Yang, and Changyong Pan, "Measurement and prediction of DTMB reception quality in single frequency networks," in Proc. IEEE IWCMC 2011, Istanbul, Turkey.

Patent

1. Junnan Gao, Fang Yang, **Wenbo Ding**, and Jian Song, Visible Light Communication Method and Device Fusing OOK Modulation and OFDM Modulation, PCT.

INVITED TALKS

Academic

1. Mechanical energy harvesting and sensing based on triboelectric nanogenerators, Department of Precision Instrument, Tsinghua University.
2. Mechanical energy harvesting and sensing based on triboelectric nanogenerators, Department of Electronic Engineering, Tsinghua University.
3. Mechanical energy harvesting and sensing based on triboelectric nanogenerators, University of Houston.
4. Mechanical energy harvesting and sensing based on triboelectric nanogenerators, Missouri University of Science and Technology.
5. Time-Frequency Joint Compressive Sensing in Communications, University of Houston.
6. Last Mile Access with PLC-VLC Integrated System, Thyssen Krupp Group.
7. Non-Intrusive Power Line Quality Monitoring Based on Power Line Communications, Imperial College London.

Non-academic

1. My Study Memory in Tsinghua, Graduate School at Shenzhen of Tsinghua University.
2. My Atypical Road to Top Graduate Scholarship, Tsinghua University.

REFERENCES

- *Zhong Lin Wang* *(MSE, Georgia Tech., email: zhong.wang@mse.gatech.edu)*
- *Jian Song* *(EE, Tsinghua, email: jsong@tsinghua.edu.cn)*
- *Lizhong Zheng* *(EECS, MIT, email: lizhong@mit.edu)*
- *Zhu Han* *(ECE, Houston, email: zhan2@uh.edu)*
- *Shuguang Cui* *(ECE, UC Davis, email: sgcui@ucdavis.edu)*
- *Wei Dai* *(ECE, Imperial College, email: wei.dai1@imperial.ac.uk)*
- *Jianming Liu* *(State Grid Corporation of China, email: ljming@263.net)*