

CONTACT
INFORMATION

Electrical & Computer Engineering Department
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RESEARCH
INTERESTS

- High Performance Mobile Computing System
- Mobile and IoT System Security
- Machine Learning and Neuromorphic Computing
- Graphic Computing Optimization for Virtual/Augmented Reality Technologies
- Hardware/Software Co-design for Mobile Display System (*esp.* OLED Technology)
- Sensor based Human-Computer Interaction

EDUCATION
BACKGROUND

University of Pittsburgh, Pittsburgh, PA, USA

- Degree: Ph.D. Major: Computer Engineering 2012~2016
- Degree: M.S. Major: Electrical Engineering 2010~2012
- Advisor: Prof. **Yiran Chen** (currently at Duke Univ.)

Northeastern University, Shenyang, China

- Degree: Bachelor Major: Automation 2006~2010

RESEARCH
GRANTS

- **National Science Foundation:** Xiang Chen (PI), Yiran Chen (Co-PI), "CSR: Small: Collaborative Research: EURECa: Enabling Untethered VR/AR System via Human-centric Graphic Computing and Distributed Data Processing," \$249,997. 9/1/2017~8/31/2020.
- **Innovation Works TCC University Grant:** Yiran Chen (PI), Xiang Chen (Student PI), "Invisible Shield: Device Security via Gesture Authentication," \$25,000. 9/1/14~8/31/15.
- **University of Pittsburgh Innovation Institute Pitt Ventures:** Yiran Chen (PI), Xiang Chen (Student PI), "The Invisible Shield: User Classification and Authentication for Mobile Device Based on Continuous Gesture Recognition," \$16,000. 1/1/2014~1/31/2015.
- **Intel Cornell Cup USA 2013:** Xiang Chen (Team Leader), "Koalakollar: Squad Tracking and Isolation Event Alert System," \$3,000, 1/2014~5/2014.

HONOR &
AWARDS

- **Best Paper Award**, "MoDNN: Local Distributed Mobile Computing System for Deep Neural Network," The Design Automation and Test in Europe (DATE), 2017.
- **Best Paper Nomination**, "Scope: Quality Retaining Display Rendering Workload Scaling based on User-Smartphone Distance," The International Conference on Computer-Aided Design (ICCAD), 2016.
- **Microsoft Excellence Award**, Star of Tomorrow Internship Program (1% of 5000 interns), Microsoft Research Asia, 2015.

**HONOR &
AWARDS
(CONT'D)**

- **Most Popular Poster Award**, Student Research Forum (SRC) Competition, ACM Special Interest Group on Design Automation (SIGDA), The Asia and South Pacific Design Automation Conference (ASPDAC), 2015.
- **Second Prize**, Randall Family Big Idea Start-up Competition, Pittsburgh PA, 2014.
- **Second Prize**, Student Research Forum (SRC), ACM Special Interest Group on Design Automation (SIGDA), The Design Automation Conference (DAC), 2012.

**RESEARCH
EXPERIENCES**

High Performance Mobile System for Deep Learning

- Distributed Deep Neural Network (DNN) system on mobile devices;
- Accelerated Generative Adversarial Networks (GAN) on mobile devices.

Mobile System Security and Authentication

- Fast generation and detection framework of the adversarial attack examples;
- Residual learning network for restoration of the adversarial attack examples;
- Machine learning based user finger operation based authentication on mobile devices.

Low Power Mobile Computing Systems

- Real-time power consumption analysis for mobile system and applications;
- Performance retaining real-time CPU/GPU scheduling for mobile graphic system;
- User motion based low-frequency GPS sampling and route reconstruction system for low power navigation on wearable devices.

Mobile Graphic and Display Related Technologies

- Distributed parallel rendering framework for local wireless mobile device cluster;
- Mobile OLED-friendly recording and playback system for low power video streaming;
- Dynamic tone mapping for OLED display power saving based on video classification;
- Low-power circuit design of OLED pixel for fine-grained dynamic voltage scaling;
- Sensing & compensation circuit design of OLED panel for display enhancement of non-uniformity & degradation.

Digital Circuit, CMOS VLSI and other Related Works

- Circuit modeling & performance analysis for STT-RAM crossbar circuits;
- Circuit implementation & performance analysis for classic neural synapse circuits;
- Chip tape-out of a 4K STT-RAM chip set, a joint project with SMIC and Chinese Academy of Science Physics Institute.

**WORK
EXPERIENCES**

Caritas Institute of Higher Education, Visiting Scholar. HK. Jul. 2017~Aug. 2017

- Low power mobile display system optimization.

City University of Hong Kong, Visiting Scholar. Hong Kong. Jun. 2015~Aug. 2015

- Mobile power consumption analysis for DDR RAM and GPU on Android platform.

Microsoft Research Asia, Intern. Beijing, China. Jun. 2014~Sep. 2014

- "FingerShadow" system modeling finger-gaze behavior, which has been widely reported by technique news websites;
- Human-Computer Interaction analysis, and Low-power smartphone UI design.

WORK
EXPERIENCES
(CONT'D)

Samsung Research and Development Lab, Intern. Dallas, TX. Jul. 2013~Nov. 2013

- Samsung 5G FD-MEMO station project, FPGA & DSP development.

Samsung Research and Development Lab, Intern. Dallas, TX. Sep. 2012~Dec. 2012

- “Dynamic Tone Preference” UI system, which is a low-power OLED based system UI running in Samsung Galaxy smartphone series now;
- Mobile power and user behavior analysis for Samsung Galaxy series mobile devices;
- Low-power analysis for OLED display panel dynamic voltage scaling performance.

TRAVEL
GRANT

- 2015 ICCAD, ACM Student Travel Grant
- 2015 ICCAD, Student Research Competition (SRC) Travel Grant
- 2015 ASPDAC, Student Research Competition (SRC) Travel Grant
- 2012 DAC, ACM Student Research Competition (SRC) Travel Grant
- 2012 Non-Volatile Memories Workshop, Travel Grant
- 2012 DAC, ACM Special Interest Group on Design Automation (SIGDA) Young Student Support Program

CONFERENCE
PUBLICATIONS

33. [ICCAD '18] Z. Xu, F. Yu, C. Liu, and X. Chen. **HASP: A High-Performance Adaptive Mobile Security Enhancement Against Malicious Speech Recognition.** *The 37th International Conference on Computer-Aided Design*, to appear, Nov. 2018.

32. [ISLPED '18] Z. Xu, Z. Qin, F. Yu, C. Liu, and X. Chen. **DiReCt: Resource-Aware Dynamic Model Reconfiguration for Convolutional Neural Network in Mobile Systems.** *ACM/IEEE International Symposium on Low Power Electronics and Design*, to appear, Jul. 2018.

31. [ISVLSI '18] C. Liu, Q. Dong, F. Liu, F. Yu, and X. Chen. **ReRise: An Adversarial Example Restoration System for Neuromorphic Computing Security.** *IEEE Computer Society Annual Symposium on VLSI*, to appear, Jul. 2018.

31. [arXiv '18] F. Yu, Q. Dong, and X. Chen. **ASP: A Fast Adversarial Attack Example Generation Framework based on Adversarial Saliency Prediction.** *arXiv:1802.05763*, Feb. 2018.

29. [DAC '18] F. Yu, Q. Dong, and X. Chen. **ASP: A Fast Adversarial Attack Example Generation Framework based on Adversarial Saliency Prediction.** *The 55th Design Automation Conference (WIP)*, Jun. 2018.

28. [DAC '18] Z. Xu, F. Yu, and X. Chen. **DiReCt: Performance-Aware Dynamic Model Reconfiguration for Convolutional Neural Network in Mobile System.** *The 55th Design Automation Conference (WIP)*, Jun. 2018.

27. [ICCAD '17] Z. Qin, Z. Xu, Q. Dong, Y. Chen, and X. Chen. **VoCaM: Visualization Oriented Convolutional Neural Network Acceleration on Mobile System.** *The 36th International Conference on Computer-Aided Design*, Page: 835~840, Nov. 2017. (Invited Paper)

26. [ICCAD '17] J. Mao, Z. Qin, Z. Xu, K. Nixon, X. Chen, H. Li, and Y. Chen. **AdaLearner: An Adaptive Distributed Mobile Learning System for Neural Networks.** *The 36th International Conference on Computer-Aided Design*, Page: 291~296, Nov. 2017.

25. [ICCAD '17] J. Mao, Z. Yang, W. Wen, C. Wu, L. Song, K. Nixon, X. Chen, H. Li, and Y. Chen. **MeDNN: A Distributed Mobile System with Enhanced Partition and Deployment for Large-Scale DNNs.** *The 36th International Conference on Computer-Aided Design*, Page: 751~756, Nov. 2017.

CONFERENCE
PUBLICATIONS
(CONT'D)

24. [SOCC '17] *L. Broyde, K. Nixon, X. Chen, and H. Li.* **MobiCore: An Adaptive Hybrid Approach for Power-Efficient CPU Management on Android Devices.** *The 30th International System On-Chip Conference*, Page: 221~226, Sep. 2017.
23. [DATE '17][Best Paper Award] *J. Mao, X. Chen, K. Nixon, C. Krieger, and Y. Chen.* **MoDNN: Local Distributed Mobile Computing System for Deep Neural Network.** *The 20th International Conference on Design Automation and Test in Europe*, Page: 1396~1401, Mar. 2017.
22. [ICCAD '16][Best Paper Nomination] *K. Nixon, X. Chen, and Y. Chen.* **Scope: Quality Retaining Display Rendering Workload Scaling based on User-Smartphone Distance.** *The 35th International Conference on Computer-Aided Design*, Page: 1~6, Nov. 2016.
21. [SOCC '16] *X. Chen, K. Nixon, and Y. Chen.* **Practical Power Consumption Analysis with Current Smartphones.** *IEEE International System-on-Chip Conference*, Page: 333-337, Oct. 2016.
20. [DAC '16] *X. Chen, J. Mao, J. Gao, K. Nixon, and Y. Chen.* **MORPh: Mobile OLED-friendly Recording and Playback System for Low Power Video Streaming.** *The 53rd Design Automation Conference*, Page: 1~6, Jun. 2016.
19. [ASPDAC '16] *K. Nixon, X. Chen, and Y. Chen.* **Footfall: GPS Polling Scheduler for Power Saving on Wearable Devices.** *The 21st Asia and South Pacific Design Automation Conference*, Page: 563~568, Jan. 2016.
18. [ASPDAC '16] *K. Nixon, X. Chen, and Y. Chen.* **SlowMo: Enhancing Mobile Gesture – Based Authentication Schemes via Sampling Rate Optimization.** *The 21st Asia and South Pacific Design Automation Conference*, Page: 462~467, Jan. 2016.
17. [DAC '15] *X. Chen, C. J. Xue, and Y. Chen.* **DaTuM: Dynamic Tone Mapping Technique for OLED Display Power Saving based on Video Classification.** *The 52nd Design Automation Conference*, Page: 8~12, Jun. 2015.
16. [USENIX HotPower '14] *X. Chen, K. W. Nixon, H. Zhou, Y. Liu, and Y. Chen.* **Finger-Shadow: An OLED Power Optimization based on Smartphone Touch Interactions.** *The 6th International Workshop on Power-Aware Computing and System*, No. 6, Oct. 2014.
15. [USENIX HotPower '14] *K. W. Nixon, X. Chen, H. Zhou, Y. Liu, and Y. Chen.* **Mobile GPU Power Consumption Reduction via Dynamic Resolution and Frame Rate Scaling.** *The 6th International Workshop on Power-Aware Computing and System*, No. 5, Oct. 2014.
14. [DAC '14] *X. Chen, M. Dong, C. Zhang, and Y. Chen.* **Demystify Smartphone Power Consumption: The Evolution of Smartphone Communication Modules.** *The 51st Design Automation Conference*, Page: 1~6, Jun. 2014. (Invited Paper)
13. [CODES+ISSS '13] *M. Zhao, X. Chen, Y. Chen, and C. J. Xue.* **Online OLED Dynamic Voltage Scaling for Video Streaming Applications on Mobile Devices.** *The International Conference on Hardware/Software Co-design and System Synthesis*, Page: 1~10, Oct. 2013.
12. [RTSS '13] *M. Zhao, X. Chen, Y. Chen, and C. J. Xue.* **Online OLED Dynamic Voltage Scaling for Video Streaming Applications on Mobile Devices.** *IEEE Real-Time Systems Symposium*, Volume 10, Issue 2, Page: 18, Jul. 2013.
11. [DAC '13] *X. Chen, Z. Ma, F. C. A. Fernandes, C. J. Xue, and Y. Chen.* **Dynamic Tone Mapping on OLED Display Based on Video Classification.** *The 50th Design Automation Conference (WIP)*, Jun. 2013.

CONFERENCE
PUBLICATIONS
(CONT'D)

10. [DAC '13] **X. Chen, and H. Li. P-Spectrum: A Personalized Smartphone Power Management Technique based on Real-time Battery and User Behavior Monitoring.** *The 50th Design Automation Conference (WIP)*, Jun. 2013.
9. [DAC '13] **K. W. Nixon, X. Chen, Z. Mao, K. Li, and Y. Chen. The Invisible Shield: User Classification and Authentication for Mobile Device based on Gesture Recognition.** *The 50th Design Automation Conference (WIP)*, Jun. 2013.
8. [USENIX HotMobile '13] **X. Chen, Y. Chen, Zhan Ma, and Felix C. A. Fernandes. How is Energy Consumed in Smartphone Display Applications?** *The 16th International Workshop on Mobile Computing Systems and Applications*, No. 3, Feb. 2013.
7. [ASPDAC '13] **K. Nixon, X. Chen, Z. H. Mao, Y. Chen, and K. Li. Mobile User Classification and Authorization based on Gesture Usage Recognition.** *The 18th Asia and South Pacific Design Automation Conference*, Page: 384~389, Jan. 2013.
6. [ICCAD '12] **X. Chen, C. J. Xue, and Y. Chen. Mobile Devices User – The Subscriber and also the Publisher of Real-Time OLED Display Power Management Plan.** *The 31st International Conference on Computer-Aided Design*, Page: 687~690, Nov. 2012. (Invited Paper)
5. [ICCAD '12] **X. Chen, B. Liu, M. Zhao, C. J. Xue, X. Guo and Y. Chen. Active Compensation Technique for the Thin-Film Transistor Variations and OLED Aging of Mobile Device Displays.** *The 31st International Conference on Computer-Aided Design*, Page: 516~522, Nov. 2012.
4. [DAC '12] **X. Chen, M. Zhao, J. Zeng, J. Xue, and Y. Chen. Quality-retaining OLED Dynamic Voltage Scaling for Video Streaming Applications on Mobile Devices.** *The 49th Design Automation Conference*, Page: 1000~1005, Jun. 2012.
3. [ASPDAC '12] **X. Chen, J. Zeng, Y. Chen, and H. Li. Fine-grained Dynamic Voltage Scaling on OLED Display.** *The 17th Asia and South Pacific Design Automation Conference*, Page: 807~812, Jan. 2012.
2. [CICC '11] **P. Wang, X. Chen, Y. Chen, H. Li, S. Kang, X. Zhu, and W. Wu. A 1.0V 45nm Nonvolatile Magnetic Latch Design and its Robustness Analysis.** *IEEE Custom Integrated Circuits Conference*, Page: 1~4, Sep. 2011.
1. [WCSE '09] **X. Chen, Z. Zhang, and R. Chen. A Real-Time Driving Fatigue Monitoring DSP Device based on Computing Complexity of Binarized Image.** *IEEE International Workshop on Computer Science and Engineering*, Volume. 1, Page: 84~89, Oct. 2009.

JOURNAL
PUBLICATIONS

6. **Z. Qin, F. Yu, C. Liu, and X. Chen. How Convolutional Neural Networks See the World – A Survey of Convolutional Neural Network Visualization Methods.** *Advances in Mathematics of Communications (AMC) Journal on Mathematical Foundations of Computing (MFC)*, to appear.
5. **Z. Sun, X. Chen, Y. Zhang, H. Li, and Y. Chen. Nonvolatile Memories as the Data Storage System for Implantable ECG Recorder** *ACM Journal on Emerging Technologies in Computing Systems*, Volume 8, Issue 2, Jun. 2012.
4. **X. Chen, W. Zhang, C. J. Xue, H. Li, and Y. Chen. DiViSi: Quality-retaining Dynamic Driver Voltage Scaling for Organic Light Emitting Diode Displays.** *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, under review.

JOURNAL
PUBLICATIONS
(CONT'D)

3. **X. Chen, C. J. Xue, X. Guo, and Y. Chen. ACTON: Active Compensation Technique for the Thin-Film Transistor Variations and OLED Aging of OLED Display Panel** IEEE Transactions on *Computer-Aided Design of Integrated Circuits and Systems*, under review.
2. **X. Chen, Y. Gong, K. Nixon, and Y. Chen. EcHT: Enhanced Hover-Touch Interaction System for Android Smartphones.** *IEEE Embedded Systems Letters*, working in progress.
1. **X. Chen, K. Nixon, and Y. Chen. FingerFocus: An Mobile User Visual Focus Analysis Method based on Finger Touch Operation and Its Application** *USENIX ATC*, working in progress.

INVITED TALKS
&
CONFERENCE
PRESENTATION

17. **"Adversarial Attacks in Mobile Neural Network System"**
Beijing Normal University, Beijing, China. 01/18/2018;
Capital Normal University, Beijing, China. 01/16/2018;
Chinese University of Hong Kong, Hong Kong. 01/14/2018;
Northeastern University, Shenyang, China. 12/24/2017.
16. **"VoCaM: Visualization Oriented Convolutional Neural Network Acceleration on Mobile System"**
IEEE International Conference on Computer-Aided Design (ICCAD), Irvine, CA. 11/13/2017.
15. **"Challenges and Opportunities in Next-gen VR/AR Development"**
Huawei Beijing Research Center, Beijing, China. 01/09/2017;
Lenovo Innovation Center, Beijing, China. 12/15/2016.
14. **"Challenges and Opportunities in Mobile Development"**
Northeastern University, Shenyang, China. 12/29/2016;
Peking University, Beijing, China. 12/28/2016;
Beijing University of Post and Telecommunication, Beijing, China. 12/26/2016;
Shandong University, Jinan, China. 12/21/2016;
Beijing University of Technology, Beijing, China. 12/19/2016;
Beihang University, Beijing, China. 12/18/2016.
13. **"Smartphone Sensor: Soul of User-Centric Study"**
Huawei Hangzhou Research Center, Hangzhou, China. 8/27/2015.
12. **"From Device to End-user: The Evolution in Smartphone Power Optimization"**
Hong-Kong City University, Hong Kong, China. 8/19/2015;
Peking University, Beijing, China. 7/24/2015.
11. **"Smartphone and Display Power Consumption Analysis and Optimization"**
Tsinghua University, Beijing, China. 8/29/2014.
10. **"OREO: Tri-layer Optimization for Power Efficient OLED Display"**
Microsoft Research Asia, Beijing, China. 6/4/2014.
9. **"OLED Display Power Optimization in Android UI System"**
Samsung R&D Lab, Dallas, TX. 12/15/2012.
8. **"Practical Power Consumption Analysis with Current Smartphones"**
IEEE International System-on-Chip Conference (SoCC), Seattle, WA. 9/9/2016.
7. **"MORPh: Mobile OLED-friendly Recording and Playback System for Low Power Video Streaming"**
The Design Automation Conference (DAC), Austin, TX. 6/9/2016.

INVITED TALKS
&
CONFERENCE
PRESENTATION
(CONT'D)

6. **"DaTuM: Dynamic Tone Mapping Technique for OLED Display Power Saving based on Video Classification"**
The 52nd Design Automation Conference (DAC), San Francisco, CA. 6/10/2015.
5. **"FingerShadow: An OLED Power Optimization based on Smartphone Touch Interactions"**
The International Workshop on Power-Aware Computing and System (USENIX HotPower), Denver, CO. 10/5/2014.
4. **"How is Energy Consumed in Smartphone Display Applications?"**
The International Workshop on Mobile Computing Systems and Applications (HotMobile), Jekyll Island, GA. 2/26/2013.
3. **"Active Compensation Technique for the Thin-Film Transistor Variations and OLED Aging of Mobile Device Display"**
The International Conference on Computer-Aided Design (ICCAD), Austin, TX. 12/7/2012.
2. **"Quality-retaining OLED Dynamic Voltage Scaling for Video Streaming Applications on Mobile Device"**
The 49th Design Automation Conference (DAC), San Francisco, CA. 6/19/2012.
1. **"A Real-Time Driving Fatigue Monitoring DSP Device based on Computing Complexity of Binarized Image"**
IEEE International Workshop on Computer Science and Engineering, Volume, Qingdao, China. 10/28/2012.

PROFESSIONAL
SERVICE

Technical Program Committee Service

- Technical Program Committee — ASPDAC 2018
The 24th Asia and South Pacific Design Automation Conference
- Technical Program Committee — EdgeSP 2018
The ACM/IEEE workshop on Security and Privacy in Edge Computing
- Technical Program Committee — CCNCPS-ICC 2018
The IEEE International Workshop on Communication, Computing, and Networking Conference in Cyber Physical Systems (CCNCPS) in association with The IEEE International Conference on Communications (ICC)
- Technical Program Committee — ASPDAC-SRF 2018
Student Research Forum
The 23rd Asia and South Pacific Design Automation Conference
- Technical Program Committee — SOCC 2017
The 30th International System On-Chip Conference
- Technical Program Committee, Euro-Par 2017
The 23rd International Conference on Parallel and Distributed Computing Workshops, Advanced Parallel Processing Technology for Artificial Intelligence
- Technical Program Committee — GLVLSI 2017
The 27th ACM Great Lakes Symposium on VLSI
- Technical Program Committee — CCNCPS-IPCCC 2016
The IEEE International Workshop on Communication, Computing, and Networking Conference in Cyber Physical Systems (CCNCPS) in association with The IEEE International Performance Computing and Communications Conference (IPCCC)

PROFESSIONAL SERVICE (CONT'D) Technical Program Committee Service (cont'd)

PROFESSIONAL SERVICE (CONT'D)

- Technical Program Committee — DC 2016
The IEEE International Workshop on Energy-Aware Data Centers: Design, Analysis, and Implementation

Event Service

- Session Chair — DAC 2018, The 55th Design Automation Conference
- Session Chair — SOCC 2018, IEEE International SoC (System-on-Chip) Conference
- Session Chair — HALO 2017
Sigda Workshop on Hardware and Algorithms for Learning On-a-Chip
- Session Chair — ISVLSI 2016
IEEE Computer Society Annual Symposium on VLSI
- Local Chair — NanoCom 2017
The 4th ACM International Conference on Nanoscale Computing and Communication
- Conference Arrangement — ICFC 2016
Future Chip 2016 by Tsinghua University
- Contest Arrangement — CADthon 2016
ACM Special Interest Group Design Automation (SIGDA) CADathlon at the International Conference on Computer-Aided Design (ICCAD)

Journalist

- Column Writer — TC-CPS 2017 Cyber-Physical Systems Newsletter,
- Editor — ACM Special Interest Group Design Automation (SIGDA) E-Newsletter

Paper Review

- Reviewer — CCNCPS 2018, International workshop on Communication, Computing, and Networking in Cyber Physical Systems
- Reviewer — ESL 2018, IEEE Embedded Systems Letters
- Reviewer — GLSVLSI 2018, ACM Great Lakes Symposium on VLSI
- Reviewer — NEUCOM 2018, Elsevier Journal of Neurocomputing
- Reviewer — NCAA 2018, International Journal of Neural Computing and Applications
- Reviewer — SUSCOM 2018,
ELSEVIER Journal of Sustainable Computing Informatics and Systems
- Reviewer — TECS 2018, ACM Transactions on Embedded Computing Systems
- Reviewer — TVLSI 2018, IEEE Transactions on Very Large Scale Integration Systems
- Reviewer — CCNCPS 2017, International workshop on Communication, Computing, and Networking in Cyber Physical Systems
- Reviewer — DT 2017, IEEE Journal of Design & Test
- Reviewer — ESL 2017, IEEE Embedded Systems Letters
- Reviewer — GLSVLSI 2017, ACM Great Lakes Symposium on VLSI
- Reviewer — JEDS 2017, IEEE Journal of the Electron Devices Society
- Reviewer — JETC 2017, ACM Journal on Emerging Technologies in Computing Systems
- Reviewer — NCAA 2017, International Journal of Neural Computing and Applications
- Reviewer — PATMOS 2017, IEEE International Symposium on Power and Timing Modeling, Optimization and Simulation

PROFESSIONAL Paper Review (cont'd)

**SERVICE
(CONT'D)**

- Reviewer — SOCC 2017, IEEE International SoC (System-on-Chip) Conference
- Reviewer — TCAD 2017, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems
- Reviewer — TECS 2017, ACM Transactions on Embedded Computing Systems
- Reviewer — TSMC 2017, IEEE Transactions on systems, Man and Cybernetics: Systems
- Reviewer — TVLSI 2017, IEEE Transactions on Very Large Scale Integration Systems
- Reviewer — UIST 2017, ACM Symposium on User Interface Software and Technology

- Reviewer — DSN 2016, International Journal of Distributed Sensor Network
- Reviewer — DT 2016, IEEE Journal of Design & Test
- Reviewer — NAS 2016, IEEE International Conference on Networking Architecture, and Storage

- Reviewer — NCAA 2016, International Journal of Neural Computing and Applications
- Reviewer — SOCC 2016, IEEE International SoC (System-on-Chip) Conference
- Reviewer — TCAD 2016, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems

- Reviewer — THMS 2016, IEEE Transactions on Human-Machine Systems

- Reviewer — MDPI 2015, International Journal of Sustainability
- Reviewer — IET 2014, International Journal of Image Processing
- Reviewer — RTCSA 2013, IEEE International Conference on Embedded and Real-Time Computing Systems and Applications
- Reviewer — ISIE 2013, IEEE Industrial Electronics Society International Symposium on Industrial Electronics