

Curriculum Vitae

Wenbing Zhao

Professor

Chair, Graduate Program Committee (Department)

ABET EAC & CAC Program Evaluator

Department of Electrical Engineering and Computer Science, Cleveland State University

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MAJOR FIELDS OF COMPETENCE

- **Smart and Connected Healthcare**
 - **Blockchain**
 - **Computer Vision and Motion Analysis**
 - **Machine Learning**
 - **Dependable Distributed Computing**
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EDUCATION

06/2002 **Ph.D. in Electrical and Computer Engineering**

University of California, Santa Barbara

06/1998 **M.S. in Electrical and Computer Engineering**

University of California, Santa Barbara

07/1993 **M.S. in Physics**

Peking University, P. R. China

07/1990 **B.S. in Physics**

Peking University, P. R. China

RESEARCH & DEVELOPMENT EXPERIENCE

08/2016-present **Professor**, Department of Electrical Engineering and Computer Science, Cleveland State University

08/2010-08/2016 **Associate Professor**, Department of Electrical and Computer Engineering, Cleveland State University

08/2004-08/2010 **Assistant Professor**, Department of Electrical and Computer Engineering, Cleveland State University

01/2003-08/2004 **Post-Doctoral Researcher**, Department of Electrical and Computer Engineering, University of California, Santa Barbara

12/2000-07/2004 **Chief Architect/Senior Research Engineer and Co-founder**, Eternal Systems, Inc.

TEACHING EXPERIENCE

08/2016-present **Professor**, ECE Department, Cleveland State University

08/2010-08/2016 **Associate Professor**, ECE Department, Cleveland State University

08/2004-08/2010 **Assistant Professor**, ECE Department, Cleveland State University

- “Mobile Application Development” (CIS470), spring 2018, spring 2019, spring 2020, spring 2021, spring 2022
- “Data Communication and Networks” (CIS454/554), spring 2020, spring 2021, fall 2021, summer 2022, fall 2022
- “Android Sensor Programming” (CIS492/EEC493), spring 2019
- “Android Sensor Programming” (CIS694/EEC693), fall 2019, fall 2021, fall 2022
- “Kinect Application Development” (EEC492/592), spring 2014
- “Applied Computing Vision with Depth Cameras” (EEC693/793), spring 2014, spring 2015, spring 2016, summer 2016, spring 2017, summer 2017, summer 2018, summer 2019
- “Senior Design” (EEC490), spring 2012, 2016-2017, 2017-2018, 2018-2019, 2019-2020, 2020-2021, 2021-2022
- “iPhone Application Development” undergraduate course (EEC492), fall 2010
- “*Distributed Computing Systems*” graduate-level course (EEC681/781), fall 2004, spring 2006, fall 2006, fall 2008
- “*Computer Networks*” undergraduate/graduate-level course (EEC484/584), spring 2005, fall 2005, fall 2006, spring 2007, fall 2007, spring 2008, fall 2008, spring 2009, fall 2009, spring 2010, fall 2010, spring 2011, fall 2011, spring 2012, fall 2012, fall 2013, fall 2014, spring 2015; CIS454/554 spring 2020, fall 2021, fall 2022
- “*Modeling and Performance Evaluation of Computer Systems*” graduate-level course (EEC685/785), fall 2005
- “*Secure and Dependable Computing*” graduate-level course (EEC693/793, approved as EEC688/788), spring 2006, spring 2007, spring 2008, spring 2009, fall 2009, spring 2011, fall 2013, fall 2014, summer 2015, fall 2015, summer 2016, fall 2016, summer 2017, fall 2017, fall 2018

AWARDS AND HONORS

- IEEE Access outstanding associate editors of 2020: <https://ieeaccess.ieee.org/editorial-leadership-and-staff/outstanding-associate-editors/>
- IEEE Access outstanding associate editors of 2018: <https://ieeaccess.ieee.org/editorial-leadership-and-staff/outstanding-associate-editors/>
- News reporting about Dr. Wenbing Zhao’s research work. PlainDealer and Cleveland.com. Solutions to nursing home worker injuries seen as an investment: A Critical Choice, April 8, 2018: https://www.cleveland.com/metro/index.ssf/2018/04/solutions_to_nursing_home_work.html
- Cleveland State University *Distinguished Faculty Award* in Teaching, 2017
- Cleveland State University *Golden Apple Award*, 2017, 2018
- **Best Paper Award** of the 2016 2nd *International Conference on IT and Education Innovations*. Paper Title: “Enhancing Undergraduate Research Experience with Cutting Edge Technologies”
- Significant Research Citation by Science of Security Virtual Organization (<http://cps-vo.org/group/SoS>) for two of my papers titled “Application-Aware Byzantine Fault Tolerance” and “Towards Trustworthy Complex Event Processing”, 2015
- **Top 10 Smart World Challenges** (my entry titled “*Smart Software Infrastructure for Smart Worlds*”), selected by the Open Forum on Top10Cs, as part of the 2015 Smart World Congress, August 10-14, Beijing, China. (Selection result:

<http://www.cybermatics.org/SmartWorldCongress2015/SWC2015/Top10Cs/index.php?action=results>

- **The Best Paper Award** of the 2012 *International Conference on Distributed Computing Engineering*. Paper Title: “Concurrent Byzantine Fault Tolerance for Software-Transaction-Memory Based Applications”
 - **Most Promising Research Award** of the 2007 *Middleware for Web Services Workshop*. Paper Title: “BFT-WS: A Byzantine Fault Tolerance Framework for Web Services”
 - **Best Paper Award on Computer Systems** of the 2002 *International Symposium on Performance Evaluation of Computer and Telecommunication Systems*
Paper Title: "End-to-end latency analysis and evaluation of a fault-tolerant CORBA infrastructure", with L. E. Moser and P. M. Melliar-Smith
 - **Fenn College Distinguished Faculty Teaching Award**, Cleveland State University, May 2007.
 - **Merit-Based Award**, Cleveland State University, 2008, 2009, 2012, 2013, 2014, 2016, 2017, 2018
 - **National Chi-Sun Yeh Thesis Award on Experimental Physics**, for my M.S. thesis, P. R. China, 1993
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PATENTS

- **Systems and Methods for Privacy-Aware Motion Tracking with Automatic Authentication**, US Patent 11,393,318, Date of Patent: July 19, 2022, as sole inventor, Cleveland State University
 - **Systems and Methods for Privacy-Aware Motion Tracking with Notification Feedback**, US Patent 10,210,737, Date of Patent: Feb 19, 2019, as sole inventor, Cleveland State University
 - **Consistent Time Service for Fault-Tolerant Distributed Systems**, US Patent 7,334,014B2 with L. E. Moser and P. M. Melliar-Smith, Availigent, Inc.
 - **System and Method for Automatically Recognizing Activities and Gaze Patterns in Human Patient Simulations**, provisional patent filed on June 21, 2019, as lead inventor, application number 62864897, Cleveland State University
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THESES AND DISSERTATION

- **Unification of Replication and Transaction Processing**
Ph.D. Dissertation, University of California, Santa Barbara, June 2002
 - **Epitaxial C₆₀ Thin Films: Synthesis, Interaction, Electronic-Transport Property and Transmission Electron Microscopy**
M.S. Thesis, Peking University, Beijing, P. R. China, July 1993
 - **Synthesis and Measurement of YBCO Superconducting Thick Films**
B.S. Thesis, Peking University, Beijing, P. R. China, July 1990
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RESEARCH GRANTS

External (total over \$2.6M)

- **Developing Modeling and Simulation-Based Multidisciplinary Learning Environment for Urban Universities**. As co-PI (with PI-Yongxin Tao and several other co-PIs). US Department of Education, 1/1/2023-12/31/2025. Award amount \$1,009,852.

- **MRI: Acquisition of a GPU-based High Performance Computing Instrumentation for Smart City Research at Cleveland State University.** As co-PI (with PI-Hongkai Yu, Sathish Kumar, Mehdi Rahmati, and Zicheng Chi). National Science Foundation Major Research Instrumentation Program, 10/1/2022-9/30/2025. Award amount \$434,431 (with cost-sharing from CSU of the amount of \$186,185).
- **Peer Life Coach.** As PI. Subaward from University of Akron, National Science Foundation, i-Corps Site Program, \$2,500, 10/1/2020 – 10/31/2021. With Dr. Xiongyi Liu.
- **The CuTrack Cellphone Application.** As co-investigator. Ohio Department of Higher Education, \$252,819, 2/2020-6/30/2021. With Drs. Ilya Yaroslavsky (PI), Sandra Hurtado Rua, Cathleen Lewandowski.
- **Secure Data Logging and Processing with Blockchain and Machine Learning.** As Co-PI. Subaward from Florida International University, National Energy Technology Laboratory, US Department of Energy (Grant DE-FE0031745). \$180,000 (\$400,000 total), 9/2019-8/2022.
- **Technology-Enhanced Human Patient Simulations,** As one of two PIs, \$15,000. Ohio i-Corps Program, Ohio Department of Higher Education, 4/2019-8/2019
- **A Privacy-Aware Compliance Tracking System with Realtime Feedback,** As PI. \$100,000. Cleveland State University/Kent State University TeckFund, 01/01/2018-04/30/2019.
- **A Privacy-Aware Compliance Tracking System with Realtime Feedback.** As PI. \$15,000. Ohio i-Corps Program, Ohio Department of Higher Education, 4/2017-3/2018.
- **Drughelp.care: A Web app designed to more quickly match substance users with needed treatment.** As co-PI with Miyuki Tedor and Patricia Dare. \$20,000. Woodruff Foundation. 3/2018-12/2019.
- **Safe Patient Handling among STNA's in Nursing Homes: Compliance, Monitoring, and Continuous Quality Improvement of Best Practices.** Ohio Bureau of Workers' Compensation, Award amount \$246,462, as PI from 5/18/2017-8/31/2017, as co-PI from 6/1/2015-5/17/2017, with Drs. Goodman, Espy, Reinthal, Ekelman, Niederriter. 6/1/2015-8/31/2017.
- **Privacy-Aware Human Motion Tracking and Its Application in Safe Patient Handling,** as PI. NSF Smart and Connected Health (SCH) Aspiring Investigators Workshop, June 30, 2015. Up to \$1,500 to cover the cost of attending the workshop.
- **MRI: Acquisition of Equipment to Establish a Secure and Dependable Computing Infrastructure for Research and Education at Cleveland State University.** As lead PI (with Dr. Nigamanth Sridhar, Chansu Yu and Yongjian Fu). National Science Foundation Major Research Instrumentation Program, 2008-2012. Award amount \$150,000 (with cost-sharing from CSU of the amount of \$93,914).
- **Byzantine Fault Tolerance as a Service,** REU Supplement Grant to MRI: Acquisition of Equipment to Establish a Secure and Dependable Computing Infrastructure for Research and Education at Cleveland State University. As lead PI (with Dr. Nigamanth Sridhar, Chansu Yu and Yongjian Fu). National Science Foundation Major Research Instrumentation Program, 2012. Award amount \$16,000.
- **Byzantine Fault Tolerant Event Stream Processing,** REU Supplement Grant to MRI: Acquisition of Equipment to Establish a Secure and Dependable Computing Infrastructure for Research and Education at Cleveland State University. As lead PI (with Dr. Nigamanth Sridhar,

Chansu Yu and Yongjian Fu). National Science Foundation Major Research Instrumentation Program, 2010. Award amount \$16,000.

- **Towards a Lightweight Highly Dependable Storage System for Home Networks**, REU Supplement Grant to MRI: Acquisition of Equipment to Establish a Secure and Dependable Computing Infrastructure for Research and Education at Cleveland State University. As lead PI (with Dr. Nigamanth Sridhar, Chansu Yu and Yongjian Fu). National Science Foundation Major Research Instrumentation Program, 2009. Award amount \$16,000.
- **Enhancing the DriveSafety Driving Simulator for Research on Short-Term Construction Work Zones**. As PI, United States Department of Transportation (via CSU Transportation Center), 2/2010-8/2011. Award amount \$44,767.

Internal

- **Develop an Online Portal Towards Personalized Learning in Engineering**. As PI, CSU USRA summer 2020, \$4,914.
- **Develop a Mobile App Towards Stronger Sense of Belonging for College Students during the Covid-19 Pandemic**. As PI, CSU USRA summer 2020, \$4,914.
- **Develop a Mobile App Towards Evidence-Based Assessment of Human Behavior**. As PI, CSU USRA summer 2020, \$4,914.
- **Complex Human Activity Recognition**. As PI, CSU USRA summer 2019, \$4,500.
- **Virtual Reality Based Serious Games for STNA Training**. As PI. CSU USRA summer 2018, \$3,780.
- **FRD-IoT: A Multi-Modal Sensing Platform for Behavior and Emotion Monitoring**. As PI, CSU FRD-IoT, 2017-2018, \$8,000.
- **FRD-IoT: Development of a Web-Based System for Supporting Home-Based Care and Treatment of Children with Autism Spectrum Disorder (ASD)**. As co-PI, with Xiongyi Liu, CSU FRD-IoT, 2017-2018, \$8,000.
- **FRD-IoT: Development of a Mobile App/Web**, as Co-PI with Miyuki Tedor, Patricia Stoddard-Dare, CSU FRD-IoT, 2017-2018, \$8,000.
- **BUDDY: A Virtual Reality Based Computer System for Children with Autism Spectrum Disorders**. As PI (with Dr. Xiongyi Liu), CSU USRA summer 2017, \$8,000.
- **Human Gait Analysis Using Wearable Sensors**. As faculty advisor (student researcher: Venkat Padaraju). Spring 2017. \$1,000. CSU undergraduate research award program.
- **A Multi-Modal Sensing Platform for Behavior and Emotion Monitoring**. As faculty advisor (student researcher: Gabriel Madison). Fall 2017. \$1,000. CSU undergraduate research award program.
- **Enhancing Multidirectional Harnessed Mobility Training with Realtime Sensing and Feedback**. As PI (with R. Reinthal), CSU Faculty Research Development (FRD) Program, 2016, Award amount: \$25,000.
- **Development of the Technology for the Exercise Tutor: A System for Proxy Exercise Guidance**. As Co-PI (with D. Espy, A. Reinthal, and N. Sridhar), CSU Faculty Research Development (FRD) Program, 2012, Award amount: \$18,236.00.

- **A Human Centered Activity Tracking Service towards a Healthier Workplace.** As PI, CSU Undergraduate Summer Research Award Program, 2016. Award amount: \$4,780.
- **Towards a More Dependable Integrated Clinical Environment.** As PI, CSU Undergraduate Summer Research Award Program, 2016. Award amount: \$4,380.
- **Towards Safer Patient Handling among Workers in Nursing Homes.** As PI with Dr. Goodman. CSU Undergraduate Summer Research Award Program, 2015. Award amount: \$8,500.
- **Building Highly Dependable Distributed Systems.** As PI. CSU Scholarship Initiate Research Program, 2010. Award amount \$5,000.
- **Towards Secure and Dependable Computing.** As PI. CSU Faculty Research Development (FRD) Program, 2006. Award amount \$12,314 (with cost-sharing from Department of Electrical and Computer Engineering of the amount of \$13,230).
- **Use of Computer Gaming as an Adjunct during Outpatient Stroke Rehabilitation to Obtain Task Specific Upper Extremity Practice Repetitions.** As Co-PI (with A. Reinthal, M. Milidonis, and N. Sridhar), CSU Faculty Research Development (FRD) Program, 2009, Awarded \$12,816.49.
- **Improving Work Zone Safety using Sensor Networks: Undergraduate Research Experience in Computer Engineering.** As Co-PI with Drs. Pong Chu, Yongjian Fu, Nigamanth Sridhar, Chansu Yu, and Ye Zhu. Engaged Learning: CSU Undergraduate Research Program, 2008. Award amount \$18,187.20.
- **Touch-Based Pervasive Computing Exploration.** As lead PI. Engaged Learning: CSU Undergraduate Research and Creative Achievement program, 2009. Award amount \$16,370.40.
- **Enabling Pervasive Participatory Sensing Application.** As Co-PI with Drs. Pong Chu, Yongjian Fu, Nigamanth Sridhar, Chansu Yu, and Ye Zhu. Engaged Learning: CSU Undergraduate Research Program, 2008. Award amount \$16,692.00.
- **Participatory Sensing for Intelligent Transportation Systems.** As PI with Drs. Pong Chu, Yongjian Fu, Nigamanth Sridhar, Chansu Yu, and Ye Zhu. Engaged Learning: CSU Undergraduate Research Program, 2011. Award amount \$9,093.60.
- **A Low Cost Motion Analysis System Based on Kinect.** As PI with Drs. Sridhar, Reinthal, and Epsy. Engaged Learning: CSU Undergraduate Research and Creative Achievement Program, 2012. Award amount: \$13,154.
- **An American Sign Language Translation System Based on Kinect.** As PI. CSU Undergraduate Summer Research Award Program, 2013. Award amount: \$8,160.

EDUCATION GRANTS

- **Android Sensor Programming.** As PI. CSU IoT Course Development Award, \$8,000. 2018-2019.
- **Interactive Algorithm Visualization for Computer Networks.** As PI. CSU Teaching Enhancement Award, \$1,000. 2014-2015.
- **A New Course on Kinect Application Development.** As PI. CSU Teaching Enhancement Award, \$4,000. 2013-2014.

- **Kinect for Education: Making the Senior Design More Relevant, More Cutting-Edge, and More Fun.** As PI. CSU Teaching Enhancement Award, \$2,385. 2011-2012.
- **A New Course on iPhone/iPod Touch Application Development.** As PI (with Co-PI Dr. Nigamanth Srdihar). CSU Teaching Enhancement Award, \$5,000. 2009-2010.
- **Bringing the Fun and Excitement of iPod Touch into Classroom: An Engaged Learning Experience for EEC484/584 Students.** As PI. CSU Teaching Enhancement Award, \$3,939. 2008-2009.
- **Information Literacy Education in EEC484/584 Computer Networks.** As sole PI. CSU Information Literacy Small Grant, \$1,000, 2007.

AUTHORED RESEARCH MONOGRAPHS

- 1) **W. Zhao**, *From Traditional Fault Tolerance to Blockchain*, Scrivener Publishing (a Wiley Imprint), May 2021.
- 2) **W. Zhao**, *Building Dependable Distributed Systems*, Scrivener Publishing (a Wiley Imprint), March 2014.
- 3) **W. Zhao**, *Technology-Enabled Motion Sensing for Rehabilitation*, The Institution of Engineering and Technology, manuscript delivered, in press, 2023.

EDITED BOOKS

- 4) **W. Zhao** and S. Sampali, *Sensing and Signal Processing in Smart Healthcare*, MDPI, January 2021. <https://www.mdpi.com/books/pdfview/book/3364>.
- 5) **W. Zhao**, X. Luo, and T. Qiu, *Recent Development in Smart Healthcare*, MDPI, March 2018. <http://www.mdpi.com/books/pdfview/book/494>.
- 6) T.-H. Meen, **W. Zhao**, and C.-F. Yang, *Intelligent Electronic Devices*, MDPI, May 2020. <https://www.mdpi.com/books/pdfview/book/2286>.
- 7) L. Wang, T. Qiu, and **W. Zhao**, *Quality, Reliability, Security and Robustness in Heterogeneous Systems* (the 13th International Conference, QShine 2017 Dalian, China, December 16–17, 2017 Proceedings), Springer, LNICST, volume 234, <https://link.springer.com/book/10.1007%2F978-3-319-78078-8>.

PEER-REVIEWED JOURNAL PUBLICATIONS

- 8) **Wenbing Zhao**. "On Nxt Proof of Stake Algorithm: A Simulation Study." *IEEE Transactions on Dependable and Secure Computing*, accepted in 2022, DOI 10.1109/TDSC.2022.3193092.
- 9) Jianyuan Li, Xiong Luo, Huimin Ma, **Wenbing Zhao**, "A Hybrid Deep Transfer Learning Model With Kernel Metric for COVID-19 Pneumonia Classification Using Chest CT Images." *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, accepted in 2022, DOI 10.1109/TCBB.2022.3216661. DOI 10.1016/j.dcan.2022.09.015.
- 10) Xiong Luo, Zhijian Yu, Zhigang Zhao, **Wenbing Zhao**, Jeng-Haur Wang, "Effective short text classification via the fusion of hybrid feature for IoT social data." *Digital Communications and Networks*, accepted in 2022, .
- 11) Ting Wang, Xiong Luo, and **Wenbing Zhao**. "Improving the performance of tasks offloading for internet of vehicles via deep reinforcement learning methods." *IET Communications*, vol. 16, pp. 1230-1240, 2022.
- 12) Honghao Gao, Ying Li, Zijian Zhang, and **Wenbing Zhao**. "Machine Learning Used in Biomedical Computing and Intelligence Healthcare, Volume II." *Frontiers in Genetics*, vol. 13, pp. 850667, May, 2022.

- 13) Kaijian Xia, **Wenbing Zhao**, Alireza Jolfaei, and Tamer Ozsu. "Introduction to The Special Section On Edge/Fog Computing for Infectious Disease Intelligence." *ACM Transactions on Internet Technology*, vol. 22, no. 3, pp. 1-2. 2021.
- 14) Guoyan Zheng, Daoqiang Zhang, and **Wenbing Zhao**. "Guest Editorial Multi-Modal Computing for Biomedical Intelligence Systems." *IEEE Journal of Biomedical and Health Informatics*, vol. 25, no. 9, pp. 3256-3257, 2021.
- 15) **Wenbing Zhao**, C. Rong, J. Wu, Z. Sun, & S. Sampalli. "IEEE Access Special Section Editorial: Blockchain Technology: Principles and Applications," *IEEE Access*, 9, 110006-110010, August 2021.
- 16) **Wenbing Zhao**, Shunkun Yang, and Xiong Luo. "Towards rehabilitation at home after total knee replacement." *Tsinghua Science and Technology*, 26, no. 6, pp. 791-799, June 2021.
- 17) Xiong Luo, Jianyuan Li, Weiping Wang, Yang Gao, and **Wenbing Zhao**. "Towards improving detection performance for malware with correntropy-based deep learning method." *Digital Communications and Networks*, vol. 7, no. 4, pp. 570-579, 2021.
- 18) Honghao Gao, Ying Li, Zijian Zhang, and **Wenbing Zhao**. "Machine Learning Used in Biomedical Computing and Intelligence Healthcare, Volume I." *Frontiers in Genetics*, vol. 12, pp. 678140, May 3, 2021.
- 19) **Wenbing Zhao**, C. Jiang, H. Gao, S. Yang, X. Luo, "Blockchain-Enabled Cyber-Physical Systems: A Review," *IEEE Internet of Things Journal* (Impact Factor: 9.936), vol.8, no.6, pp. 4023-4034, March 15, 2021.
- 20) T. Qiu, M. Zhang, X. Liu, J. Liu, C. Chen, **Wenbing Zhao**, "A Directed Edge Weight Prediction Model Using Decision Tree Ensembles in Industrial Internet of Things," *IEEE Transactions on Industrial Informatics* (Impact Factor: 9.112), vol.17, no.3, pp. 2160-2168, March 2021.
- 21) Honghao Gao, A. Munoz, Wenbing Zhao, Y. Yin, "Location-aware Computing to Mobile Services Recommendation: Theory and Practice," *Journal of Ambient Intelligence and Smart Environments*, vol.13, no. 1, pp.3-4, Jan. 2021.
- 22) **Wenbing Zhao** and S. Sampalli, "Sensing and Signal Processing in Smart Healthcare," *Electronics*, vol.9, no.11, article no. 1954, November 2020.
- 23) **Wenbing Zhao**, X. Liu, T. Qiu, and X. Luo, "Virtual Avatar-Based Life Coaching for Children with Autism Spectrum Disorder," *Computer*, IEEE, vol.53, no.2, pp. 26-34, Feb. 2020.
- 24) T.-H. Meen, **Wenbing Zhao**, and C.-F. Yang, "Special Issue on Intelligent Electronic Devices," *Electronics*. 2020, 9(4), 645; <https://doi.org/10.3390/electronics9040645>.
- 25) T.-H. Meen, Wenbing Zhao, and C.-F. Yang, "Special Issue on Selected Papers from IEEE ICKII 2019," *Energies*. 2020, 13(8), 1916; <https://doi.org/10.3390/en13081916>.
- 26) Wei Zhao, **Wenbing Zhao**, Wenfeng Wang, Xiaolu Jiang, Xiaodong Zhang, Yonghong Peng, Baocan Zhang, Guokai Zhang, "A Novel Deep Neural Network for Robust Detection of Seizures Using EEG Signals," *Computational and Mathematical Methods in Medicine*, vol. 2020, article ID 9689821, 2020.
- 27) Yanqiu Zeng, Baocan Zhang, Wei Zhao, Shixiao Xiao, Guokai Zhang, Haiping Ren, **Wenbing Zhao**, Yonghong Peng, Yutian Xiao, Yiwen Lu, Yongshuo Zong, Yimin Ding, "Magnetic Resonance Image Denoising Algorithm Based on Cartoon, Texture, and Residual Parts," *Computational and Mathematical Methods in Medicine*, vol. 2020, article ID 1405647, 2020.
- 28) J. Sun, Z. Wang, X. Luo, P. Shi, W. Wang, L. Wang, J-H. Wang, and **Wenbing Zhao**, "A Parallel Recommender System Using a Collaborative Filtering Algorithm with Correntropy in Social Networks," *IEEE Transactions on Network Science and Engineering*, vol.7, no.1, Jan-March 2020, pp. 91-1023.
- 29) C. Cai, C. Huang, C. Yang, X. Zhang, Y. Peng, **Wenbing Zhao**, X. Hong, F. Ren, D. Hong, Y. Xiao, and J. Yan, "Altered Patterns of Phase Position Connectivity in Default Mode Subnetwork of

Subjective Cognitive Decline and Amnestic Mild Cognitive Impairment,” *Frontiers in Neuroscience*, vol.14, article 185, March 2020.

- 30) **Wenbing Zhao**, Yonghong Peng, Kun Hua, Peng Shi, and Hongqiao Wang. "IEEE Access Special Section Editorial: Human-Centered Smart Systems and Technologies." *IEEE Access* vol.7 pp.185469-185475, 2019.
- 31) **Wenbing Zhao**, D. Espy, A. Reinthal, “Assessment of Sit-to-Stand Movements Using a Single Kinect Sensor: A Preliminary Study in Healthy Subjects,” *International Journal of Healthcare Information Systems and Informatics*, vol.14, no.1, pp. 29-43, January 2019.
- 32) Teen-Hang Meen and **Wenbing Zhao**, “Special Issue on Selected Papers from IEEE ICKII 2018,” *Electronics*, vol.8, no.7, pp. 757, July 5, 2019.
- 33) Nan Xue, Xiong Luo, Yang Gao, Weiping Wang, Long Wang, Chao Huang and **Wenbing Zhao**, “Kernel Mixture Correntropy Conjugate Gradient Algorithm for Time Series Prediction,” *Entropy*, vol. 21, no.8, pp. 785, August 11, 2019.
- 34) X Luo, Y Li, W Wang, X Ban, JH Wang, **Wenbing Zhao**, “A robust multilayer extreme learning machine using kernel risk-sensitive loss criterion,” *International Journal of Machine Learning and Cybernetics*, vol.11, no.1, pp. 197-216.
- 35) X. Luo, C. Jiang, W. Wang, Y. Xu, J.-H. Wang, **Wenbing Zhao**. “User behavior prediction in social networks using weighted extreme learning machine with distribution optimization.” *Future Generation Computer Systems*, vol.93, pp. 1023-1035, April 2019.
- 36) X. Luo, J. Sun, L. Wang, W. Wang, **Wenbing Zhao**, J. Wu; J.-H. Wang, Z. Zhang, “Short-term Wind Speed Forecasting via Stacked Extreme Learning Machine with Generalized Correntropy,” *IEEE Transactions on Industrial Informatics*, vol.14, no.11, pp. 4963-4971, November 2018
- 37) M. Chen, Y. Li, X. Luo, L. Wang, and **Wenbing Zhao**, “A Novel Human Action Recognition Scheme for Smart Health Using Multilayer Extreme Learning Machine,” *IEEE Internet of Things Journal*, Vol.6, No. 2, April 2019, pp. 1410-1418.
- 38) S. Hiriyanna, M. F. Tedor, P. A. Stoddard-Dare and **W. Zhao**, Design and Development of a Web Application for Matching Drug Addiction Treatment Services with Substance Users, *Applied System Innovation*, vol.1, no.4, 47, November 2018.
- 39) **Wenbing Zhao**, J. Wu, P. Shi, and H. Wang, “Intelligent sensing and decision making in smart technologies,” *International Journal of Distributed Sensor Networks*, vol. 14, no. 11, 1550147718813754, November 2018.
- 40) X. Luo, Z. He, Z. Zhao, L. Wang, W. Wang, H. Ning, J.-H. Wang, **Wenbing Zhao**, and J. Zhang, “Resource Allocation in the Cognitive Radio Network-Aided Internet of Things for the Cyber-Physical-Social System: An Efficient Jaya Algorithm,” *Sensors*, vo.18, no.11, 3649, October 2018
- 41) W. Wang, X. Yu, X. Luo, L. Wang, L. Li, J. Kurths, **W. Zhao**, J. Xiao. “The stability of memristive multidirectional associative memory neural networks with time-varying delays in the leakage terms via sampled-data control,” *PLoS one*, vo.13, no.9, e0204002, September 2018.
- 42) D. Xue, X. Wang, J. Zhu, D. Davis, B. Wang, **W. Zhao**, Y. Peng, Y. Cheng. “An Adaptive Ensemble Approach to Ambient Intelligence Assisted People Search,” *Applied System Innovation*, vol.1, no.3, 33, September 2018.
- 43) **Wenbing Zhao**, L. Gao, and A. Liu. “Programming Foundations for Scientific Big Data Analytics,” *Scientific Programming*, vol. 2018, article ID 2707604, April 2018.
- 44) Tie Qiu, Ning Chen, Keqiu Li, Mohammed Atiquzzaman, and **Wenbing Zhao**. "How Can Heterogeneous Internet of Things Build our Future: A Survey." *IEEE Communications Surveys & Tutorials*, vol.20, no.3, pp. 2011-2027, July 2018.
- 45) Weiping Wang, Meiqi Wang, Xiong Luo, Lixiang Li, **Wenbing Zhao**, Linlin Liu, and Yuan Ping. "Passivity of memristive BAM neural networks with leakage and additive time-varying delays." *Modern Physics Letters B*, vol.32, no.4, 1850041, February 2018.

- 46) Weiping Wang, Meiqi Wang, Xiong Luo, Lixiang Li, and **Wenbing Zhao**, “Passivity of Memristive BAM Neural Networks with Probabilistic and Mixed Time-Varying Delays,” *Mathematical Problems in Engineering*, vol. 2018, Article ID 5830160, 25 pages, April 2018. doi:10.1155/2018/5830160.
- 47) Manman Yuan, Weiping Wang, Xiong Luo, Chao Ge, Lixiang Li, Jürgen Kurths, **Wenbing Zhao**, “Synchronization of a Class of Memristive Stochastic Bidirectional Associative Memory Neural Networks with Mixed Time-Varying Delays via Sampled-Data Control,” *Mathematical Problems in Engineering*, Volume 2018, Article ID 9126183, 24 pages, April 2018.
- 48) Luo X, Xu Y, Wang W, Yuan M, Ban X, Zhu Y, **Zhao W**. Towards Enhancing Stacked Extreme Learning Machine with Sparse Autoencoder by Correntropy. *Journal of the Franklin Institute*, vol.355, no.4, pp. 1945-1966, March 2018.
- 49) M Yuan, W Wang, X Luo, L Liu, **Wenbing Zhao**, “Finite-time anti-synchronization of memristive stochastic BAM neural networks with probabilistic time-varying delays,” *Chaos, Solitons & Fractals* vol.113, pp. 244-260, August 2018.
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- 2) The 2nd International Conference on Detection Technology and Intelligence System, Tianjin, China, October 14-16, 2022. Delivered online.
- 3) The 2nd International Conference on Digital Economy, Management and Education, Luoyang, China, April 22-24, 2022. Delivered online.
- 4) The 4th International Conference on Blockchain Technology, Shanghai, China, March 25-27, 2022. Delivered online.
- 5) The 3rd International Conference on Pattern Recognition and Intelligent Systems, Bangkok, Thailand, July 28 – 30, 2021. Delivered online.

- 6) The 6th International Workshop on Pattern Recognition (IWPR 2021), Beijing, China, June 25-27, 2021. Delivered online.
- 7) The 3rd International Conference on Blockchain Technology, Shanghai, China, March 26-28, 2021. Delivered online
- 8) International Conference on Pattern Recognition and Intelligent Systems, Athens, Greece, July 30 – August 2, 2020.
- 9) The 2nd International Conference on Blockchain Technology, Hilo, Hawaii, USA, March 12-14, 2020.
- 10) The 3rd International Conference on Knowledge Innovation and Invention, Busan, South Korea, July 18-21, 2020
- 11) The 3rd International Conference on Vision, Image and Signal Processing, Vancouver, Canada, August 26-29, 2019.
- 12) “Data Science in Professional Baseball: A Preliminary Study.” The 2nd International Conference on Computing and Big Data, Taichung Software Park, Taiwan, October 18-20, 2019.
- 13) “Developing Smart and Connected Solutions for Healthcare and Medicine.” IEEE Smart World Congress, De Montford University, Leicester, UK, August 19-23, 2019, IEEE.
- 14) “Blockchain: A Disruptive Solution for Building Consensus and Trust.” The 2nd IEEE International Conference on Knowledge Innovation and Invention 2019, Seoul, South Korea, July 13-16, 2019
- 15) International Conference on Blockchain Technology, Honolulu, Hawaii, USA, March 15-18, 2019.
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- 20) Enhancing Communication with Students with a Teaching Method Based on Topical Guide Objectives, the International Conference on Digital Technology in Education, Taipei, Taiwan, August 6-8, 2017.
- 21) Enriching Engineering Curriculum with Courses on Cutting-Edge Technologies, the 4th International Conference on Behaviours, Education and Psychology, San Francisco, October 23-25, 2016.

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- 1) Public Blockchain: Theoretical Foundation and Applications, IEEE 1st Global Emerging Technology Blockchain Forum: Blockchain & Beyond, November 11, 2022. Delivered online.
- 2) Public Blockchain: Theoretical Foundation and Applications, IEEE International Conference on Communications, 16–20 May 2022, Seoul, South Korea, Hybrid: In-Person and Virtual Conference, Intelligent Connectivity for Smart World. Delivered online. <https://icc2022.ieee-icc.org/program/tutorials>
- 3) Public Blockchain: Theoretical Foundation and Applications, IEEE Consumer Communications & Networking Conference, January 8-11, 2022, Virtual Conference. Delivered online. <https://ccnc2022.ieee-ccnc.org/program/tutorials>
- 4) Blockchain-Enabled Cyber-Physical Systems, IEEE SMC 2021, October 17-20, 2021, Virtual Conference. Delivered online.

- 5) On Proof of Stake in Public Blockchain, IEEE International Conference on Blockchain and Cryptocurrency, May 3-6, 2021, Virtual Conference. Delivered online. <https://icbc2021.ieee-icbc.org/program/tutorials>
- 6) Blockchain: A Disruptive Solution for Building Consensus and Trust, IEEE Smart World Congress, De Montford University, Leicester, UK, August 19-23, 2019, IEEE.
- 7) Healthcare Prediction and Intervention, IEEE SMC 2018, Miyazaki, Japan, October 7, 2018. <http://www.smc2018.org/tutorials/tutorial5/>
- 8) Building Human-Centered Systems with Depth Cameras and Wearable Sensors, IEEE Cyber Science Congress 2017, Orlando, FL, Nov. 6, 2017. <http://cyber-science.org/2017/tutorial.html>
- 9) Building Human-Centered Systems with Depth Cameras and Wearable Sensors, IEEE SMC 2017, Banff, Canada, October 5, 2017. <http://www.smc2017.org/?q=tutorial>
- 10) Human Motion Tracking and Recognition with Microsoft Kinect, The 12th IEEE International Conference on Ubiquitous Intelligence and Computing, August 10-14, 2015, Beijing, China. (tutorial announcement page: http://cybermatics.org/SWC2015/Keynotes/Tutorial_WenbingZhao.htm)
- 11) Building Dependable Distributed Systems, The 2015 World Congress in Computer Science, Computer Engineering and Applied Computing, July 27-30, Las Vegas, NV. (tutorial announcement page: http://www.world-academy-of-science.org/worldcomp15/ws/tutorials/tutorial_zhao1)
- 12) Human Motion Tracking and Recognition with Microsoft Kinect, The 2015 World Congress in Computer Science, Computer Engineering and Applied Computing, July 27-30, Las Vegas, NV. (tutorial announcement page: http://www.world-academy-of-science.org/worldcomp15/ws/tutorials/tutorial_zhao2)

INVITED TALKS

- 1) Public Blockchain: Theoretical Foundation and Applications, Kent State University, 2022/4/20
- 2) Towards Human Activity Recognition and Objective Performance Assessment in Human Patient Simulation, Beijing University of Chemical Technology, 2021/7/13
- 3) Direct Acyclic Graph-Based Distributed Ledger, Hangzhou Dianzi University, 2019/12/12
- 4) On Consensus of Public Blockchains, Shanghai Jiaotong University, 2019/12/9
- 5) Direct Acyclic Graph-Based Distributed Ledger, Shanghai Jiaotong University, 2019/12/9
- 6) Blockchain: A Disruptive Solution for Building Consensus and Trust, Sichuan University, 2019/7/25
- 7) Direct Acyclic Graph-Based Distributed Ledger, Nanjiang University of Post and Telecommunications, 2019/7/8
- 8) Intelligent Sensing with Blockchain: Principles and Applications in IoT, University of Science and Technology Beijing (USTB), Beijing, China, 2019/3/24
- 9) Blockchain: A Disruptive Solution for Building Consensus and Trust, Shanghai University, 2018/12/20
- 10) Blockchain: A Disruptive Solution for Building Consensus and Trust, Shanghai Jiaotong University, 2018/12/19
- 11) Blockchain: A Disruptive Solution for Building Consensus and Trust, Nanjiang University of Post and Telecommunications, 2018/12/21
- 12) Developing Smart and Connected Solutions for Healthcare and Medicine, Beijing University of Chemical Technology, 2018/12/25
- 13) Developing Smart and Connected Solutions for Healthcare and Medicine, Beihang University, 2018/12/27

- 14) Reducing Lower-Back Injuries with a Privacy-Aware Compliance Tracking System, Institute of Automation, Chinese Academy of Sciences, 2018/12/25
- 15) Developing Smart and Connected Solutions for Healthcare and Medicine, Xi'an University of Post and Telecommunications, 2018/9/26
- 16) Developing Smart and Connected Solutions for Healthcare and Medicine, Tianjin University, 2018/7/29
- 17) Reducing Lower-Back Injuries with a Privacy-Aware Compliance Tracking System, Shanghai University, 2018/4/23
- 18) Reducing Lower-Back Injuries with a Privacy-Aware Compliance Tracking System, Nanjing University of Posts and telecommunications, 2018/4/22
- 19) Introduction to Blockchain, University of Science and Technology Beijing (USTB), Beijing, China, 2017/12/22
- 20) Building Human-Centered Systems with Depth Cameras and Wearable Sensors, Beijing University of Chemical Technology, 2017/12/21
- 21) Human-Centered Research with Microsoft Kinect, Beijing Wuzi University, Beijing, China, 3/2017.
- 22) How to Write Good Research Papers, School of Computer and Communication Engineering, University of Science and Technology Beijing (USTB), Beijing, China, 3/2017.
- 23) Human-Centered Research with Microsoft Kinect, School of Computer and Communication Engineering, University of Science and Technology Beijing (USTB), Beijing, China, 11/2015.
- 24) Human Motion Tracking and Recognition with Microsoft Kinect, Department of Computer Science, Kent State University, 9/2015

PROFESSIONAL SERVICES

Panelist

- Panelist for National Science Foundation, 2008, 2009, 2010, 2015, 2016, 2017, 2018, 2019, 2020, 2021.

Professional Society Leadership

- Vice Chair, IEEE Smart World Technical Committee Task Force on "User-Centred Smart Systems" (<http://www.cybermatics.org/TaskForce/TaskForceUser-CenteredSmartSystems.html>)

Associate/Academic Editor

- *IEEE Access*
- *Computers, MDPI*
- *PeerJ Computer Science*

Guest Editor

- Sensors, special issue "Smart Internet of Things (IoT)" (https://www.mdpi.com/journal/sensors/special_issues/23D16JAG1N), submission deadline: 6/30/2023.
- Sensors, special issue "Mobile Computing for Smart Health" (https://www.mdpi.com/journal/sensors/special_issues/MC_SH), submission deadline: 12/25/2022.
- PeerJ Computer Science, Special Issue "Smart Cities: Enabling Technologies and Applications" (<https://peerj.com/special-issues/104-sc-tech-app>), Submission deadline: 11/11/2022

- *CMES-Computer Modeling in Engineering & Sciences, Special Issue "Computer Modeling for Smart Cities Applications"* (https://www.techscience.com/CMES/special_detail/smart-cities-applications), Submission deadline: 1/31/2023
- *ACM Transactions on Internet Technology, Special Issue on Edge/Fog Computing for Infectious Disease Intelligence* (https://dl.acm.org/pb-assets/static_journal_pages/toit/pdf/ACM-TOIT-CFP-EdgeFog-InfectiousDisease-1595934421750.pdf)
- *Mathematical Problems in Engineering, Special Issue on Mathematical Problems of Applied System Innovations for IoT Applications* (<https://www.hindawi.com/journals/mpe/si/597960/>), submission deadline 5/21/2021
- *Frontiers Journals (Frontiers in Genetics, Frontiers in Public Health, Frontiers in Computer Science), Research Topic on Machine Learning Used in Biomedical Computing and Intelligence Healthcare – Volume II* (<https://www.frontiersin.org/research-topics/18738/machine-learning-used-in-biomedical-computing-and-intelligence-healthcare---volume-ii>) Submission deadline: 8/20/2021
- *Scientific Programming (Hindawi), Special Issue on Scientific Programming Towards a Smart World 2021* (<https://www.hindawi.com/journals/sp/si/213168/>) Submission deadline 8/13/2021
- *IEEE Journal of Biomedical and Health Informatics, Special Issue on Multi-modal Computing for Biomedical Intelligence Systems* (<https://www.embs.org/jbhi/j-bhi-special-issue-on-multi-modal-computing-for-biomedical-intelligence-systems/>) Submission deadline 1/31/2021
- *Computer Networks (Elsevier), Special Issue on Recent Advances in AI-based Mobile Multimedia Computing for Data-Smart Processing* (<https://www.journals.elsevier.com/computer-networks/call-for-papers/recent-advances-in-ai-based-mobile-multimedia-computing>)
- *Physical Communication (Elsevier), Special Issue on Advanced Technologies for Multi-access Edge Computing* (<https://www.journals.elsevier.com/physical-communication/call-for-papers/advanced-technologies-for-multi-access-edge-computing>)
- *Journal of Biomedical Semantics (BMC), Special issue: Intelligence Computing for Challenging Clinical Data* (<https://jbiomedsem.biomedcentral.com/iccd2020>)
- *Security and Communication Networks (Hindawi), Special Issue Theory and Engineering Practice for Security and Privacy of Edge Computing* (<https://www.hindawi.com/journals/scn/si/354069/>)
- *Frontiers Journals (Frontiers in Genetics, Frontiers in Public Health, Frontiers in Computer Science), Research Topic on Machine Learning Used in Biomedical Computing and Intelligence Healthcare* (<https://www.frontiersin.org/research-topics/12727/machine-learning-used-in-biomedical-computing-and-intelligence-healthcare>)
- *Mathematical Problems in Engineering, Special Issue on Mathematical Problems of Applied System Innovations for IoT Applications* (<https://www.hindawi.com/journals/mpe/si/597960/>)
- *Computer Science and Information Systems, Special Issue on Edge Computing* (<http://www.comsis.org/cfp2.php>)
- *Journal of Ambient Intelligence and Smart Environments, Special Issue on Location-aware Computing to Mobile Services Recommendation: Theory and Practice* (https://www.iospress.nl/wp-content/uploads/2020/03/Proposal-HHGAO_revAnd.pdf)
- *Applied Sciences (MDPI), Special Issue Innovation and Application of Intelligent System* (https://www.mdpi.com/journal/applsci/special_issues/intelligent_systems_ii)
- *Applied Sciences (MDPI), Special Issue Recent Developments in Smart Healthcare* (https://www.mdpi.com/journal/applsci/special_issues/Developments_Smart_Healthcare)
- *Applied Sciences (MDPI), Special Issue Intelligent System Innovation* (https://www.mdpi.com/journal/applsci/special_issues/intelligent_system_innovation)

- *Computers (MDPI), Special Issue Blockchain-Based Systems*
(https://www.mdpi.com/journal/computers/special_issues/Blockchain_Systems)
- *Electronics (MDPI), Special Issue Intelligent Electronic Devices*
(https://www.mdpi.com/journal/electronics/special_issues/Intelligent_Electronic_Devices)
- *Materials (MDPI), Special Issue Advanced Materials on Electrical and Mechanical Application*
(https://www.mdpi.com/journal/materials/special_issues/electr_mech)
- *Computers (MDPI), Special Issue Computer Technologies for Human-Centered Cyber World*
(https://www.mdpi.com/journal/computers/special_issues/Human_centered)
- *Computers (MDPI), Special Issue Computer Technologies in Personalized Medicine and Healthcare* (https://www.mdpi.com/journal/computers/special_issues/Computer_Technologies)
- *Computers (MDPI), Special Issue Vision, Image and Signal Processing*
(https://www.mdpi.com/journal/computers/special_issues/ICVISIP_2018)
- *Electronics (MDPI), Special Issue Sensing and Signal Processing in Smart Healthcare*
(https://www.mdpi.com/journal/electronics/special_issues/sensing_smart_healthcare)
- *Applied System Innovation (MDPI), Special Issue Healthcare System Innovation*
(https://www.mdpi.com/journal/asi/special_issues/healthcare_system_innovation)
- *Applied Sciences (MDPI), Special Issue Smart Healthcare*
(https://www.mdpi.com/journal/applsci/special_issues/smart_healthcare)
- *Scientific Programming (Hindawi), Special Issue on Scientific Programming Towards a Smart World 2020* (<https://www.hindawi.com/journals/sp/si/545478/>)
- *Scientific Programming (Hindawi), Special Issue on Scientific Programming towards a Smart World* (<https://www.hindawi.com/journals/sp/si/548029/>)
- *Journal of Distributed Sensor Networks (Sage), Special Collection on Internet of Things in Smart Healthcare: Applications and Research Challenges*
(<https://journals.sagepub.com/page/dsn/collections/special-issues/internet-of-things-in-smart-healthcare>)
- *Journal of Distributed Sensor Networks (Sage), Special Collection on Intelligent Sensing and Decision Making in Smart Technologies*
(<https://journals.sagepub.com/page/dsn/collections/special-issues/intelligent-sensing>)
- *IEEE Access, Special Section on Blockchain Technology: Principles and Applications*
(<https://ieeaccess.ieee.org/open-special-sections/blockchain-technology-principles-and-applications/>) Submission deadline: 1/31/2021
- *IEEE Access, Special Section on Data-Enabled Intelligence for Digital Health*
(<https://ieeaccess.ieee.org/closed-special-sections/data-enabled-intelligence-for-digital-health/>)
- *IEEE Access, Special Section on Mobile Service Computing with Internet of Things*
(<https://ieeaccess.ieee.org/closed-special-sections/mobile-service-computing-with-internet-of-things/>)
- *IEEE Access, Special Section on Human-Centered Smart Systems and Technologies*
(<https://ieeaccess.ieee.org/closed-special-sections/human-centered-smart-systems-technologies/>)

Editorial Board Member

- *Internal Journal of Parallel, Emergent and Distributed Systems, Taylor & Francis*
- *Applied System Innovation, MDPI*
- *Sensors, MDPI*
- *International Journal of Handheld Computing Research, IGI Global*

- *International Journal of Performability Engineering*, Rams Consultants
- *International Journal of Distributed Systems and Technologies*, IGI Global
- *International Journal of Web Science and Engineering*, Science & Engineering Research Support Society

Conference Organizing Committee

- Conference Chair, The 2nd International Conference on Detection Technology and Intelligence System, Tianjin, China, October 14-16, 2022
- Conference General Chair, The 3rd International Conference on Big Data Economy and Information Management, Zhengzhou, China, December 2-3, 2022
- Special Issue Chair, IEEE International Conference on Smart Internet of Things, Beijing, China, August 19-21, 2022.
- General Chair, The 4th International Conference on Pattern Recognition and Intelligent Systems, Wuhan, China, July 29-31, 2022
- Conference Chair, The 2nd International Conference on Digital Economy, Management and Education, Luoyang, China, April 22-24, 2022
- Conference Co-Chair, The 4th International Conference on Blockchain Technology, Shanghai, China, March 25-27, 2022.
- Program Chair, IEEE International Conference on Smart Internet of Things, Beijing, China, August 13-15, 2021.
- Conference Chair, The 3rd International Conference on Blockchain Technology, Shanghai, China, March 26-28, 2021. <http://www.icbct.org/com.html>
- General Chair, The 3rd International Conference on Pattern Recognition and Intelligent Systems, Bangkok, Thailand, July 28-30, 2021
- Publication Chair, IEEE International Conference on Smart Internet of Things, Beijing, China, August 14-16, 2020.
- Program Chair, International Conference on Pattern Recognition and Intelligent Systems, Athens, Greece, April 16-19, 2020. <http://pris2020.org/com.html>
- Program Chair, The 2nd International Conference on Blockchain Technology, Hilo, Hawaii, USA, March 12-14, 2020. <http://www.icbct.org/com.html>
- Program Co-Chairs, International Conference on Cyber-Living, Cyber-Syndrome and Cyber-Health 2019 (CyberLife 2019), Beijing, China, December 16-18, 2019.
- Program Chair, International Conference on Blockchain Technology, Honolulu, Hawaii, USA, March 15-18, 2019.
- Program Chair, the 2nd International Conference on Computing and Big Data, Taichung Software Park, Taiwan, October 18-20, 2019.
- General Chair, the 19th IEEE International Conference on Scalable Computing and Communications (ScalCom 2019), Leicester, UK, August 19-23, 2019. <http://www.smart-world.org/2019/scalcom/cmt.php>
- Workshop Chair, IEEE International Conference on Smart Internet of Things, Tianjin, China, August 9-11, 2019
- Program Chair, International Conference on Blockchain Technology, Honolulu, Hawaii, USA, March 15-18, 2019. <http://www.icbct.org/com.html>

- Program Chair, the IEEE International Conference on Smart Internet of Things (SmartIoT 2018), Xi'an, China, August 17-19, 2018.
- Program Co-Chair, the 3rd IEEE Cyber Science and Technology Congress, Athens, Greece, August 12-15, 2018.
- Program Chair, the International Conference on Computing and Big Data (ICCBD 2018), College of Charleston, Charleston, South Carolina, USA, September 08-10, 2018.
- Conference Chair, the 2018 International Symposium on Computer Science and Intelligent Controls, Stockholm, Sweden, September 21-23, 2018.
- Conference Chair, the 2018 International Conference on Vision, Image and Signal Processing, Las Vegas, NV, USA, August 27-29, 2018.
- Program Chair, the 2018 9th International Conference on E-Education, E-Business, E-Management and E-Learning, San Diego, USA, Jan 11-13.
- Program Chair, the 13th EAI International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness, December 15-17, 2017, Dalian, People's Republic of China
- Conference Chair, the 2017 International Symposium on Computer Science and Intelligent Controls, Budapest, Hungary, October 20-22, 2017.
- Conference General Chair, the 2017 International Conference on Vision, Image and Signal Processing, Osaka, Japan, September 22-24, 2017.
- Conference Chair, the 2017 International Conference on Digital Technology in Education, Taipei, Taiwan, August 6-8, 2017.
- Application Track Chair, the 6th IEEE International Conference on AI & Mobile Services, June 25-30, 2017, Honolulu, Hawaii, USA.
- Conference Chair, the 2016 4th International Conference on Behaviours Education and Psychology, San Francisco, CA, USA, October 23-25, 2016.
- Program Chair, the 2016 IEEE Smart World Congress, Toulouse, France, July 18-21, 2016
- Publicity Chair, Future Technologies Conference (FTC) 2016, San Francisco, USA, December 6-7, 2016
- Special Session Chair (on Cybermatics for Cyber-Enabled Systems, Technologies, and Applications), the 2018 IEEE International Conference on Systems, Man, and Cybernetics, Miyazaki, Japan, October 7-10, 2018 (<http://www.smc2018.org/approved-special-sessions/c24cybermatics-for-cyber-enabled-systems-technologies-and-applications-cyber-esta/>).
- Special Session Chair (on Cybermatics for Cyber-Enabled Systems, Technologies, and Applications), the 2017 IEEE International Conference on Systems, Man, and Cybernetics, Banff, Canada, October 5-8, 2018 (<http://www.smc2017.org/files/SS-CFPs/CFP-SS-Cybermatics-forCESTA.pdf>).
- Special Session Co-chair (on Cybermatics for Cyber-Enabled Worlds), the 2016 IEEE International Conference on Systems, Man, and Cybernetics, Budapest, Hungary, October 9-12, 2016
- Special Track Chair (on healthcare), the 4th IEEE International Conference on Mobile Services, New York, NY, June 27-July 2, 2015

Session Chair for Conferences/Workshops

- The 2017 IEEE Cyber Science Congress 2017, Orlando, FL, Nov. 5-10, 2017.
- IEEE International Conference on Systems, Man, and Cybernetics, Banff, Canada, October 5-8, 2017

- The 4th IEEE International Conference on Mobile Services, New York, NY, June 27-July 2, 2015
- The 12th IEEE International Conference on Dependable, Autonomic and Secure Computing, Dalian, China, August 24-27, 2014
- The International Conference on Cloud Computing, Miami, FL, July 2010
- The International Conference on Services Computing, Honolulu, Hawaii, July 2008
- The Middleware for Web Services Workshop, Annapolis, MD, October 2007

Program Committee Member for Conferences/Workshops

- [1] The 19th IEEE International Conference on Ubiquitous Intelligence and Computing, December 15-18, 2022, Haikou, China
- [2] The 20th IEEE International Conference on Trust, Security and Privacy in Computing and Communications, August 18-20, 2021, Shenyang, China
- [3] The 2017 IEEE Cyber Science and Technology Congress, Orlando, FL, November 6-10, 2017.
- [4] IEEE International Conference on Systems, Man, and Cybernetics, Banff, Canada, October 5-8, 2017
- [5] The 10th IEEE International Conference on Internet of Things (iThings-2017), 21-23 June 2017, Exeter, UK.
- [6] The 11th International Conference on Frontier of Computer Science and Technology (FCST2017), 21-23 June 2017, Exeter, UK.
- [7] The IEEE International Conference on Mobile Services, 2015, 2016
- [8] The International Conference on Information Systems Security and Privacy, 2015 and 2016
- [9] The 5th IEEE International Conference on Big Data and Cloud Computing (BDCloud 2015)
- [10] The 9th International Conference on Frontier of Computer Science and Technology (FCST 2015)
- [11] The 12th IEEE International Conference on Dependable, Autonomic and Secure Computing, Dalian, China, August 24-27, 2014
- [12] IEEE 2nd International Conference on Mobile Services, 2013
- [13] The International Conference on Intensive Applications and Services (INTENSIVE), 2012, 2013.
- [14] The International Conference on Emerging Security Information, Systems and Technologies (Secureware), 2012-2016
- [15] The International Conference on Advanced Engineering Computing and Applications in Sciences (ADVCOMP), 2013-2016
- [16] The International Conference on Advanced Geographic Information Systems, Applications, and Services (GEOProcessing), 2010-2016
- [17] The International Conferences on Advanced Service Computing (SERVICE COMPUTATION), 2011-2016
- [18] International Conference on Web Science and Engineering, 2012.
- [19] The IEEE International Conference on Web Services, 2011, 2012.
- [20] The 9th IEEE International Conference on Dependable, Autonomic and Secure Computing (DASC 2011), 2011.
- [21] The 3rd IEEE International Workshop on Cyberspace Safety and Security (CSS 2011), 2011.
- [22] The 25th ACM Symposium on Applied Computing, Sierre, Switzerland, March 22-26, 2010.

- [23] The 2nd International Conference on Advanced Geographic Information Systems, Applications, and Services, St. Maarten, Netherlands Antilles, Feb. 10-15, 2010.
- [24] The 2nd International Conference on Resource Intensive Applications and Services, Cancun, Mexico, March 7-12, 2010.
- [25] Northeast Ohio Networking Workshop, Kent State University, OH, June 3, 2009, as Program Chair
- [26] The 8th IEEE International Conference on Dependable, Autonomic and Secure Computing, Chengdu, China, Dec. 12-14, 2009.
- [27] The 7th IFIP Workshop on Software Technologies for Future Embedded and Ubiquitous Systems, Newport Beach, CA, Nov. 16-18, 2009.
- [28] The 2009 Middleware for Web Services Workshop, Auckland, New Zealand, Aug 31 – Sept. 4, 2009.
- [29] The 1st International Conference on Advanced Service Computing, Athens, Greece, Nov. 15-20, 2009.
- [30] The 3rd International Conference on Network and System Security (NSS 2009), Gold Coast, Australia, October 19-21, 2009
- [31] The 2nd IEEE International Workshop on Cyberspace Safety and Security (CSS 2009), Chendu and Jiuzhai Valley, China, August 2009.
- [32] The 2009 International Workshop on Ubiquitous Computing Security (UC-Sec 2009), Las Vegas, July 13-16, 2009.
- [33] The 1st International Conference on Intensive Applications and Services (INTENSIVE 2009), Valencia, Spain, April 21-25, 2009
- [34] The 6th International on Service-Oriented Computing, Sydney, Australia, December 2008.
- [35] The 14th IEEE International Conference on Parallel and Distributed Systems, Melbourne, Victoria, December 2008.
- [36] The IEEE International Workshop on Cyberspace Safety and Security, Sydney, Australia, December 2008.
- [37] The 2008 Middleware for Web Services Workshop, Munich, Germany, September 2008.
- [38] AQuSerM: Advances in Quality of Service Management Workshop, Germany, September 2008.
- [39] The International Conference on Advanced Geographic Information Systems & Web Services, Cancun, February 1-6, 2009.
- [40] The 5th International Conference on Service-Oriented Computing, Vienna, Austria, September 2007
- [41] The 3rd International Conference on Embedded Software and Systems (ICCESS 2007), Daegu, South Korea, May 14-16, 2007.
- [42] The 2nd IEEE International Workshop on Heterogeneous Wireless Networks: Resource Management and QoS, Las Vegas, NV, January 2007.
- [43] The 1st IEEE International Workshop on eSafety and Convergence of Heterogeneous Wireless Networks, Phoenix, Arizona, April, 2006.
- [44] Information Resources Management Association Conference 2007

Reviewer for Technical Journals and Books

- IEEE Transactions on Computers
- IEEE Transactions on Dependable and Secure Computing

- IEEE Transactions on Parallel and Distributed Systems
- IEEE Transactions on Knowledge and Data Engineering
- IEEE Transactions on Services Computing
- IEEE Transactions on Human Machine Systems
- IEEE Transactions on Vehicular Technology
- IEEE Transactions on Industrial Informatics
- IEEE Internet of Things Journal
- IEEE Wireless Communications Magazine
- IEEE Internet Computing
- IEEE Sensors
- ACM Transactions on the Web
- Sensors, Applied Sciences, Multimodal Technologies and Interaction, International Journal of Environmental Research and Public Health, Future Internet, Computers, Applied System Innovation (MDPI)
- Digital Communications and Networks
- IET Software
- Computer Methods and Programs in Biomedicine, Elsevier
- Computers in Biology and Medicine, Elsevier
- Journal of Systems and Software, Elsevier
- The Computers and Electrical Engineering Journal, Elsevier
- Frontiers of Computer Science, Springer
- IBM Systems Journal
- Journal of Computer Science
- International Journal of Simulation and Process Modelling
- International Journal of Communication Systems
- International Journal of Performability Engineering – Short Communications
- International Journal of Foundations of Computer Science
- Encyclopedia of E-Collaboration
- Encyclopedia of Information Science and Technology, 2nd Edition
- Encyclopedia of Information Ethics and Security

Examiner for Tenure Promotion

- Lawrence Technological University, MI, USA
- College of Technological Studies, Kuwait
- University of Michigan, Dearborn

Reviewer for Research Proposals

- Natural Sciences and Engineering Research Council of Canada

- The New University Researchers Start-up Program of Fonds de recherche du Québec – Nature et technologies
- Kentucky Science & Engineering Foundation (program KSEF-06-RDE-009) in 2006 and 2009

Examiner for Ph.D. Dissertation

- School of Reliability and Systems Engineering, Beihang University, China, 2022
- Beijing University of Chemical Technology, China, 2022
- McGill University, Canada, 2008.
- University of Detroit Mercy, 2015.
- Dalhousie University, Halifax, Nova Scotia, Canada, 2018

Departmental Assignments

- Chair, Graduate Program Committee, Department of Electrical and Computer Engineering, September 2014 to present
- Chair, Graduate Recruitment and Admission Committee, Department of Electrical and Computer Engineering, 8/2018 to 8/2019
- Director, MSEE, September 2014 to 8/2018
- ABET Coordinator, BSCS, September 2014 to August 2019
- Faculty Secretary, 8/2013 – 5/2015; 8/2009-5/2011
- Committee member, Program Review Committee (with Drs, Yu, Sridhar, and Hizlan), 9/2013 to 5/2014
- Committee member, Undergraduate Program Committee (other committee members: Pong Chu, Lili Dong, and Yau), Department of Electrical and Computer Engineering, 8/2013 to 9/2014
- Committee member, Search Committee for student counselor, summer 2013 (with Dr. Xiong and Ms. Adrienne Fox)
- Chair, Undergraduate Program Committee (other committee members: Ana Stankovic and John Donoghue), Department of Electrical and Computer Engineering, 2005-2006
- Committee member, Graduate Program Committee (other committee members: Chansu Yu/Dan Simon – Chair, Ana Stankovic), Department of Electrical and Computer Engineering, 2006-2011
- Committee member, Ad hoc Committee on Student Code of Conduct (other committee members: Dan Simon – Chair, Murad Hizlan), Department of Electrical and Computer Engineering, 2006.
- Committee member, Faculty Search Committee (other committee members: Chansu Yu – Chair, Peng Chu), Department of Electrical and Computer Engineering, 2005-2006
- Committee member, Staff Search Committee for Computer Systems Manager (other committee members: Yongjian Fu – Chair, Chansu Yu), Department of Electrical and Computer Engineering, 2006

College Assignments

- College Peer Review Committee, 8/2017 to 5/2021
- College Petition Committee, 9/2016 to ?
- College Program Review Committee, 9/2014 to ?
- College Ad-Hoc Committee on Workload
- College Faculty Search Committee on IoT, 3/2018 to present
- Graduate Affairs Committee, 9/2014 to 8/2018, chair 9/2017 – 8/2018

- College of Engineering Search Committee for IoT, 2018
- College of Engineering Dean Search Committee, 2008-2009.
- Faculty Senate Representative, 8/2015 to 12/2017

University Assignments

- Faculty Senator, 8/2021-present
- University Labs and Credit Hours Committee, 3/2015 to ???
- Library Committee, 8/2015 to 4/2018, chair 8/2017-4/2018
- University Space Committee, 8/2017 to present
- Grade Dispute Committee, 8/2017 to present
- Ad-Hoc Committee on University Teaching Council, 8/2017 to ?
- Ad-Hoc Committee on Blockchain, 5/2018 to present
- Graduate College Program Review Committee, 8/2014 to ?
- Academic Technology Committee, 8/2013 to 5/2015
- Graduate Council, 2011-2012
- University Curriculum Committee, 2011-12/2012
- Graduate Faculty Review Committee, 2008-2010
- Computational Services Committee, 2008-2010

PROFESSIONAL AFFILIATIONS

- IEEE (Senior Member), IEEE SMC, IEEE CIS, IEEE CS
- International Economics Development and Research Center (Senior Member)

GRADUATE THESIS/DISSERTATION STUDENTS SUPERVISED

- Honglei Zhang. Defended his Doctor of Engineering dissertation in May 2014. Dissertation title: "Byzantine fault tolerance distributed computing"
- Hua Chai. Defended her Doctor of Engineering dissertation in December 2014. Dissertation title: "Application-Aware Byzantine fault tolerance." Winner of the CSU Outstanding Dissertation Award.
- Brian Krupp. Defended his Doctor of Engineering dissertation in May 2015. Dissertation title: "Enhancing Security and Privacy for Mobile Systems"
- Mamdouh Babi. Defended his dissertation on April 30, 2017. Dissertation title: "Byzantine Fault Tolerant Collaborative Editing"
- Roanna Lun. Defended her dissertation April 9, 2018. Dissertation title: "Human Activity Tracking and Recognition Using Kinect Sensor"
- Jonathan Gurary. Defended his dissertation in Feb 2018. Dissertation title: "Improving the Security of Mobile Devices Through Multi-Dimensional and Analog Authentication"
- Deepa Adinarayanan. Defended her MSEE thesis on August 10, 2018. Thesis title: "Real-Time Assessment and Visual Feedback to Rehabilitation Patients with Inertial Sensors"

- Elham Akbari. Defended her MSSE thesis on August 10, 2018. Thesis title: "Blockchain for Voting: A Quantitative Study"
- Akshat Hans. Defended his MSEE thesis on June 21, 2018. Thesis title: "Continuous Human Activity Tracking over a Large Area with Multiple Kinect Sensors"
- Sachin Hiriyanna. Defended his MSSE thesis on May 7, 2018. Thesis title: "Drughelp.care - A Web Application for the Discovery of Drug Addiction Treatment Facilities"
- Hua Chai. Defended her MSEE thesis in December 2009. Thesis title: "Performance Engineering of Fault Tolerance Systems"
- Honglei Zhang. Defended his MSEE thesis in December 2007. Thesis title: "Byzantine Fault Tolerant Coordination for Web Services Atomic Transactions"
- Hai Feng. Defended his MSEE thesis in May 2015. Thesis title: "A Kinect-Based Rehabilitation Exercise Monitoring System"
- Srikanth Dropati. Defended his MSSE thesis in June 2010. Thesis title: "A fault tolerance framework for Web services"
- Bo Chen. Defended his MSEE thesis in December 2008. Thesis title: "Byzantine fault tolerance for nondeterministic applications"
- Maulik Bhatt. Defended his MSEE thesis in June 2006. Thesis title: "Reliable multicasting and ordering for wireless networks"