# CONG WANG (王聪)

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# **EDUCATION EXPERIENCE**

Sept. 2017-	Doctor of Philosophy, Xidian University, China
Jun. 2021	Supervisor: Profs. Mengchu Zhou (IEEE/NAI Fellow) & Zhiwu Li (IEEE Fellow)
Sept. 2014– Jun. 2017	Master of Science, Mathematics, Hohai University, China Supervisor: Prof. Jianbin Yang
Sept. 2010-	Bachelor of Engineering, Automation, Hohai University, China
Jun. 2014	Supervisor: Prof. Yuncan Xue

# RESEARCH EXPERIENCE

May 2020– Nov. 2020	Visiting Ph.D. Student, Department of Electrical and Computer Engineering,
NOV. 2020	National University of Singapore (NUS), Singapore Co-advisor: Prof. Shuzhi Sam Ge (IEEE/IFAC Fellow)
Oct. 2019– Apr. 2020	Research Assistant, School of Computer Science and Engineering, Nanyang Technological University (NTU), Singapore Co-advisor: Dr. Jun Zhao
Mar. 2019– Jun. 2019	Visiting Ph.D. Student, Department of Electrical and Computer Engineering, University of Alberta (UA), Canada Co-advisor: Prof. Witold Pedrycz (IEEE Fellow)

# PROFESSION EXPERIENCE

Dec. 2022-	Associate Professor, School of Artificial Intelligence, OPtics and ElectroNics
Present	Northwestern Polytechnical University (NWPU), China
Jul. 2021-	Post-doctoral Fellow, School of Artificial Intelligence, OPtics and ElectroNics
Apr. 2023	Northwestern Polytechnical University (NWPU), China
	Co-advisor: Prof. Xuelong Li (IEEE/ACM/AAAI/IAPR Fellow)

# **RESEARCH INTERESTS**

- Information Computation
- Fuzzy Theory and Its Applications
- Wavelet Analysis and Its Applications
- Pattern Recognition and Image Processing
- 3D Medical Image Analysis

RESEARCH Jan. 2023–	I PROJECTS/PROGRAMS  Host (1/5), Grant No. 2022ZD0160604, Amount: 500,000 RMB
Dec. 2027	National Key Research and Development Program of China
May 2023– May 2025	<b>Host (1/1),</b> Grant No. HZKY20220537, Amount: 50,000 RMB Chunhui Program for the Cooperative Scientific Research of State Education Ministry, China
May 2021– Apr. 2023	<b>Host</b> (1/1), Grant No. BX2021249, Amount: 630,000 RMB China National Postdoctoral Program for Innovative Talents
Jan. 2019– Dec. 2019	<b>Host</b> (1/1), Grant No. 2018CASTQNJL42, Amount: 50,000 RMB Excellent Chinese and Foreign Youth Exchange Program of the China Association for Science and Technology
Mar. 2022– Dec. 2022	<b>Major Participant (2/4),</b> Grant No. BYFT-WDZC-22046, Amount: 460,000 RMB Horizontal Projects of Aircraft Strength Research Institute of China
May 2015– Apr. 2016	Major Participant (4/4), Amount: 10,000 RMB Undergraduate Innovation and Entrepreneurship Training Program of Hohai University
RESEARCH	I FUNDINGS
Jan. 2024– Dec. 2025	<b>Host</b> (1/4), Grant No. 12326609, Amount: 1,000,000 RMB National Natural Science Foundation of China, Tianyuan Fund for Mathematics
Jan. 2024– Dec. 2025	Host (1/1), Grant No. 20230140, Amount: 20,000 RMB Young Talent Fund of Association for Science and Technology in Shaanxi, China
May 2023– Dec. 2024	<b>Host (1/1),</b> Grant No. 2022-010, Amount: 30,000 RMB Funds for Scientific and Technological Activities of Excellent Overseas Chinese Scholars, Shaanxi Province, China
Apr. 2023– Mar. 2025	<b>Host</b> (1/1), Grant No. G2023KY0601, Amount: 200,000 RMB Fundamental Research Funds for the Central Universities
Jan. 2023– Dec. 2024	<b>Host</b> (1/1), Grant No. 62206220, Amount: 200,000 RMB National Natural Science Foundation of China
Oct. 2021– Sept. 2024	<b>Host</b> (1/1), Grant No. 2021A1515110019, Amount: 100,000 RMB Guangdong Basic and Applied Basic Research Foundation
Nov. 2021– Apr. 2023	Host (1/1), Grant No. 2021M702678, Amount: 80,000 RMB Fellowship of China Postdoctoral Science Foundation
Jan. 2021– Jun. 2021	Host (1/1), Amount: 10,000 RMB Funds for the Excellent Dissertations of Top Graduate Students in School of

Electro-Mechanical Engineering, Xidian University

Doctoral Students' Short-Term Study Abroad Scholarship Funds, Xidian University

**Host** (1/1), Amount: 100,000 RMB

Oct. 2019-

Nov. 2020

Sept. 2019– Jul. 2021	Host (1/1), Amount: 100,000 RMB Excellent Doctoral Dissertations Funds of Xidian University
May 2018– May 2019	Host (1/1), Amount: 5,000 RMB Innovation Funds of Xidian University
Oct. 2015– Oct. 2016	<b>Host (1/1),</b> Grant No. 2015B38014, Amount: 5,000 RMB Fundamental Research Funds for the Central Universities
Nov. 2011– Nov. 2012	Host, (1/1), Amount: 400 RMB Undergraduate Science and Technology Funds of Hohai University
Mar. 2023– Feb. 2025	<b>Major Participant (2/5),</b> Grant No. 20222058023002, Amount: 200,000 RMB Aeronautical Science Foundation of China
Jan. 2021– Dec. 2024	<b>Major Participant (3/7),</b> Grant No. 62076189, Amount: 640,000 RMB National Natural Science Foundation of China
Jan. 2018– Dec. 2021	Major Participant (8/10), Grant No. 11771120, Amount: 480,000 RMB National Natural Science Foundation of China
Jun. 2015– Jun. 2017	<b>Major Participant</b> (3/4), Grant No. 2015B19514, Amount: 100,000 RMB Fundamental Research Funds for the Central Universities
EDUCATION	NAL PROGRAMS/FUNDINGS
Jan. 2024– Dec. 2025	<b>Host</b> (1/4), Grant No. Pending, Amount: 15,000 RMB Education Teaching Reform Project of Northwestern Polytechnical University
Mar. 2023– Mar. 2025	<b>Host (1/5),</b> Grant No. 2023YMs022, Amount: 10,000 RMB  Degree and Postgraduate Education Research Funds of Northwestern Polytechnical University
Jan. 2023– Dec. 2023	<b>Host (1/4),</b> Grant No. 23JG0096, Amount: 20,000 RMB  Postgraduate Cultivation Quality Improvement Program of Northwestern Polytechnical University
Jan. 2024– Dec. 2025	<b>Major Participant (3/4),</b> Grant No. Pending, Amount: 30,000 RMB Education Teaching Reform Project of Northwestern Polytechnical University
Oct. 2023– Oct. 2024	<b>Major Participant (3/4),</b> Grant No. Pending, Amount: 50,000 RMB University-Industry Collaborative Education Program of Ministry of Education
Jan. 2023– Dec. 2023	Major Participant (3/3), Grant No. 23KC0181, Amount: 20,000 RMB  Postgraduate Cultivation Quality Improvement Program of Northwestern Polytechnical University
Jan 2023– Dec. 2023	Instructor, Grant No. W016801, Amount: 10,000 RMB "Internet Plus" College Students' Innovation and Entrepreneurship Seed Program of Northwestern Polytechnical University

[1] **Cong Wang**, *Scientific Paper Writing*. Posts & Telecom Press, 2024. (To Be Submitted)

#### **Monographs**

[1] **Cong Wang** and Mengchu Zhou, Fuzzy Clustering for Image Segmentation: Principles, Techniques, and Implementations. Springer, 2024. (To Be Submitted)

#### **Book Chapters**

[1] **Cong Wang**, Mengchu Zhou, Witold Pedrycz, and Zhiwu Li, "Noise-estimation-based Fuzzy C-Means clustering for image segmentation," Intelligent Image and Video Analytics (Edited by El-Sayed M. El-Alfy, George Bebis, and Mengchu Zhou), CRC Press, Taylor & Francis Group, Boca Raton, FL, U.S.A., pp. 251–302, 2023. Doi: 10.1201/9781003053262.

## **Patents**

- [1] Yuan Yuan, Mingxin Jin, and **Cong Wang**, "A ground object classification method based on statistical and semantic features for vicinagearth security," Chinese Invention Patent, Application No. 202311619735.8, Nov. 30, 2023.
- [2] **Cong Wang** and Mingxin Jin, "A remote sensing object classification method based on dual heterogeneous network for vicinagearth security," Chinese Invention Patent, Application No. 202311623729.X, Nov. 30, 2023.
- [3] Xuelong Li, **Cong Wang**, and Mingyuan Wang, "A feature-preserving-driven scene restoration method for UAV oblique photography," Chinese Invention Patent, Publication No. CN116309196A, Jun. 23, 2023.
- [4] **Cong Wang** and Xuelong Li, "A multi-strategy processing method for strain anomaly detection of aircraft structures," Chinese Invention Patent, Publication No. CN116561497A, Aug. 8, 2023.
- [5] **Cong Wang** and Xuelong Li, "A mixed-noise-driven UAV image segmentation method," Chinese Invention Patent, Publication No. CN116309619A, Jun. 23, 2023.
- [6] **Cong Wang**, Xuelong Li, and Xin Tan, "A segmentation strategy for cardiac MRI image based on mixed noise analysis and its applications," Chinese Invention Patent, Publication No. CN116309637A, Jun. 23, 2023.

#### **Published Journal Papers**

- [1] Cong Wang, Mengchu Zhou\*, Witold Pedrycz, and Zhiwu Li\*, "Comparative study on noise-estimation-based Fuzzy C-Means clustering for image segmentation," *IEEE Transactions on Cybernetics*, vol. 54, no. 1, pp. 241–253, Jan. 2024. (WOS: 000912825300 001, SCI Q1, IF: 19.118, Regular Paper)
- [2] Heng Wang, Cong Wang, and Yuan Yuan\*, "Asymmetric dual-direction quasi-recursive network for single hyperspectral image super-resolution," *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 33, no. 11, pp. 6331–6346, Nov. 2023. (WOS: 001093434100010, SCI Q1, IF: 8.4, Regular Paper)
- [3] **Cong Wang**, Witold Pedrycz, Zhiwu Li\*, and Mengchu Zhou\*, "Kullback-Leibler divergence-based Fuzzy C-Means clustering incorporating morphological reconstruction and wavelet frames for image segmentation," *IEEE Transactions on Cybernetics*, vol. 52, no. 8, pp. 7612–7623, Aug. 2022. (WOS: 000733503200001, SCI Q1, IF: 19.118, Regular Paper)
- [4] Tailong Jing, Cong Wang, Witold Pedrycz, Zhiwu Li\*, Giancarlo Succi, and Mengchu

- Zhou, "Granular models as networks of associations of information granules: A development scheme via augmented principle of justifiable granularity," *Applied Soft Computing*, vol. 115, p. 108062, Jan. 2022. (WOS: 000736968800002, SCI Q1, IF: 8.263, Regular Paper)
- [5] Cong Wang, Witold Pedrycz, Zhiwu Li\*, Mengchu Zhou\*, and Jun Zhao, "Residual-sparse Fuzzy C-Means clustering incorporating morphological reconstruction and wavelet frame," *IEEE Transactions on Fuzzy Systems*, vol. 29, no. 12, pp. 3910–3924, Dec. 2021. (WOS: 000724479300032, SCI Q1, IF: 12.253, Full Paper)
- [6] **Cong Wang**, Witold Pedrycz, Zhiwu Li\*, Mengchu Zhou\*, and Shuzhi Sam Ge, "G-image segmentation: Similarity-preserving Fuzzy C-Means with spatial information constraint in wavelet space," *IEEE Transactions on Fuzzy Systems*, vol. 29, no. 12, pp. 3887–3898, Dec. 2021. (WOS: 000724479300030, SCI Q1, IF: 12.253, Full Paper)
- [7] **Cong Wang**, Witold Pedrycz, Mengchu Zhou\*, and Zhiwu Li\*, "Sparse regularization-based Fuzzy C-Means clustering incorporating morphological grayscale reconstruction and wavelet frames," *IEEE Transactions on Fuzzy Systems*, vol. 29, no. 7, pp. 1826–1840, Jul. 2021. (WOS: 000670553100011, SCI Q1, IF: 12.253, Full Paper)
- [8] **Cong Wang**, Witold Pedrycz, Zhiwu Li\*, and Mengchu Zhou\*, "Residual-driven Fuzzy C-Means clustering for image segmentation," *IEEE/CAA Journal of Automatica Sinica*, vol. 8, no. 4, pp. 876–889, Apr. 2021. (WOS: 000628913100012, SCI Q1, IF: 7.847, Regular Paper)
- [9] **Cong Wang**, Ziyue Yan, Witold Pedrycz, Mengchu Zhou\*, and Zhiwu Li\*, "A weighted fidelity and regularization-based method for mixed or unknown noise removal from images on graphs," *IEEE Transactions on Image Processing*, vol. 29, no. 1, pp. 5229–5243, Dec. 2020. (WOS: 000522185800001, SCI Q1, IF: 10.856, Regular Paper)
- [10] **Cong Wang**, Witold Pedrycz, Jianbin Yang, Mengchu Zhou\*, and Zhiwu Li\*, "Wavelet frame-based Fuzzy C-Means clustering for segmenting images on graphs," *IEEE Transactions on Cybernetics*, vol. 50, no. 9, pp. 3938–3949, Sept. 2020. (WOS: 000562306000010, SCI Q1, IF: 11.448, Regular Paper)
- [11] **Cong Wang\***, Jixing Chen, Zhiwu Li, Emad S. Abouel Nasr, and Abdulaziz Mohammed El-Tamimi, "An indicator system for evaluating the development of land-sea coordination systems: A case study of Lianyungang port," *Ecological Indicators*, vol. 98, pp. 112–120, Mar. 2019. (WOS: 000464891100013, SCI Q1, IF: 4.229, Regular Paper)
- [12] **Cong Wang** and Jianbin Yang\*, "Poisson noise removal of images on graphs using tight wavelet frames," *The Visual Computer*, vol. 34, no. 10, pp. 1357–1369, Oct. 2018. (WOS: 000442204400007, SCI Q3, IF: 1.415, Regular Paper)
- [13] Jianbin Yang\* and **Cong Wang**, "A wavelet frame approach for removal of mixed Gaussian and impulse noise on surfaces," *Inverse Problems and Imaging*, vol. 11, no. 5, pp. 783–798, Oct. 2017. (WOS: 000411945300001, SCI Q1, IF: 1.465, Regular Paper)
- [14] Dongmei Ma and **Cong Wang\***, "Removal of mixed Gaussian and impulse noise using data-driven tight frames," *Journal of Engineering Science and Technology Review*, vol. 11, no. 2, pp. 26–31, 2018. (EI No. 20182405313426)
- [15] Cong Wang, Jianbin Yang\*, and Ying Deng, "Application of mathematical modeling

- methods in wind-power prediction," *Acta Energiae Solaris Sinica*, vol. 36, no. 5, pp. 1081–1087, May 2015. (EI No. 20153001062255)
- [16] **Cong Wang\***, "Data-driven tight frame based image restoration with Poisson noise," *Information Technology*, vol. 9, pp. 71–75, Sept. 2017.
- [17] Xiaohui Li and Cong Wang\*, "Wavelet frame based nonlocal surface fairing," *Electronic Design Engineering*, vol. 20, no. 5, pp. 178–181, May 2017.
- [18] Ying Deng and **Cong Wang\***, "Applications on maximum power point tracking for photovoltaic off-grid system based on particle swarm optimization algorithm under partial shaded conditions," *Journal of Nanjing University of Information Science and Technology*, vol. 9, no. 1, pp. 106–112, Jan. 2017.
- [19] Yu Feng and **Cong Wang\***, "Research on combination forecasting model in outstanding of deposits forecast," *Economic Research Guide*, vol. 14, pp. 146–150, Jun. 2018.
- [20] Lijing Fan and Cong Wang\*, "Application of data-driven tight frame in gray image denoising," *Electronic Design Engineering*, vol. 25, no. 15, pp. 180–183, Aug. 2017.
- [21] Lin Du and Cong Wang\*, "Data-driven tight frame based image restoration," *Electronic Design Engineering*, vol. 25, no. 22, pp. 178–181, Nov. 2017.

# **Accepted and To Be Published**

[1] Cong Wang, Xin Tan, Bo Li\*, and Mengchu Zhou\*, "Noise-estimation-dominated fuzzy segmentation strategy for accurate implantation of implantable cardioverter defibrillators," *IEEE Transactions on Fuzzy Systems*, To Be Published, doi: 10.1109/TFUZZ.2024.33649 70. (SCI Q1, IF: 11.9)

## **Submitted and Under Review**

- [1] Heng Wang, Cong Wang, and Yuan Yuan\*, "Neighbor spectra maintenance and context affinity enhancement for single hyperspectral image super-resolution," *IEEE Transactions on Geoscience and Remote Sensing*, Under Review, 2024. (*Co-first Author*, SCI Q1, IF: 8.2, Regular Paper)
- [2] Heng Wang, Cong Wang, and Yuan Yuan\*, "Hierarchical context measurement network for single hyperspectral image super-resolution," *IEEE Transactions on Multimedia*, Under Review, 2024. (*Co-first Author*, SCI Q1, IF: 7.3, Regular Paper)
- [3] Mingxin Jin, **Cong Wang**, and Yuan Yuan\*, "Dual heterogeneous network for hyperspectral image classification," *IEEE Transactions on Circuits and Systems for Video Technology*, **Under Review**, 2024. (*Co-first Author*, SCI Q1, IF: 8.4, Regular Paper)
- [4] Mingxin Jin, Cong Wang, and Yuan Yuan\*, "Statistical texture awareness network for hyperpsectral image classification," *IEEE Transactions on Geoscience and Remote Sensing*, Under Review, 2024. (*Co-first Author*, SCI Q1, IF: 8.2, Regular Paper)
- [5] Qing Guo, Hong Song\*, **Cong Wang**, Jingfan Fan\*, Danni Ai, Yuanjin Gao, Xiaoling Yu\*, and Jian Yang, "Segmentation of 3D anatomically diffused tissues in MR images through edge-preserving constrained center-free fuzzy C-means," *IEEE Transactions on Fuzzy Systems*, **Under Review**, 2024. (SCI Q1, IF: 11.9, Full Paper)
- [6] Haoning Li, Cong Wang, and Qinghua Huang\*, "Employing iterative feature selection in fuzzy rule-based binary classification," *IEEE Transactions on Fuzzy Systems*, Under Review, 2024. (*Co-first Author*, SCI Q1, IF: 11.9, Full Paper)

- [7] Tailong Jing, **Cong Wang\***, Witold Pedrycz, Sheng Du, and Zhiwu Li\*, "Human-centric fuzzy reinforcement learning policies by particle swarm optimization," *Expert Systems with Applications*, **Under Review**, 2024. (SCI Q1, IF: 8.5, Regular Paper)
- [8] Jianbin Yang, **Cong Wang**\*, Hui Hou, Mingyuan Wang, and Xuelong Li, "Feature-driven variational mesh denoising," *IEEE Transactions on Circuits and Systems for Video Technology*, **Submitted**, 2024. (SCI Q1, IF: 8.4, Regular Paper)
- [9] Ke Li, Di Wang, Haojie Xu, Haodi Zhong, and Cong Wang\*, "Language-guided progressive attention for visual grounding in remote sensing images," *IEEE Transactions on Geoscience and Remote Sensing*, Under Review, 2024. (SCI Q1, IF: 8.2, Regular Paper)
- [10] Jian Yang, Cong Wang\*, and Xiaobin Ren, "Robust image registration via consistent topology sort and vision inspection," *IEEE Transactions on Systems, Man and Cybernetics: Systems*, Under Review, 2024. (SCI Q1, IF: 8.7)
- [11] Qinghua Huang, Hao Xu, Haoning Li, and **Cong Wang\***, "Interactive learning between features and classifiers by constructing a nested evolutionary framework," *IEEE Transactions on Neural Networks and Learning Systems*, **Under Review**, 2024. (SCI Q1, IF: 10.4, Regular Paper)
- [12] Tailong Jing, **Cong Wang**\*, Witold Pedrycz, Giancarlo Succi, and Zhiwu Li\*, "Time series classification based on image transformation and wavelet convolutional neural networks," *Applied Soft Computing*, **Under Review**, 2024. (SCI Q1, IF: 8.7, Regular Paper)
- [13] **Cong Wang**, Xin Tan, Qinghua Huang\*, and Xuelong Li\*, "Fast and robust structural health monitoring," *IEEE Transactions on Instrumentation and Measurement*, Submitted, 2024. (SCI Q1, IF: 5.6, Regular Paper)
- [14] **Cong Wang**, Mengchu Zhou\*, Witold Pedrycz, Zhiwu Li, and Xuelong Li\*, "G-image segmentation: Partition-sparse Fuzzy C-Means clustering incorporating spatial information and Graph wavelet," *IEEE Transactions on Cybernetics*, **Under Review**, 2023. (SCI Q1, IF: 11.8, Regular Paper)
- [15] **Cong Wang**, Junxi Lin, and Xuelong Li\*, "Structural-equation-modeling-based indicator systems for image quality assessment," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Under Review, 2023. (SCI Q1, IF: 23.6, Regular Paper)
- [16] Cong Wang, Guodong Sun, Cailing Wang, Zixuan Gao, and Hongwei Wang\*, "Monte Carlo-based restoration of images degraded by atmospheric turbulence," *IEEE Transactions on Systems, Man and Cybernetics: Systems*, Under Review, 2023. (SCI Q1, IF: 8.7)

#### To Be Submitted

- [1] Cong Wang, Mengchu Zhou, Witold Pedrycz, Zhiwu Li, and Xuelong Li\*, "G-image segmentation: A noise-estimation-driven Fuzzy C-Means clustering framework," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, To Be Submitted, 2024. (SCI Q1, IF: 23.6, Regular Paper)
- [2] **Cong Wang**, Mengchu Zhou, Witold Pedrycz, Zhiwu Li, and Xuelong Li\*, "Graph bilateral filtering," *IEEE Transactions on Image Processing*, **To Be Submitted**, 2024. (SCI Q1, IF: 10.6, Regular Paper)

- [3] **Cong Wang**, Mengchu Zhou, Witold Pedrycz, and Xuelong Li\*, "Residual-driven Fuzzy C-Means clustering for segmenting images with Poisson noise," *IEEE Transactions on Fuzzy Systems*, **To Be Submitted**, 2024. (SCI Q1, IF: 11.9, Full Paper)
- [4] **Cong Wang**, Mingyuan Wang, and Xuelong Li\*, "Information capacity: An indicator for information output assessment," *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **To Be Submitted**, 2024. (SCI Q1, IF: 8.7, Regular Paper)
- [5] Cong Wang, Mengchu Zhou, Witold Pedrycz, Zhiwu Li, and Xuelong Li\*, "AFCM: Automatic Fuzzy C-Means clustering for noisy image segmentation," *IEEE Transactions on Fuzzy Systems*, To Be Submitted, 2024. (SCI Q1, IF: 11.9, Full Paper)

# **International Conference Proceedings Papers**

- [1] Xin Tan and **Cong Wang\***, "Re-enhancing fuzzy clustering for medical image segmentation," in *Proceedings of 2023 IEEE International Conference on Information, Communication and Networks*, Xi'an, China, 2023, pp. 1–5. (Best Student Paper)
- [2] Xin Tan and **Cong Wang\***, "Accurate implantation estimation of implantable cardioverter defibrillators via three-stage segmentation strategy," in *Proceedings of IEEE International Conference on Networking, Sensing and Control*, Shanghai, China, 2022, pp. 1–6. (EI: 22512662, **Oral Presentation**)
- [3] Jianbin Yang\*, Enlin Zhang, and **Cong Wang**, "Color image segmentation via wavelet frames," in *Proceedings of the 2019 IEEE 4th International Conference on Signal and Image Processing*, Wuxi, China, 2019, pp. 975–979. (EI: 8868564)
- [4] Jianbin Yang\* and **Cong Wang**, "A developed Fuzzy C-Means algorithm for mesh segmentation," in *Proceedings of the 2018 11th International Congress on Image and Signal Processing, BioMedical Engineering and Informatics*, Beijing, China, 2018, pp. 1–5. (EI: 8633099)
- [5] Jianyong Zhang\* and **Cong Wang**, "Application of ARMA model in ultra-short term prediction of wind power," in *Proceedings of 2013 International Conference on Computer Sciences and Applications*, Wuhan, China, 2013, pp. 361–364. (EI No. 20143017964633)

## SELECTED HONORS & REWARDS

- Shaanxi Excellent Doctoral Dissertation Award, China, Nov. 2023
- *Best Young Scientist*, 2023 IEEE the 11<sup>th</sup> International Conference on Information, Communication and Networks, Xi'an, China, Aug. 10–13, 2023.
- *Outstanding Contribution Award*, 2023 IEEE the 11<sup>th</sup> International Conference on Information, Communication and Networks, Xi'an, China, Aug. 10–13, 2023.
- *Best Student Paper*, 2023 IEEE the 11<sup>th</sup> International Conference on Information, Communication and Networks, Xi'an, China, Aug. 10–13, 2023.
- Excellent Doctoral Dissertation Award, Xidian University, China, Apr. 2023
- Excellent Doctoral Dissertation Award, China Society of Image and Graphics, Nov. 2022
- *First Prize* in the 1<sup>st</sup> Teachers' Teaching Competition, School of Artificial Intelligence, OPtics and ElectroNics, Northwestern Polytechnical University, China, Sept. 2022
- Postgraduate "Presidential Scholarship", Xidian University, China, Dec. 2020
- National Scholarship, State Education Ministry, China, Dec. 2019

- Outstanding Graduates Prize, Hohai University, China, Jun. 2017
- *Merit Student*, Jiangsu Province, China, May 2017
- *National Scholarship*, State Education Ministry, China, Dec. 2016
- First Prize in the 2014's Young Academic Forum, Hohai Univerity, China, Jan. 2015
- Second Prize in the 2011's National Undergraduate Mathematic Modeling Competition, China, Nov. 2011

## PROFESSIONAL SKILLS

- Hardware Description Languages: VHDL, Verilog
- High-level Languages: C, C++
- Algorithm Development Environments: Python, Matlab, Mathematica
- College English Test Band 6
- College English Test Band 4
- Jiangsu Computer Rank Examination 3
- Jiangsu Computer Rank Examination 2
- Literature Searching Online

#### PROFESSIONAL AFFILIATIONS

- Member, Institute of Electrical and Electronics Engineers (IEEE)
- Member, Chinese Society of Image and Graphics (CSIG)
- Member, China Computer Federation (CCF)
- Member, Chinese Association for Artificial Intelligence (CAAI)
- Member, China Society for Industrial and Applied Mathematics (CSIAM)
- Member, Chinese Association of Automation (CAA)
- Secretary General of Shaanxi Vicinagearth Security Society, Sept. 2023–Sept. 2027
- Peer Reviewer of National Natural Science Foundation of China, Feb. 2023–Present
- Technology Expert in Xi'an, China, May 2022–May 2025

## **PROFESSIONAL ACTIVITIES**

# **Associate Editor**

- IEEE Transactions on Fuzzy Systems, Jan. 1, 2024–Dec. 12, 2024.
- 2023 IEEE International Conference on Systems, Man and Cybernetics, Maui, Hawaii, USA, Oct. 1–4, 2023.
- 2022 IEEE International Conference on Systems, Man and Cybernetics, Prague, Czech Republic, Oct. 9–12, 2022.

#### **Editorial Board Member**

- Advances in Networks, Mar. 28, 2023–Mar. 28, 2025.
- Optoelectronics Reports, Jun. 15, 2023–Present.
- Computer Science and Technology, May 18, 2023–May 17, 2025.

# **Section Editor**

- Medical Imaging Process & Technology, Apr. 21, 2023–Present.
- Optoelectronics Reports, Jun. 7, 2023–Present.

# **Program Committee Chair**

- 2024 IEEE the 12<sup>th</sup> International Conference on Information, Communication and Networks, Guilin, China, Aug. 10–13, 2024.
- 2023 IEEE the 11<sup>th</sup> International Conference on Information, Communication and Networks, Xi'an, China, Aug. 17–20, 2023.

## **Publication Chair**

• 2023 International Conference on Cyber-physical Social Intelligence, Xi'an, China, Oct. 20–23, 2023.

# **Forum Chair**

● 2023 Chinese Conference on Biometric Recognition, Xuzhou, China, Dec. 1–3, 2023.

## **Technical Committee Member**

- 2024 2nd Asia Conference on Artificial Intelligence, Machine Learning and Robotics, Singapore, Sept. 6–8, 2024.
- 2024 The 12th International Conference on Information Technology and Science, Phuket Island, Thailand, Jun. 19–21, 2024.
- 2024 International Conference on Computing, Machine Learning and Data Science, Singapore, Apr. 12–14, 2024.
- The 4<sup>th</sup> International Conference on Artificial Intelligence Technology, Macau, China, Dec. 13–15, 2023.
- 2022 International Symposium on Computing and Artificial Intelligence, Beijing, China, Dec. 16–18, 2022.

# **Program Committee Member**

- 2024 IEEE International Conference on Blockchain, Copenhagen, Denmark, Aug. 19–22, 2024.
- 2024 International Conference on Advanced Robotics, Automation Engineering and Machine Learning, Hangzhou, China, Jun. 28–30, 2024.
- 2024 International Conference on Optical Communication and Computer Engineering, Beijing, China, Jun. 22–23, 2024.
- The 38<sup>th</sup> AAAI Conference on Artificial Intelligence, Vancouver, British Columbia, Canada, Feb. 20–27, 2024.
- 2023 IEEE International Conference on Blockchain, Ocean Flower Island, Hainan, China, Dec. 15–18, 2023.
- 2023 IEEE International Conference on Networking, Sensing and Control, Marseille, France, Oct. 25–27, 2023
- 2023 International Conference on Cyber-physical Social Intelligence, Xi'an, China, Oct. 20–23, 2023.
- 2022 IEEE International Conference on Networking, Sensing and Control, Shanghai, China, Dec. 15–18, 2022.
- 2021 International Conference on Artificial Intelligence and Big Data in Digital Era, Ho Chi Minh City, Vietnam, Dec. 18–19, 2021.

#### **Invited Speaker**

• The 2<sup>nd</sup> International Conference on Materials Science and Nanotechnology, Paris, France,

- Mar. 25-27, 2024.
- 2024 International Conference on Renewable Energy and Sustainable Energy, Paris, France, Mar. 25–27, 2024.
- Aviation experts Forum, Xi'an, China, Dec. 29, 2023.
- Expert lecture series on "Uncertain Artificial Intelligence", Shenzhen, China, Dec. 16, 2023.
- 2023 Chinese Conference on Biometric Recognition, Xuzhou, China, Dec. 1–3, 2023.
- CSIG Excellent Doctoral Forum, Xi'an, China, Jun. 17, 2023.
- The 3<sup>rd</sup> International Conference on Computers and Artificial Intelligence Technology, Quzhou, Zhejiang, China, Nov. 4–6, 2022.
- The 2<sup>nd</sup> Workshop for Sino-UK to Promote Development and Application of Artificial Intelligence, University of Leicester, Dec. 10, 2021.

# **Journal Reviewer**

- ACM Computing Surveys
- ACM Transactions on Internet Technology
- Anais da Academia Brasileira de Ciências
- Applied Mathematical Modelling
- Applied Soft Computing
- Circuits, Systems, and Signal Processing
- Digital Communications and Networks
- Ecological Indicators
- Electronics
- Engineering Applications of Artificial Intelligence
- ETRI Journal
- Expert Systems
- Frontiers in Environmental Science
- Granular Computing
- Heritage Science
- IEEE Access
- IEEE Internet of Things Journal
- IEEE Photonics Journal
- IEEE Systems Journal
- IEEE Transactions on Circuits and Systems for Video Technology
- IEEE Transactions on Consumer Electronics
- IEEE Transactions on Cybernetics
- IEEE Transactions on Fuzzy Systems
- IEEE Transactions on Industrial Informatics
- IEEE Transactions on Intelligent Transportation Systems
- IEEE Transactions on Knowledge and Data Engineering
- IEEE Transactions on Medical Imaging
- IEEE Transactions on Neural Networks and Learning Systems
- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Transactions on Power Delivery

- IEEE Transactions on Systems, Man and Cybernetics: Systems
- IEEE/CAA Journal of Automatica Sinica
- IET Image Processing
- Imaging Science Journal
- International Journal of Communication Systems
- Journal of Classification
- Journal of Experimental & Theoretical Artificial Intelligence
- Journal of Infrastructure, Policy and Development
- Journal of Risk and Reliability
- Journal of Shanghai University (Natural Science Edition)
- Mechanical Systems and Signal Processing
- Multimedia Tools and Applications
- Neural Computing and Applications
- Pattern Analysis and Applications

# **Conference Reviewer**

- 2023 the 17<sup>th</sup> Chinese Conference on Biometric Recognition
- 2023 the 38<sup>th</sup> AAAI Conference on Artificial Intelligence
- 2019 IEEE the 15<sup>th</sup> International Conference on Automation Science and Engineering
- 2020 IEEE the 16<sup>th</sup> International Conference on Automation Science and Engineering
- 2021 IEEE the 17<sup>th</sup> International Conference on Automation Science and Engineering
- 2023 IEEE International Conference on Blockchain
- 2022 IEEE International Conference on Robotics and Automation
- 2023 IEEE International Conference on Robotics and Automation
- 2020 IEEE International Conference on Systems, Man and Cybernetics
- 2021 IEEE International Conference on Systems, Man and Cybernetics
- 2022 IEEE International Conference on Systems, Man and Cybernetics
- 2023 IEEE International Conference on Systems, Man and Cybernetics
- 2021 International Conference on Artificial Intelligence and Big Data in Digital Era

## **ACADEMIC ACTIVITIES**

- Conferee: The 19<sup>th</sup> CSIG Young Scientists Conference, Guangzhou, China, Dec. 28–31, 2023.
- Conferee: The IEEE Leadership Seminar, Xi'an, China, Oct. 27–30, 2023
- Conferee: The 6th Chinese Conference on Pattern Recognition and Computer Vision, Xiamen, China, Oct. 13–15, 2023.
- Conferee: 2023 Cognitive and Intelligent Computing Summit Forum, Xi'an, China, Oct. 13–15, 2023.
- Conferee: The 12<sup>th</sup> International Conference on Image and Graphics, Nanjing, China, Sept. 22–24, 2023.
- Conferee: The 1<sup>st</sup> Vicinagearth Security Symposium and Advanced Discipline Forum on Artificial Intelligence, Xi'an, China, Aug. 22–23, 2023.
- Conferee: 2023 IEEE International Conference on Information, Communication and

- Networks, Xi'an, China, Aug. 17-20, 2023.
- Conferee: PKU Symposium on Applied Mathematics for Graduate Students, Beijing, China, Jul. 24–Aug. 4, 2023.
- Conferee: The 4<sup>th</sup> National Big Data and Artificial Intelligence Congress, Guiyang, China, Jul. 7–9, 2023.
- Conferee: 2023 IJCAI Young Elite Symposium, Shanghai, China, Jul. 4–6, 2023.
- Conferee: 2023 Vision and Learning Seminar, Wuxi, China, Jun. 10–12, 2023.
- Conferee: 2023 Beijing Academy of Artificial Intelligence Conference, Beijing, China, Jun. 9–10, 2023.
- Conferee: 2023 Chinese Congress on Image and Graphics, Suzhou, China, May 11–14, 2023.
- Conferee: The 18<sup>th</sup> CSIG Young Scientists Conference, Changsha, China, Apr. 22–24, 2023.
- Conferee: 2023 Pujiang Innovation Forum, Shanghai, China, Apr. 1–2, 2023.
- Conferee: The 5<sup>th</sup> Frontier Forum on China National Postdoctoral Program for Innovative Talents, Changsha, China, Mar. 17–19, 2023.
- **Conferee:** The 4<sup>th</sup> China National Postdoctoral Forum for Digital Technology Development, Zhijiang Lab, Hangzhou, China, Nov. 23–24, 2022.
- Conferee: XDU Workshop on Brain Computing and Deep Learning of Big Data, Xidian University, Xi'an, China, Oct. 14–16, 2016.
- Conferee: PKU Workshop on Mathematics in Imaging Science and Data Analysis, Peking University, Beijing, China, Aug. 4–5, 2016
- Conferee: NKU Workshop on Wavelet Analysis and Its applications, Nankai University, Tianjin, China, Apr. 22–24, 2016.
- Conferee: Open Class: Supervisory Control of Discrete Event Systems, Xidian University, Speaker: Prof. W. M. Wonham, Apr. 13–May 7, 2015.
- Conferee: 2013 International Conference on Computer Sciences and Applications, Wuhan, China, Dec. 14–15, 2013.