

PERSONAL INFORMATION

- ✧ Associate Professor, State Key Laboratory of Internet of Things for Smart City, University of Macau, and Department of Computer and Information Science, University of Macau
- ✧ Senior Member of Institute of Electrical and Electronics Engineers (IEEE)
- ✧ Distinguished Member of China Computer Federation (CCF), China
- ✧ Fellow of European Alliance for Innovation (EAI)
- ✧ Top 2% Scientists Worldwide by Stanford University, 2021, 2022, 2023, and 2024
- ✧ Vice-Chair of IEEE Communications Society (ComSoc), Macau Chapter
- ✧ Vice-Chair of Meetings and Conference Committee, IEEE ComSoc Asia/Pacific Region
- ✧ Vice-Chair of SIG on Green Computing and Data Processing, IEEE ComSoc, Technical Committee on Green Communications and Computing
- ✧ Contact Address: N21-5011j, University of Macau, Avenida da Universidade, Taipa Macau
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- ✧ Email Address: yuanwu@um.edu.mo
- ✧ Homepage: <https://www.fst.um.edu.mo/personal/yuanwu/>
- ✧ Google Scholar: https://scholar.google.com/citations?user=H1bxY_4AAAAJ&hl=zh-CN

RESEARCH INTEREST & CAREER SUMMARY**✧ Research Interests**

- Mobile Edge Computing and Edge Intelligence
- Integrated Sensing, Communication and Computing Networks
- Resource Management for Wireless Networks
- Vehicular Networks and Intelligent Transportation Systems
- Maritime Communication Networks and Smart Ocean Networks

✧ Career Summary

- **Publications:** 2 Books, 3 Book Chapters, 170+ Journal Papers, 70+ Conference Papers, 2 US Patents, and 12 Chinese Patents
- **Citations:** Google-Scholar Citations: 9800+, H-Index: 53, and i10-Index: 165
- **Awards:** 14 Conference/Journal Paper Awards
- **Services:** Associate Editor for 7 Leading Journals, 7 Guest Editorship, 15+ Conference TPC Chairs/Co-Chairs, and 8 Conference Invited Talks

EDUCATIONAL EXPERIENCE

- ✧ **Doctor of Philosophy** 11/2010
Electrical and Computer Engineering, Hong Kong University of Science and Technology, Hong Kong
- ✧ **Master of Engineering** 06/2006
Electronic Science and Technology, College of Information Science and Electronic Engineering, Zhejiang University, Hangzhou, China

✧ Bachelor of Engineering	06/2004
Information Engineering, College of Information Science and Electronic Engineering, Zhejiang University, Hangzhou, China	

WORKING EXPERIENCE

✧ Tenured Associate Professor	08/2019-Present
State Key Laboratory of Internet of Things for Smart City, University of Macau, Macau	
✧ Full Professor	01/2019-07/2019
College of Information Engineering, Zhejiang University of Technology, Hangzhou, China	
✧ Assistant Director of University Development and Planning Office	10/2018-07/2019
Zhejiang University of Technology, Hangzhou, China	
✧ Visiting Scholar	02/2016-02/2017
Department of Electrical and Computer Engineering, University of Waterloo, ON, Canada	
✧ Visiting Scholar	01/2013-02/2013
Department of Computer Science, Georgia State University, Atlanta, Georgia, US	
✧ Associate Professor	09/2012-12/2018
College of Information Engineering, Zhejiang University of Technology, Hangzhou, China	
✧ Assistant Professor	08/2011-09/2012
College of Information Engineering, Zhejiang University of Technology, Hangzhou, China	
✧ Posdoc Research Associate	08/2010-08/2011
Department of Electronic and Computer Engineering, Hong Kong University of Science and Technology	
✧ Visiting Student and Research Collaborator	09/2009-02/2010
Department of Electrical Engineering, Princeton University, Princeton, New Jersey, US	

AWARDS

Note: Bold with underline denotes the corresponding author.

- ✧ **Best Conference/Journal Paper Awards**
 1. The Best Conference Paper Award in the 20th International Conference on Mobilit, Sensing and Networking (MSN'2024) for
Z. Tang, W. Peng, J. Guo, J. Lou, H. Cui, T. Wang, **Yuan Wu**, and W. Jia, "A Layer-aware and Resource-adaptive Container Scheduler in Edge Computing," in **Proceedings of the 20th International Conference on Mobility, Sensing and Networking (MSN'2024)**, Dec. 20-22, 2024, Harbin, China
 2. **The Best Conference Paper Award** in 2024 International Conference on Ubiquitous Communication (UCOM'2024) for
C. Dou (PhD student), X. Huang (Posdoc), **Yuan Wu** (Corresponding author), L. Qian, and T.Q.S. Quek, "Multi-Access Edge Computing Empowered Integrated Hybrid Sensing and Communication: A Computation-Efficient Design," in **Proceedings of 2024 International Conference on Ubiquitous Communication (UCOM'2024)**, July 5-7, 2024, Xi'an, China
 3. **The Best Conference Paper Award** in the International Conference on Cloud and Network Computing (ICCNC'2024) for

- M. Dai (Posdoc), C. Dou (PhD student), **Yuan Wu** (Corresponding author), L. Qian, B. Lin, Z. Su, and X. Shen, “Computing on Surface: A Multi-Task Multi-Access Offloading Scheme in Maritime Edge Networks,” in **Proceedings of 2024 International Conference on Cloud and Network Computing (ICNC’2024)**, May 31-June 2, 2024, Jinhua, China
4. **The Best Conference Paper Award** in the IEEE 23rd International Conference on Communication Technology 2023 (ICCT’2023) for
N. Huang (PhD student), C. Dou (PhD student), **Yuan Wu** (Corresponding author), L. Qian, B. Lin, and Z. Su, “Joint Sensing, Compression and Communication for Satellite-Terrestrial Integrated Network,” in **Proceedings of 2023 IEEE 23rd International Conference on Communication Technology (ICCT’2023)**, Oct. 20-22, 2023, Wuxi, China.
 5. **The Best Conference Paper Award** in the IEEE Wireless Communications and Networking Conference 2023 (WCNC’2023) for
Z. Luo (Master Student), M. Dai (Posdoc), **Yuan Wu** (Corresponding author), L. Qian, B. Lin, and Z. Su, “UAV-aided Two-tier Computation Offloading for Marine Communication Networks: An Incentive-based Approach,” in **Proceedings of 2023 IEEE Wireless Communications and Networking Conference (WCNC’2023)**, Mar. 26-29, 2023, Glasgow, Scotland, UK. **WCNC is a core conference in IEEE Communications Society.**
 6. **The Best Conference Paper Award** in the 31st Wireless and Optical Communications Conference (WOCC’2022) for
Y. Li (PhD student), **Yuan Wu** (Corresponding author), S. Bi, L. Qian, T.Q.S. Quek, C-Z. Xu and Z. Shi, “Two-tier Multi-access Partial Computation Offloading via NOMA: A Hybrid Deep Learning Approach for Energy Minimization,” in **Proceedings of the 31st Wireless and Optical Communications Conference (WOCC’2022)**, Shenzhen, Aug. 11-12, 2022.
 7. **The Best Conference Paper Award** in 2022 International Wireless Communications and Mobile Computing Conference (IWCMC’2022) for
X. Huang (Posdoc), W. Zhong, J. Nie, J. Kang, Z. Xiong, **Yuan Wu**, and M. Guizani, “Joint Parking and Power Management for Electric Vehicle Edge Computing: A Bilevel Optimization Approach,” in **Proceedings of International Wireless Communications and Mobile Computing Conference (IWCMC’2022)**, May 30-June 3, 2022, Dubrovnik, Croatia
 8. **The 2021 Best Journal Paper Award** in Digital Communications and Networks for
L. Huang, X. Feng, C. Zhang, L. Qian, and **Yuan Wu** (Corresponding author), “Deep Reinforcement Learning-based Joint Task Offloading and Bandwidth Allocation for Multi-user Mobile Edge Computing,” **Digital Communications and Networks (DCN)**, vol. 5, no. 1, pp. 10-17, Feb. 2019. **The latest impact factor of DCN is 7.5. According to the Journal Citation Reports 2023, DCN is ranked as 10/119 in the Category of Telecommunications, within Q1 ranking.**
 9. **The Best Conference Paper Award** in 2021 International Wireless Communications and Mobile Computing Conference (IWCMC’2021) for
Y. Song (Master student), T. Wang (PhD student), **Yuan Wu** (Corresponding author), L. Qian, and Z. Shi, “Non-orthogonal Multiple Access assisted Federated Learning for UAV Swarms: An Approach of Latency Minimization”, in **Proceedings of International Wireless Communications and Mobile Computing Conference (IWCMC’2021)**, June 28-July 2, 2021, Harbin, China
 10. **The Best Conference Paper Award** in 2018 EAI International Conference on Machine Learning and Intelligent Communications (MLICOM’2018) for

- Yuan Wu** (Corresponding author), C. Zhang, K. Ni, J. Shi, L. Qian, L. Huang, W. Lu, and L. Meng, “Joint Time and Power Allocations for Uplink Non-orthogonal Multiple Access Networks,” in **Proceedings of EAI International Conference on Machine Learning and Intelligent Communications (MLICOM’2018)**, July 6-8, 2018, Hangzhou, China
11. **The Best Paper Award** in 2017 IEEE Technical Committee on Green Communications and Computing (TCGCC’2017) for:
Yuan Wu (Corresponding author), L. Qian, X. Yang, J. Zheng, H. Zhou, and X. Shen, “Dual-Connectivity Enabled Traffic Offloading via Small Cells Powered by Energy-Harvesting,” in **Proceedings of IEEE 2017 Global Communications Conference (GLOBECOM’2017)**, Dec. 4-8, 2017, Singapore
 12. **The Best Conference Paper Award** in IEEE 2016 International Conference on Communications (ICC’2016) for:
Yuan Wu (Corresponding author), Y. He, L. Qian, and X. Shen, “Traffic Scheduling and Power Allocations for Mobile Data Offloading via Dual-Connectivity” in **Proceedings of IEEE 2016 International Conference on Communications (ICC’2016)**, May 23-27, 2016, Kuala Lumpur, Malaysia.
ICC is a flagship conference in the IEEE Communication Society.
 13. **The Best Conference Paper Award** in 2016 International Conference on Wireless Communications and Signal Processing (WCSP’2016) for:
Yuan Wu (Corresponding author), J. Zheng, K. Guo, L. Qian, X. Shen, and Y. Cai, “Secrecy Guaranteed Optimal Traffic Offloading via Dual-Connectivity in Small Cell Networks,” in **Proceedings of 2016 International Conference on Wireless Communications and Signal Processing (WCSP’2016)**, Oct. 13-15, Yangzhou, China.
 14. **The Best Conference Paper Award** in 2014 Innovative Smart Grid Technologies-Asia (ISGT-Asia’2014) for:
L. Zhao, W.Z. Song, L. Tong, **Yuan Wu**, and J. Yang, “Topology identification in smart grid with limited measurements via convex optimization”, in **Proceedings of IEEE 2014 Innovative Smart Grid Technologies-Asia (ISGT-Asia’2014)**, May 20-23, 2014, Kuala Lumpur, Malaysia

✧ **University Recognitions**

- **2024 Outstanding Academic Staff Award in UM**, The University-Level “2023/2024 Incentive Scheme for Outstanding Academic Staff”, awarded by University of Macau in 2024
- **2021 Outstanding Academic Staff Award in UM**, The University-Level “2020/2021 Incentive Scheme for Outstanding Academic Staff”, awarded by University of Macau in 2021

✧ **Other Personal Recognitions**

- Senior Member of Institute of Electrical and Electronics Engineers (IEEE)
- Distinguished Member of China Computer Federation (CCF), China
- Fellow of European Alliance for Innovation (EAI), Class of 2020
- Top 2% Scientists Worldwide by Stanford University in 2021, 2022, 2023, 2024
- **The 2024 Excellent Editor Award** of IEEE Transactions on Network Science and Engineering (TNSE). TNSE is a prestigious journal in IEEE Communications Society. The latest impact factor of TNSE is 6.7. According to the Journal Citation Reports 2023, TNSE is ranked as 7/179 in the Category of Engineering, Multidisciplinary, and 5/135 in the Category of Mathematics, Interdisciplinary Applications, both within Q1-ranking.
- **The 2022 Excellent Editor Award** of IEEE Transactions on Network Science and Engineering (TNSE).

- **The 2020 Best Editor Award of China Communications.** China Communications is one of the most prestigious journals in the area of Communications in Mainland China, and it is sponsored by both China Institute of Communications and IEEE Communications Society. The latest impact factor of China Communication is 3.1, with in Q2-ranking.
- The 2019 Excellent Young Researcher Award, awarded by China Institute of Electronics (CIE).
- The 2017 Zhejiang Provincial Natural Science Foundation for Distinguished Young Scholar.

SELECTED EXTERNAL FUNDING

✧ **PI of 3 Projects funded by Natural Science Foundation of China (NSFC)**

1. NSFC General Project “Joint Communication and Computing Resource Management for Multi-access Mobile Edge Computing” Grant Number 62072490, 2021-2024 (On-going)
2. NSFC General Project, “Optimal Resource Management for Traffic Offloading in Next Generation Cellular Systems” Grant Number 61572440, 2016-2019 (Concluded)
3. NSFC Young Scholar Project, “Energy-Efficient Data Transmission Schemes for Cognitive Radio Networks with QoS Guarantee,” Grant Number 61303235, 2014-2016 (Concluded)
- 4.

✧ **PI of 3 Projects funded by Macao Science and Technology Development Fund (FDCT)**

1. FDCT 0158/2022/A, “Edge Computing empowered Integration of Sensing and Communication with its Application in Noncontact Medical and Health Monitoring Systems”, 2022-2024 (On-going)
2. FDCT 0162/2019/A3, “Optimal Design and Resource Management for Non-orthogonal Multiple Access Enabled Multi-access Mobile Edge Computing Systems”, 2020-2023 (Concluded)
3. FDCT 0060/2019/A1, “Representation and Reinforcement Learning Algorithms and Implementations for Task-Resource Scheduling in Distributed Systems”, 2019-2022 (Concluded)

✧ **PI of 1 Joint Project funded by Macao Science and Technology Development Fund (FDCT) and the Ministry of Science and Technology of the People’s Republic of China (MOST)**

1. FDCT-MOST 0066/2019/AMJ, “Research on Key Technologies for Offshore Ocean-Ground-Air Edge Computing Networks”, 2020-2023 (Concluded)

ACADEMIC SERVICE

✧ **Transactions/Journal Associate Editorship**

1. **Associate Editor, IEEE Transactions on Wireless Communications (TWC)**, since July 2022
TWC is the flagship journal in IEEE Communication Society. Its latest impact factor is 8.9. According to the Journal Citation Reports 2023, TWC is ranked as 5/119 in the Category of Telecommunication and 13/352 in the Category of Engineering Electrical & Electronic, both within JCR-Q1 ranking.
2. **Associate Editor, Elsevier Computer Networks**, since November 2021
The latest impact factor of Elsevier Computer Networks is 4.4. According to the Journal Citation Reports 2023, Elsevier Computer Networks is ranked as 9/59 in the Category of Computer Science, Hardware & Architecture, within JCR-Q1 ranking.
3. **Associate Editor, IEEE Transactions on Vehicular Technology (TVT)**, since July 2021
TVT is the flagship journal in IEEE Vehicular Technology Society (VTS). Its latest impact factor is 6.1. TVT is ranked as 15/119 in the Category of Telecommunication, and 12/72 in the Category of Transportation Science

& Technology, both within JCR-Q1 ranking.

4. **Associate Editor, IEEE Transactions on Network Science and Engineering (TNSE)**, since May 2021
The latest impact factor TNSE is 6.7. TNSE is ranked as 7/179 in the Category of Engineering, Multidisciplinary, and 5/135 in the Category of Mathematics, Interdisciplinary Applications, both within JCR-Q1 ranking.
5. **Associate Editor, IEEE Open Journal of Communications Society (OJ-COMS)**, since October 2020
The latest impact factor of OJ-COMS is 6.3. OJ-COMS is ranked as 14/119 in the Category of Telecommunications, within JCR-Q1 ranking.
6. **Associate Editor, China Communications**, since January 2020
China Communications is recognized as one of the most prestigious journals in mainland China in the area of Communication. Its latest impact factor is 3.1, within JCR-Q2 ranking.
7. **Associate Editor, IEEE Internet of Things Journal (IOT-J)**, since September 2019
The latest impact factor IoT-J is 8.2. IoT-J is ranked as 8/119 in the Category of Telecommunication, and 9/249 in the Category of Computer Science, Information Systems, both within JCR-Q1 ranking.

✧ **Guest Editor for Special Issues**

1. **Leading Guest Editor, China Communications** (JCR-Q2, IF:3.1), Feature Topic of “Convergence of 6G empowered Edge Intelligence and Generative AI: Theories, Algorithms, and Applications”, July 2025
2. **Leading Guest Editor, China Communications** (JCR-Q2, IF:3.1), Feature Topic of “Convergence of Digital Twin and 6G enabled Edge Intelligence: Theories, Algorithms and Applications”, Aug. 2022
3. **Guest Editor, IEEE Wireless Communications** (JCR-Q1, IF:10.9), Special Issue of “Aerial Computing: Drones for Multi-Access Edge Computing”, Jan. 2021
4. **Guest Editor, IET Communications** (JCR-Q2, IF:1.5), Special Issue of “UAV-Enabled Mobile Edge Computing”, Nov. 2019
5. **Guest Editor, IEEE Communications Magazine** (JCR-Q1, IF:8.3), Special Issue on “Multi-Access Mobile Edge Computing for Heterogeneous IoT”, July 2018
6. **Guest Editor, IEEE Transactions on Industrial Informatics** (JCR-Q1, IF:11.7), Special Issue on “Energy Informatics for Green Cities”, Feb. 2018
7. **Guest Editor, IEEE Network** (JCR-Q1, IF:6.8), Special Issue of “Vehicle-to-Grid Networks”, Mar. 2017

✧ **Chair/Co-chairs of Technical Program Committee**

1. Leading Track Co-chair, 2025 IEEE 102nd Vehicular Technology Conference (VTC’2025-Fall), for the track of “Recent Result”, Chengdu, China, Fall 2025
2. Symposium Co-chair for 2025 The 14th IEEE/CIC International Conference on Communications in China (ICCC), Symposium of Selected Areas in Communications: 6G, Open RAN, AI RAN, Quantum Communications and Green Networks, Shanghai, China, Aug. 10-13, 2024
3. Workshop TPC Leading Chair, 2025 The Seventh International Workshop on Intelligent Cloud Computing and Networking (ICCN’2025), in conjunction with IEEE International Conference on Computer Communications (INFOCOM’2025), London, UK, May 19-22, 2025
4. Leading Track Co-chair, 2025 IEEE 101st Vehicular Technology Conference (VTC’2025-Spring), for the track of “IoV, IoT, M2M, Sensor Networks, and Ad-Hoc Networking”, Oslo, Norway, June 17-20 2025
5. Symposium Co-chair, 2025 IEEE Global Communications Conference (GLOBECOM’2025), for SAC

Symposium: Satellite and Space Communications, Taipei, Dec. 8-12, 2025

6. Symposium Co-chair, 2024 IEEE Global Communications Conference (GLOBECOM'2024), for Symposium of Green Communications Systems and Networks, Cape Town, South Africa, Dec. 8-12, 2024
7. Symposium Co-chair, 2024 The 13th IEEE/CIC International Conference on Communications in China (ICCC'2024), for Symposium of Cloud and Edge Computing, Hangzhou, China, Aug. 7-9, 2024
8. Leading Symposium Chair, 2024 IEEE International Conference on Communications, Control and Computing Technologies for Smart Grids Conference (SmartGridComm'2024), for Symposium of Control and Operation, Oslo, Norway, Sept. 17-20, 2024
9. Workshop TPC Leading Chair, 2024 The Sixth International Workshop on Intelligent Cloud Computing and Networking (ICCN'2024), in conjunction with IEEE International Conference on Computer Communications (INFOCOM'2024), Vancouver, Canada, May 20-23, 2024
10. Symposium Co-Chair, 2023 IEEE/CIC International Conference on Communications in China (ICCC'2023), for Symposium of Internet of Things, Dalian, China, Aug. 10-12, 2023
11. Symposium Co-Chair, 2023 IEEE 9th World Forum on Internet of Things, for the tack of Applications and User Cases, Aveiro, Portugal, Oct. 12-27, 2023
12. Workshop TPC Co-chair for 2023 The Fifth International Workshop on Intelligent Cloud Computing and Networking (ICCN'2023), in conjunction with IEEE International Conference on Computer Communications (INFOCOM'2023), New York area, USA, May 17-20, 2023
13. Track Co-Chair, 2022 IEEE 95th Vehicular Technology Conference (VTC2022-Spring), for the track of "IoV, IoT, M2M, Sensor Networks, and Ad-Hoc Networking", Helsinki, Finland, June 19-22, 2022
14. Track Co-Chair, 2021 IEEE 93rd Vehicular Technology Conference (VTC'2021-Spring), for the track of "IoV, IoT, M2M, Sensor Networks, and Ad-Hoc Networking", Virtual Conference (Online Only), April 25-May 25
15. Conference TPC Co-chair for 2021 The 11th EAI International Conference on Mobile Networks and Management (EAI MONAMI'2021), Oct. 27-29, 2021
16. Track Co-Chair, 2020 IEEE 92nd Vehicular Technology Conference (VTC'2020-Fall), for the track of "Wireless Networks: Protocols and Security", Virtual Conference (Online Only), Nov. 11-Dec. 16, 2020
17. Conference General Co-chair for EAI Machine Learning & Intelligence for Communications (EAI MLICOM'2018), Hangzhou, China, July 6-8, 2018
18. Track Co-Chair, 2017 IEEE 86th Vehicular Technology Conference (IEEE VTC'2017-Fall), for the Track of "Green Communications and Networks", Toronto, Canada, Sept. 24-27, 2017

✧ **External Committee Member for Academic Services**

1. External Reviewer for Funding Scheme: Future Communications Research and Development Program (FCP), Singapore
2. Global Funding Assessment Panel Member, European Science Foundation (ESF, www.esf.org)
3. External Assessment Member for Faculty Member Promotion: COMSATS University Islamabad, Pakistan
4. External PhD Thesis Exam Committee Member: National University of Sciences and Technology, Pakistan
5. External PhD Thesis Exam Committee Member: University of Chinese Academy of Sciences
6. External PhD Thesis Exam Committee Member: Chinese University of Hong Kong (Shenzhen)
7. External PhD Thesis Exam Committee Member: Xidian University
8. External PhD Thesis Exam Committee Member: Beijing University of Technology
9. External PhD Thesis Exam Committee Member: Macau University of Science and Technology

❖ Other Academic Society Services

1. Vice-Chair of IEEE Communications Society (ComSoc) Macau Chapter, since November 2021
2. Vice-Chair of Meetings and Conference Committee, IEEE ComSoc Asia Pacific Region, since May 2022
3. Vice-Chair of Special Interest Group on Green Computing and Data Processing, IEEE ComSoc, Green Communications and Computing Technical Committee, since July 2022

Invited Talks

1. **Conference Invited Speaker**, “Convergence of Generative AI and Federated Learning for Efficient and Personalized Edge Intelligence”, in 2024 International Conference on Cyber-enabled Distributed Computing and Knowledge Discovery, Workshop on Advanced Optimization and Learning for Distributed and Intelligent Systems, Guangzhou, China, Oct. 24-26, 2024
2. **Conference Invited Speaker**, “Robust Integrated Sensing and Communication Systems with Mobile Edge Computing”, in 2024 IEEE 24th International Conference on Communication Technology, Chengdu, China, Oct. 18-20, 2024
3. **Conference Keynote Speaker**, “Convergence of Generative AI and Federated Learning for Efficient Edge Intelligence,” in 2024 the 19th International Conference on Green, Pervasive, and Cloud Computing, Macao, China, Sept. 27-30, 2024
4. **Conference Invited Speaker**, “Revolutionizing Mobile Edge Networks with Generative AI: From Efficient Architectures to Emerging Applications”, in 2024 The 13th IEEE/CIC International Conference on Communications in China (ICCC’2024), Hangzhou, China, August 7-9, 2024
5. **Conference Invited Speaker**, “Convergence of Generative AI and Distributed Learning in Edge Intelligence,” in 2023 The 21st-Century Maritime Silk Road International Conference for Industry, Academia, and Research Collaboration, Shenzhen, China, Nov. 24-25, 2023
6. **Conference Keynote Speaker**, “On the Synergies of Generative AI and Federated Learning for Resource-Efficient Edge Intelligence”, in 2023 The 4th International Conference on Computer Engineering and Intelligent Control, Guangzhou, China, Oct. 20-22, 2023
7. **Conference Keynote Speaker**, “Green Federated Learning: A Wireless Power Transfer Approach”, in 2022 The 11th EAI International Conference on Game Theory for Networks (EAI GameNets’2022), July 7-8, 2022
8. **Conference Invited Speaker**, “Wireless Power Transfer assisted Federated Learning”, in the 2nd International Forum on Internet of Things and Intelligent Applications, May 1, 2022
9. **Conference Invited Speaker**, “Physical Layer Security Driven Energy Efficient Multi-access Mobile Edge Computing”, in Annual Conference of China Computer Federation on Computer Systems 2021, Dec. 15, 2021

SELECTED JOURNAL PUBLICATIONS

Note: “*” denotes the PhD/Master/RA under Yuan Wu’s supervision. Bold with underline denotes the corresponding author. Other Bold denotes the first author.

- ❖ Y. Chen, Y. Yang, J. Hu, **Yuan Wu**, and J. Huang, “A Game-Theoretical Approach for Distributed Computation Offloading in LEO Satellite-Terrestrial Edge Computing Systems,” accepted by **IEEE Transactions on Mobile Computing**, Jan. 2025. (JCR-Q1, IF: 7.7, CCF-A)
- ❖ B. Lu*, **Yuan Wu**, L. Qian, S. Zhou, H. Zhang, and R. Lu, “Multi-Agent DRL-based Two-Timescale Resource Allocation for Network Slicing in V2X Communications,” **IEEE Transactions on Network and Service**

Management, vol. 12, no. 6, pp. 6744-6758, Dec. 2024. (JCR-Q1, IF: 4.7)

- ✧ P. Li*, H. Dong*, L. Qian, S. Zhou, and Yuan Wu, “FlexGen: Efficient On-Demand Generative AI Service with Flexible Diffusion Model in Mobile Edge Networks,” accepted by *IEEE Transactions on Cognitive Communications and Networking*, Dec. 2024, DOI:10.1109/TCCN.2024.3522084 (JCR-Q1, IF: 7.4)
- ✧ X. Yang, Y. Fu, J. Zheng, Z. Xu, R. Shao, and Yuan Wu, “Optimal Resource Allocation for UAV-Relay-Assisted Mobile Crowdsensing,” accepted by *IEEE Transactions on Communications*, Dec. 2024, DOI:10.1109/TCOMM.2024.3522037 (JCR-Q1, IF: 7.2)
- ✧ C. Dou*, M. Dai*, N. Huang*, Yuan Wu, L. Qian, and T.Q.S. Quek, “Integrated Sensing and Two-Tier Task Offloading via Non-orthogonal Multiple Access: An Energy-Minimization Design,” *IEEE Transactions on Wireless Communications*, vol. 23, no. 12, pp. 19157-19171, Dec. 2024. (JCR-Q1, IF: 8.9)
- ✧ J. Zheng, T. Luan, G. Li, Z. Yin, Yuan Wu, and M. Dong, “ACDV: Adaptive Content Delivery for Vehicular Digital Twin Networks,” accepted by *IEEE Transactions on Vehicular Technology*, Dec. 2024. DOI: 10.1109/TVT.2024.3517657 (JCR-Q1, IF: 6.1)
- ✧ Y. Pan, Z. Su, J. Ni, Y. Wang, R. Li, and Yuan Wu, “Privacy-Enhanced and Efficient Federated Knowledge Transfer Framework in IoT,” *IEEE Internet of Things Journal*, vol. 11, no. 23, pp. 37630-37644, Dec. 2024. DOI:10.1109/IIOT.2024.3439599 (JCR-Q1, IF: 8.2)
- ✧ Q. Xu, J. Jin, Z. Su, R. Li, Y. Wang, D. Fang, and Yuan Wu, “Blockchain-Based Layered Secure Edge Content Delivery in UAV-Assisted Vehicular Networks,” accepted by *IEEE Transactions on Vehicular Technology*, Nov. 2024. DOI:10.1109/TVT.2024.3505982 (JCR-Q1, IF: 6.1)
- ✧ Q. Wan*, S. Ma, J. Fang, and Yuan Wu, “Robust Closed-Form Multibeam Beamforming Design for mmWave Dual-Function Radar-Communication Systems,” *IEEE Internet of Things Journal*, vol. 11, no. 22, pp. 36801-36816, Nov. 2024. DOI:10.1109/IIOT.2024.3430894. (JCR-Q1, IF: 8.2)
- ✧ F. Mou, J. Lou, Z. Tang, Yuan Wu, W. Jia, Y. Zhang, and W. Zhao, “Adaptive Digital Twin Migration in Vehicular Edge Computing and Networks,” accepted by *IEEE Transactions on Vehicular Technology*, Nov., 2024. DOI: 10.1109/TVT.2024.3492349 (JCR-Q1, IF: 6.1)
- ✧ B. Lu*, X. Huang*, Yuan Wu, L. Qian, N. Dusit, C.Z. Xu, “Cooperative Perception Aided Digital Twin Model Update and Migration in Mixed Vehicular Networks,” accepted by *IEEE Transactions on Intelligent Transportation Systems*, Nov. 2024. DOI:10.1109/TITS.2024.3496121 (JCR-Q1, IF: 7.9)
- ✧ Q. Wang, L. Qian, M. Li, J. Wei, and Yuan Wu, “Delay-Minimized Resource Allocation in Relay-Assisted NOMA-WPT Industrial IoT Networks,” accepted by *IEEE Transactions on Green Communications and Networking*, Oct. 2024. DOI:10.1109/TGCN.2024.3492258 (JCR-Q1, IF: 5.3)
- ✧ M. Wu*, R. Yang, X. Huang*, Yuan Wu, J. Kang, and S. Xie, “Joint Optimization of Model Partition and Resource Allocation for Split Federated Learning over Vehicular Edge Networks”, *IEEE Transactions on Vehicular Technology*, vol. 73., no. 10, pp. 15860-15865, Oct. 2024, DOI: 10.1109/TVT.2024.3399011 (JCR-Q1, IF: 6.1)
- ✧ S. Feng, X. Lu, D. Niyato, Yuan Wu, and X. Shen, “System-Level Security Solution for Hybrid D2D Communication in Heterogeneous D2D-Underlaid Cellular Network,” *IEEE Transactions on Wireless Communications*, vol. 23, no. 10, pp. 15054-15069, Oct. 2024. DOI:10.1109/TWC.2024.3423351 (JCR-Q1, IF: 8.9)
- ✧ N. Huang*, C. Dou*, Yuan Wu, L. Qian, “Joint Sensing, Communication and Computation for Edge Intelligence Oriented Symbiotic Communication with Intelligent Reflecting Surface,” *IEEE Transactions on Cognitive Communications and Networking*, vol. 10, no. 5, pp. 1650-1662, Oct. 2024. (JCR-Q1, IF: 7.4)
- ✧ L. Qian, X. Dong, M. Wu, Yuan Wu, and L. Zhao, “Long-Term Energy Consumption Minimization in NOMA-Enabled Vehicular Edge Computing Networks,” *IEEE Transactions on Intelligent Transportation*

Systems, vol. 25, no. 10, pp. 13717-13728, Oct. 2024 (JCR-Q1, IF: 7.9)

- ✧ C. Peng, Z. Wu, X. Huang*, Yuan Wu, J. Kang, Q. Huan, and S. Xie, “Joint Energy and Completion Time Difference Minimization for UAV-enabled Intelligent Transportation Systems: A Constrained Multi-Objective Optimization Approach,” *IEEE Transactions on Intelligent Transportation Systems*, vol. 25, no. 10, pp. 14040-14053, Oct. 2024 (JCR-Q1, IF: 7.9)
- ✧ G. Cheng, P. Li*, B. Tan, R. Yu, Yuan Wu, M. Pan, “Snowball Effect in Federated Learning: An Approach of Exponentially Expanding Structures for Optimizing the Training Efficiency,” accepted by *IEEE Transactions on Cognitive Communications and Networking*, Oct. 2024. DOI:10.1109/TCCN.2024.3480045 (JCR-Q1, IF: 7.4)
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SELECTED PATENTS

- ✧ Granted Chinese Patent, “A Method of Linear-Search based Optimal Downlink Non-orthogonal Multiple Access

Power Allocation with Data Security”, Patent Number: ZL201910342794.2, Granted Date: Jan. 2023.

- ✧ Granted Chinese Patent, “A Method for Optimal Joint Execution-Time and Computation-Resource Allocations for Non-orthogonal Multiple Access based Multi-task Offloading”, Patent Number: ZL201910268944.X, Granted Date: Apr. 2022.
- ✧ Granted Chinese Patent, “A Method for Optimal Downlink Non-orthogonal Multiple Access Transmission Time Allocation based on Deep Deterministic Gradient Policy”, Patent Number: ZL201810477038.6, Granted Date: Nov. 2021.
- ✧ Granted Chinese Patent, “An Energy Consumption Optimization Method for Dual Connectivity Data Offloading with Compressed Search Space and Energy Harvest” , Patent Number: ZL201711438905.7, Granted Date: June 2021.
- ✧ Granted Chinese Patent, “A Method for Selecting Wireless Access Point with Optimized Resource Allocation”, Patent Number: ZL201710559628.9, Granted Date: Aug. 2018.
- ✧ Granted US Patent, “Power Allocation Optimization under Constraints of Throughput Requirements and Interference Limit for Cognitive Radio Networks,” Patent Number: US9907029B2, Granted Date: Feb. 2018.
- ✧ Granted Chinese Patent, “A Method for Optimal Mobile Edge Computing Offloading Decision based on Deep Reinforcement Learning” Patent Number: ZL201810343312.0, Granted Date: June 2021.
- ✧ Granted Chinese Patent, “An Adaptive Transmission Scheduling Method for Energy Harvesting based Wireless Sensor Networks with Low Storage Space”, Patent Number: ZL201711088190.7, Granted Date: Jan. 2021,
- ✧ PCT application under review, “A Task-Time Optimization Approach in Edge Computing Networks Based on Deep Reinforcement Learning,”, Application Number: PCT230622GZ, June 2023.

INDUSTRIAL WHITE PAPER

- ✧ Jan. 2024, Industrial White Paper, “Artificial Intelligence Empowered Intelligent Ocean: Application Scenarios” , authored by X. Chen, Z. Pang, Y. Zhang, W. Liu, L. Ning, Yuan Wu, M. Liu, and R. Yang, Guangdong Planning and Designing Institute of Telecommunications Co. Ltd, University of Macau, Guangdong Provincial Key Laboratory of Intelligent Equipment for South China Sea Marine Ranching, and Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)

TEACHING

- ✧ PG-Course CISC7102: Computer Networks and Internet
- ✧ PG-Course CISC7014: Advanced Topics in Computer Science
- ✧ PG-Course CISC7002: Computer Communications and Networks
- ✧ UG-Course CISC4000: Graduation Project
- ✧ UG-Course CISC3027: Special Topics in Computer and Information Science
- ✧ UG-Course CISC3018: Cloud Computing and Big Data System
- ✧ UG-Course CISC3001: Computer Networks
- ✧ PG Course: Introduction to Internet of Things (before joining UM)
- ✧ PG Course: Sensor Networks (before joining UM)
- ✧ PG Course: Introduction to “Internet +” (before joining UM)
- ✧ PG Course: Digital Communication Systems (before joining UM)
- ✧ UG Course: Data Communications and Computer Networks (before joining UM)
- ✧ UG Course: Principle of Communications for Foreign Students (before joining UM)

SUPERVISED & GRADUATED Posdoc/RA/PhD & Master STUDENTS

- ✧ **Posdoc**, Minghui Dai, 2021-2024, now Associate Professor, Donghua University, Shanghai
- ✧ **Posdoc**, Bo Fan, 2020-2022, now Associate Professor, Beijing University of Technology, Beijing
- ✧ **Posdoc**, Xumin Huang 2023-2024, now Associate Professor, Guangdong University of Technology, Guangzhou
- ✧ **Research Assistant**, Maoqiang Wu, 2022-2023, now Professor, South China Normal University, Guangzhou
- ✧ **Research Assistant**, Zhiqing Tang, 2022-2023, now Assistant Professor, Beijing Normal University, Beijing
- ✧ **Graduated PhD**, Ning Huang, 2020-2024, now Assistant Professor, Harbin Institute of Technology, Shenzhen
- ✧ **Graduated PhD**, Tianshun Wang, 2020-2023, now Assistant Professor, Nanjing University of Posts and Telecommunications, Nanjing
- ✧ **Graduated PhD**, Yang Li, 2019-2023, now Assistant Professor, Southwest Jiaotong University, Chengdu
- ✧ **Graduated PhD (co-supervised)**, Changsheng Yu 2015-2019, with Nokia Siemens Networks, Hangzhou
- ✧ **Graduated Master student**, Zhishen Luo, 2021-2023, now PhD candidate at Hong Kong University of Science and Technology (Guangzhou), Guangzhou
- ✧ **Graduated Master student**, Guangyuan Ji, 2020-2023, now PhD candidate at Zhejiang University, Hangzhou
- ✧ **Graduated Master student**, Yuxiao Song, 2020-2022, now PhD candidate at Harbin Institute of Technology, SZ
- ✧ **Graduated Master student**, Jiayi Guo, Master, 2020-2023, now PhD candidate at University of Macau, Macau
- ✧ **Graduated Master student**, Pengcheng Tan, 2020-2023, now Research Associate at BoardWare Intelligence Technology Limited (Macau)
- ✧ **Graduated Master student**, Ruiqi Yang, Master, 2021-2023, now Xiaomi Automobile Co., Ltd
- ✧ **Graduated Master student**, Xini Xiang, Master, 2020-2023, now Technician at Southwest University, Chongqing
- ✧ **Graduated Master student**, Ningning Yu, Master, 2017-2019, now PhD candidate at Zhejiang University
- ✧ **Graduated Master student**, Weicong Wu, Master, 2016-2018, now with Baidu Inc.
- ✧ **Graduated Master student**, Kuanyang Guo, Master, 2014-2016, now with Didi Chuxing Technology Co. Ltd
- ✧ **Graduated Master student**, Jiachao Chen, Master, 2013-2015, now with Cainiao-Alibaba Group, Hangzhou
- ✧ **Graduated Master student**, Qinghua Zhu, Master, 2012-2014, China Telecom, Hangzhou

Undergoing Posdoc/RA/PhD & Master STUDENTS

- ✧ **Posdoc**, Qian Wan, since 2024, Macao Youth Scholar Program
- ✧ **Posdoc**, Biqian Feng, since 2024
- ✧ **PhD student**, Chenglong Dou, since 2022, working on integrated sensing and communication systems
- ✧ **PhD student**, Binbin Lu, since 2022 to Present, working on Vehicle-Edge-Cloud Collaborative Networks
- ✧ **PhD student**, Hanwen Zhang, since 2023 to Present, working on generative AI for vehicular networks
- ✧ **PhD student**, Peichun Li, since 2024, working on edge intelligence and generative AI
- ✧ **PhD student**, Huanyu Liu, since 2024, working on integrated sensing and communication systems
- ✧ **Master student**, Honghao Wang, since 2022, working on integrated sensing and communication systems
- ✧ **Master student**, Zhuohang Du, since 2022, working on edge intelligence
- ✧ **Master student**, Huakang Zhang, since 2023, working on generative AI
- ✧ **Master student**, Yucheng Liu, since 2024, working on generative AI
- ✧ **Master student**, Yujing Li, since 2024, working on maritime communications
- ✧ **Master student**, Lingfeng Wu, since 2024, working on integrated sensing and communication systems