

Chao Ren

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CURRICULUM VITAE

Research Interests

Cooperative Communications, Edge Computing, Integration of Communication and Sensing

Appointments

- 01/2023– Present **Supervisor of Postgraduate**, School of Computer and Communication Engineering, University of Science and Technology Beijing, China
- 12/2019– Present **Assistant Professor**, School of Computer and Communication Engineering, University of Science and Technology Beijing, China | Teaching: Multimedia Communication Technology (Undergraduate Student) and the Frontier of Information Science (Postgraduate Student)
- 10/2017– 12/2019 **Post-doctoral Research Fellow**, School of Computer and Communication Engineering, University of Science and Technology Beijing, China | Supervisor: **Prof. Haijun Zhang**

Education

- 09/2012– 09/2017 **Ph.D.**, Xidian University, Xi'an, China.
Major: Communications and Information Systems | Supervisor: **Prof. Jian Chen**
- 09/2015– 08/2017 **Joint Ph.D. Student**, University of Alberta, Edmonton, Canada.
Major: Wireless Telecommunications | Supervisor: **Prof. Chintha Tellambra**
- 09/2011– 09/2012 **Master Degree Candidate of Engineering**, Xidian University, Xi'an, China.
Major: Communications and Information Systems | Supervisor: **Prof. Jian Chen**
- 09/2007– 07/2011 **Bachelor of Engineering**, Ocean University of China, Qingdao, China.
Major: Telecommunications Engineering

Professional Activities

- ED1 **Review Editor**, *Frontiers in Computer Science*
- MB1 **EAI Senior Member**, *European Alliance for Innovation*
- CM1 **TPC Member**, *IEEE Vehicular Technology Conference (VTC2017-Fall)*
- CM2 **TPC Member**, *IEEE Vehicular Technology Conference (VTC2018-Spring)*
- CM3 **TPC Member**, *IEEE Vehicular Technology Conference (VTC2018-Fall)*
- CM4 **TPC Member**, *IEEE International Communications Conference (ICC2019)*
- CM5 **TPC Member**, *IEEE International Communications Conference (ICC2020)*
- CM6 **TPC Member**, *International Conference on Mobility, Sensing and Networking (MSN2020)*
- CM7 **TPC Member**, *IEEE Vehicular Technology Conference (VTC2020-Spring)*
- CM8 **TPC Member**, *IEEE Vehicular Technology Conference (VTC2021-Spring)*
- CM9 **TPC Member**, *IEEE Vehicular Technology Conference (VTC2021-Fall)*
- CM10 **TPC Member**, *IEEE Wireless Communications & Networking Conference (WCNC2021)*
- CM11 **TPC Member**, *IEEE International Communications Conference (ICC2021)*
- CM12 **TPC Member**, *IEEE International Communications Conference (ICC2022)*
- CM13 **TPC Member**, *IEEE Wireless Communications & Networking Conference (WCNC2022)*

- CM14 **TPC Member**, *IEEE International Workshop on Computer-Aided Modeling and Design of Communication Links and Networks (CAMAD2022)*
- CM15 **TPC Member**, *IEEE International Communications Conference (ICC2023)*
- CM16 **TPC Member**, *IEEE Wireless Communications & Networking Conference (WCNC2023)*

Projects

- 01/2023–
Present **Principle Invstigator**: *National Natural Science Foundation of China* (Grant No. 62201034)
- 12/2021–
Present **Principle Invstigator**: *Beijing Municipal Natural Science Foundation* (Grant No. L212004-03)
- 04/2020–
12/2022 **Principle Invstigator**: *Guangdong Province Basic and Applied Basic Research Fund (Joint Fund)* (Grant No. 2019A1515111086)
- 06/2018–
05/2020 **Principle Invstigator**: *Fundamental Research Founds for the Central Universities* (Grant No. FRF-TP-18-015A1)
- 06/2018–
12/2019 **Principle Invstigator**: *China Postdoctoral Science Foundation funded project (First Class)* (Grant No. 2018M630072)

Publications

- [J11] **Chao Ren**, L. Liu and H. Zhang*, "Multimodal Interference Compatible Passive UAV Network Based on Location-Aware Flexibility." *IEEE Wireless Communications Letters*, 2023
- [J10] **Chao Ren**, J. Hou and B. Pan*, "Channel modeling of wireless 3D-chip based on ray-tracing." *Microelectronics Journal*, 105306, 2021
- [C3] **Chao Ren**, J. Hou. "Edge Network Extension Based on Multi-domains Fusion and LEO Satellite." *IoT as a Service: 6th EAI International Conference, IoTaaS 2020, Xi' an, China, November 19–20, 2020*, pp. 633-643
- [C2] **Chao Ren**, H. Xu. "Spectrum Allocation Algorithm for Energy-Constrained UAV in Interweave Cognitive IoT Network Based on Satellite Coverage." *IoT as a Service: 6th EAI International Conference, IoTaaS 2020, Xi' an, China, November 19–20, 2020*, pp. 624-632
- [J9] J. Wen*, J. Weng C. Tong, **Chao Ren**, and Z. Zhou, "Sparse Signal Recovery with Minimization of 1-Norm Minus 2-Norm." *IEEE Transactions on Vehicular Technology*, vol. 68, no.7, 2019, pp. 6847-6854, July 2019
- [J8] **Chao Ren**, H. Zhang*, J. Chen and C. Tellambura. "Exploiting Spectrum Access Ability for Cooperative Spectrum Harvesting". *IEEE Transactions on Communications*, vol. 67, no. 3, pp. 1845-1857, Mar. 2019.
- [J7] **Chao Ren**, H. Zhang*, J. Wen, J. Chen, and C. Tellambura."Successive Two-Way Relaying for Full-Duplex Users with Generalized Self-Interference Mitigation." *IEEE Transactions on Wireless Communications.*, vol. 18, no. 1, pp. 63 - 76, Jan. 2019.
- [J6] J. Wen, **Chao Ren***(co-first author), and A. K. Sangaiah. "Energy-Efficient Device-to-Device Edge Computing Network: An Approach Offloading Both Traffic and Computation." *IEEE Communications Magazine.* , vol. 56, no. 9, pp. 96-102, Sep. 2018.
- [J5] **Chao Ren**, J. Chen*, Y. Kuo, D. Wu, and M. Yang. "Recommender system for mobile users." *Multimedia Tools Appl.*, vol. 77, no. 4, pp. 4133-4153, Feb. 2018.
- [J4] **Chao Ren**, J. Chen and C. Tellambura*. "Spectrum Sharing with Device-to-Device Successive Relaying and Hybrid Complex Field Network Coding." *IEEE Transactions on Vehicular Technology*, vol. 66, no. 9, pp. 7947-7963, Sep. 2017.
- [J3] **Chao Ren**, J. Chen*, Y. Kuo, L. Yang, and L. Lyu. "Three-path successive relaying protocol with blind inter-relay interference cancellation and cooperative non-coherent detection." *Wireless Commun. Mobile Comput.*, vol. 16, no. 17, pp. 2778-2791, Dec. 2016.

- [C1] Y. Wang, J. Chen*, **Chao Ren**, and H. Chang. "Green Distributed Power Control Algorithm for Multi-User Cognitive Radio." *Communications and Networking: 11th EAI international Conference, ChinaCom 2016* Chongqing, China, September 24-26, 2016, Proceedings, Part II, Springer International Publishing, pp. 97–106.
- [J2] J. Chen*, L. Lv, Y. Liu, Y. Kuo, and **Chao Ren**. "Energy efficient relay selection and power allocation for cooperative cognitive radio networks." *IET Commun.*, vol. 9, no. 13, pp. 1661-1668, Sep. 2015.
- [J1] **Chao Ren**, J. Chen*, Y. Kuo, and L. Yang. "Differential successive relaying scheme for fast and reliable data delivery in vehicular ad hoc networks." *IET Commun.*, vol. 9, no. 8, pp. 1088-1095, May 2015.