Dr. Wei Guo

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Education

The Chinese University of Hong Kong, Shenzhen (CUHK-Shenzhen)	Jan. 2020 – Jul. 2023
Ph.D., Computer and Information Engineering. Advisor: Prof. Chuan Huang	Shenzhen, China
University of Electronic Science and Technology of China (UESTC)	Sept. 2013 – Jun. 2017
B.Eng., Electrical Engineering	Chengdu, China

Academic Positions

Hong Kong University of Science and Technology	Sept. 2023 – Present
Postdoctoral Fellow. Advisors: Prof. Khaled B. Letaief and Prof. Jun Zhang	Hong Kong SAR, China

Academic Visits

Purple Mountain Laboratories	Sept. 2021 – Nov.2021
Visiting student for National Key Research and Development Program of China	Nanjing, China
The Future Network of Intelligence Institute (FNii), CUHK-Shenzhen	Jun. 2019 – Dec.2019
Visiting student. Advisors: Prof. Chuan Huang and Prof. Shuguang Cui	Shenzhen, China
Shenzhen Reserach Institute of Big Data (SRIBD)	Feb. 2017 – Jun. 2017
Visiting student. Advisors: Prof. Wenye Li and Prof. Shuguang Cui	Shenzhen, China

Current Research Interests

Wireless Communications, Over-the-Air Computing, Federated Learning, Wireless AI

Publications

Journals:

- **Wei Guo**, Chuan Huang, Xiaoqi Qin, Lian Yang, and Wei Zhang, "Dynamic Clustering and Power Control for Two-Tier Wireless Federated Learning," *IEEE Trans. Wireless Commun.* (TWC), early access, doi: 10.1109/TWC.2023.3288606, 2023.
- **Wei Guo**, Ran Li, Chuan Huang, Xiaoqi Qin, Kaiming Shen, and Wei Zhang, "Joint Device Selection and Power Control for Wireless Federated Learning," *IEEE J. Sel. Areas Commun.* (JSAC), vol. 40, no. 8, pp. 2395-2410, Aug. 2022.

- **Wei Guo**, Han Zhang, and Chuan Huang, "Energy Efficiency of Two-Way Communications under Various Duplex Modes," *IEEE Internet Things J.* (IoT-J), vol. 8, no. 3, pp. 1921-1933, Feb. 2021.

Conference Proceedings:

- **Wei Guo**, Ran Li, Chuan Huang, Xiaoqi Qin, Kaiming Shen, and Wei Zhang, "Optimized Device Selection and Power Control for Wireless Federated Learning," in *Proc. IEEE Glob. Commun. Conf. (Globecom)*, Dec. 2022.

- **Wei Guo**, Chuan Huang, Xiaoqi Qin, Lian Yang, and Wei Zhang, "Dynamic Clustering and Power Control for Two-Tier Over-the-Air Federated Learning," in *Proc. IEEE/CIC Int. Conf. Commun. China (ICCC)*, Aug. 2022.

- **Wei Guo** and Chuan Huang, "Energy Efficiency of Full-Duplex Two-Way Channels," in *Proc. Glob. Conf. Signal Inf. Process. (GlobalSIP)*, Nov. 2019.

Patents:
- CN patent: "一种面向无线联邦学习的用户协同传输方法", 黄川, 崔曙光, 郭玮. 专利申请号: 202211032064.0, 2022.

Teachings

Teaching assistant at CUHK-Shenzhen:

EIE4006 Performances Evaluation of Communication Networks	Sum' 2020-21
CIE6126 Performances Analysis of Computer and Communication Networks	Sum' 2020-21
EIE3001 Signals and Systems	Spr' 2021

Awards

Exemplary Reviewer of IEEE Wireless Communications Letters	2020
Outstanding Bachelor's Degree Thesis in UESTC	2017

Academic Services

TPC Member:
- IEEE Global Communications Conference (Globecom): 2019-2023

- IEEE/CIC International Conference on Communications in China (ICCC): 2019-2023

Journal Referee:
- IEEE Transactions on Wireless Communications

- IEEE Wireless Communications Letters

- IEEE Systems Journal

- China Communications

- Journal of Communications and Information Networks

Presentations

2022 IEEE Globecom, Rio de Janeiro, Brazil, virtual presentation
2022 IEEE/CIC ICCC, Foshan, China, Oral presentation
2019 IEEE GlobalSIP, Ottawa, Canada, Oral presentation