Dingjia Lin

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Education

PhD **University of Manchester, UK** 03/2021 – 07/2025 (Expected)
- Supervisor: Prof. Zhiguo Ding (FIEEE)
- Department of Electrical and Electronic Engineering

MSC **University of Southampton, UK** 09/2019 – 12/2020
- School of Electronics and Computer Science
- Mobile Communication and Smart Networking

MSC **University of Sheffield, UK** 09/2017 – 12/2018
- Department of Electronic and Electrical Engineering
- Wireless Communication System

BEng **Chongqing University of Posts and Telecommunications, China** 09/2013 – 06/2017
- College of Communication and Information Engineering
- Communication Engineering

Experience

King's College London, Research Associate London, UK
Nov. 2024 – Now
- Research on the optimization process edge computing in the cell-free and massive MIMO networks.

Research Interests

Non-Orthogonal Multiple Access (NOMA), Backscatter Communication (BackCom), Convex Optimization, Non-Convex Optimization, Matching Theory, Cognitive Radio, Fluid Antenna System (FAS), Cell-Free, Massive MIMO, Edge Computing, Visible Light Communication (VLC)

Publications

[J3] Energy-Efficiency Maximization in Backscatter Communication Based Non-Orthogonal Multiple Access System: Dinkelbach and Successive Convex Approximation Approaches Aug 2024

Dingjia Lin, Tianqi Wang, Kaidi Wang, Zhiguo Ding

in IET Signal Processing, 2024, 4107801, 12 pages

doi: 10.1049/2024/4107801

[C1] Uplink Data Rate Maximization with Channel Uncertainties in BackCom NOMA System Jul 2024

Dingjia Lin, Suhaib M. Al-Basit, Kaidi Wang, Zhiguo Ding

2024 International Symposium on Wireless Communication Systems (ISWCS), Rio de Janeiro, Brazil, 2024, pp. 1-6

doi: 10.1109/ISWCS61526.2024.10639114

[J2] Uplink Data Rate Maximization in Multi-Cell BackCom NOMA Systems Jan 2024

Dingjia Lin, Kaidi Wang, Tianqi Wang, Zhiguo Ding

in IEEE Open Journal of the Communications Society, vol. 5, pp. 526-539, 2024

doi: 10.1109/OJCOMS.2023.3349277

[J1] Beamforming Design for BackCom Assisted NOMA Systems May 2023

Dingjia Lin, Kanapathippillai Cumanan, Zhiguo Ding

in IEEE Wireless Communications Letters, vol. 12, no. 9, pp. 1494-1498, Sept. 2023

doi: 10.1109/LWC.2023.3279668

Publications (Submitted and in Preparation)

[P1] EE Maximization with Imperfect CSI at Transmitter in BackCom NOMA System Submitted

Dingjia Lin, Suhaib M. Al-Basit, Kaidi Wang, Zhiguo Ding

in IEEE Transactions on Vehicular Technology

[P2] Power Minimization in FAS Assisted NOMA Networks in Preparation

Dingjia Lin, Kaidi Wang, Tianqi Wang, Zhiguo Ding

[P3] Cell-Free Networks Versus Massive MIMO: Optimizing Power Efficiency and Task Offloading in Preparation

Dingjia Lin, Stefano Buzzi, Toktam Mahmoodi

Additional Skills

IT Skills: Python, MATLAB, LaTeX, MS Office, Photoshop, Lightroom.

Languages: English – fluent, Chinese – native.

Interests: Photography; Reading; Astronomical Observation; Writing

Referee

Prof. Zhiguo Ding: School of Electrical and Electronic Engineering, The University of Manchester, Manchester, M13 9PL, UK. Email: zhiguo.ding@manchester.ac.uk

Prof. Mohammed El-Hajjar: School of Electronics and Computer Science, Faculty of Engineering and Physical Sciences, University of Southampton, Southampton, SO17 1BJ, UK. Email: meh@ecs.soton.ac.uk