Hanting Ye

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Education

Delft University of Technology (TU Delft)		
Ph. D	/	Oct.01 2020-present
Advisor: Qing Wang		
University of Electronic Science and Technology of China (UESTC)	GPA 3.83/4 Top 3%	Sept.01 2017 -June.30 2020 | Detailed List of Exams
M.S. in Electronics and Communication Engineering		
Advisor: Xin Kang		
Chongqing University (CQU)	GPA 3.65/4 Top 3%	Sept.01 2013 -June.30 2017 | Detailed List of Exams
B.S. in Communication Engineering		
Thesis Advisor: Jinglan Ou		

Publication

- **H.-T. Ye**, X. Kang, J. Joung and Y.-C. Liang, "Optimization for Full-Duplex Rotary-Wing UAV-Enabled Wireless-Powered IoT Networks," in IEEE Transactions on Wireless Communications, vol. 19, no. 7, pp. 5057-5072, July 2020.
- **H.-T. Ye**, X. Kang, J. Joung and Y.-C. Liang, "Joint Uplink and Downlink 3D Optimization of an UAV Swarms for Wireless-powered NB-IoT", IEEE Global Communications Conference (GLOBECOM'19)
- **H.-T. Ye**, X. Kang, J. Joung and Y.-C. Liang, "Optimal Time Allocation for Full-duplex Wireless-Powered IoT Networks with Unmanned Aerial Vehicle", IEEE International Conference on Communications (ICC'19)
- **H.-T. Ye**, X. Kang, Y.-C. Liang, and J. Joung, "Full-duplex Wireless-powered IoT Networks with Unmanned Aerial Vehicle", IEEE International Conference on ICT Convergence (Invited paper, ICTC'18)
- J. Wang, **H. -T. Ye**, X. Kang, S. Sun and Y. -C. Liang, "Cognitive Backscatter NOMA Networks With Multi-Slot Energy Causality," in IEEE Communications Letters, vol. 24, no. 12, pp. 2854-2858, Dec. 2020.
- **H. -T. Ye**, X. Kang, J. Joung and Y. -C. Liang, "Optimization for Wireless-Powered IoT Networks Enabled by an Energy-Limited UAV Under Practical Energy Consumption Model," in IEEE Wireless Communications Letters, vol. 10, no. 3, pp. 567-571, March. 2021.
- **H.-T. Ye**, X. Kang, J. Joung and Y.-C. Liang, "Joint Uplink-and-Downlink Optimization of 3D UAV Swarm Deployment for Wireless-Powered IoT Networks", IEEE Internet of Things Journal, 2021 (Early Access).

Research Experience

- Topic: Optical Transport Network and Network Value Evaluation (National Mathematical Contest)
  - Established single-span and multi-span transmission models for optical transmission links.
  - Designed a network value model and solved it with genetic algorithm.
  - Designed an unequal probability QAM method to improve system performance.
- Topic: Resource Allocation and Optimization of UAV-aided Full-duplex Wireless Power Communication Network
  - Designed a time allocation algorithm to improve the system performance under sparse user distribution condition based on the coupling relationship between hover time and flight time of the UAV.
  - Designed a novel framework by jointly optimizing the 3D placement of the UAVs, device-and-UAV association,

scheduling in uplink and time allocation in downlink and uplink to improve the system performance under dense user distribution condition.

- Topic: Research on Key Technologies of Passive IoT and Cellular System Convergence (Huawei Project)
  - Completed channel estimation and signal detection performance analysis of OFDM-based Ambient Backscatter system under 3GPP time-varying channel.
  - Designed new pilot policy for primary transmitter and backscatter devices to reduce pilot overhead when the number of backscatter devices is huge.
- Topic: Undergraduate Thesis on Implementation of 802.11ac Standard WLAN Synchronization System
  - System implementation of OFDM receiver synchronization algorithms (S & C, Minn, Park, MNC).

Programming skills

Matlab	• All my research work is simulated by Matlab. • Learned Matlab parfor-loop parallel operation skills, which can greatly reduce loop runtime from the Huawei project (Research on Key Technologies of Passive IoT and Cellular System Convergence).
C/C++	• Learned in undergraduate course: C/C++ Programming, Object-Oriented Programming and C++. • Passed the National Computer Rank Examination level 2 (C, C ++) and level 3(embedded system development technology, network technology).
VHDL	• Learned in undergraduate course: Fundamentals of EDA technology.

Competition Activities

■ Participated in the first mobile app design competition of Chongqing University	1st Prize	2014
■ Participated in Electronic Skills Competition of Chongqing University	Honorable Mention	2015
■ Participated in the China Undergraduate Mathematical Contest in Modelling	1st Prize	2015
■ Participated in the International Mathematical Contest in Modeling	Honorable Mention	2016
■ Participated in the 15th China Graduate Mathematical Contest in Modelling	1st Prize (top 1%)	2018
■ Participated in the HUAWEI Code Craft	Silver Medal	2019

Scholarships and Certificates

• Outstanding Student Awards of UESTC	2018, 2019
• The 1st Class Master Degree Scholarship of UESTC	2018, 2019
• Enrollment Scholarship for Master Student	2017
• Outstanding Graduates Awards of Chongqing province (top 0.5%)	2017
• Outstanding Graduates Awards of CQU	2017
• Outstanding Student Awards of CQU	2016
• National Scholarship (top 1%)	2016
• The 1st Class Bachelor Degree Scholarship of CQU (top 2%)	2016
• National Inspirational Scholarship (top 5%)	2015
• The 2nd Class Bachelor Degree Scholarship of CQU (top 6%)	2014, 2015
• 1st prize in National Chemistry Olympiad in Senior (Sichuan Division)	2013
• 2nd prize in National Physics Olympiad in Senior (Sichuan Division)	2013
• IELTS: 6.5 (Reading: 6.5; Listening: 6.5; Writing: 7; Speaking: 5.5)	2019.12

Detailed List of Relevant Exams

Master’s Degree in Electronics and Communication Engineering

Exam	Grade
Matrix Theory	82
Random Processes and its Applications	83.9
Optimization Theory and Application	84
Digital Communications	90
Modern Wireless and Mobile Communication Systems	90
Information Theory	94
Signal Detection and Estimation	94

Bachelor's Degree in Communication Engineering

Exam	Grade
Advanced Mathematics I	87
Engineering Mathematical Analysis II	90
Discrete Mathematics	98
College Physics I	87
College Physics II	93
Probability and Statistics	84
Complex Variable Function & Integral Transformation	89
Signals & Systems	94
Random Signal Analysis	99
Digital Communication Principles	90
Digital Signal Processing	94
Computer Communication Network	95
Microwave Technique	99
Mobile Communication System	94
C/C++ Programming	87
Object-Oriented Programming and C++	94
Fundamentals of EDA technology	87