Jinchen Wang

Email: jinchen@mit.edu • Phone: 857-285-8972
Address: 50 Vassar Street, Building 38, Room 265, Cambridge, MA 02139

EDUCATION

Massachusetts Institute of Technology, Cambridge, MA.
Ph.D. in Electrical Engineering and Computer Science — Present
University of Electronic Science and Technology of China, Chengdu, China.
B.Eng. in Electronic Information Engineering — 2019
University of Glasgow, Glasgow, U.K.
B.Eng. (first-class honors) in Electronics and Electrical Engineering — 2019

EXPERIENCE

Research Experience

Electrical Engineering and Computer Science, Massachusetts Institute of Technology, Cambridge, U.S.
Visiting Student — Aug. 2018 - Oct. 2018
Research Assistant — Sep. 2019 - Present
School of Electronic Science and Engineering, University of Electronic Science and Technology of China, Chengdu, China.
Visiting Student — Mar. 2015 - Aug. 2015
Research Assistant — Sep. 2015 - Jul. 2019
School of Engineering, University of Glasgow, Glasgow, U.K.
Visiting Student — Jan. 2018
Institute of Physics, Chinese Academy of Sciences, Beijing, China.
Visiting Student — Jul. 2016 - Nov. 2016

Teaching Experience

Yingcai Honors School, University of Electronic Science and Technology of China, Chengdu, China.
Teaching Assistant — Spring 2018
• E0004360 Foundations of Analog and Digital Electronic Circuits
School of Electronic Science and Engineering, University of Electronic Science and Technology of China, Chengdu, China.
Teaching Assistant — Spring 2018
• R0212450 Foundations of Analog and Digital Electronic Circuits

Other Experience

IEEE ISCAS
Reviewer
IEEE IECON
Reviewer
IEEE Microwave and Wireless Components Letters
Reviewer
Journal of Electromagnetic Waves and Applications
Reviewer
IEEE MTT-S Undergraduate/Pre-graduate Scholarship
Recipient

PUBLICATIONS

Journal Articles

• X. Yi, **J. Wang**, M. Colangelo, C. Wang, K. E. Kolodziej, R. Han, "Realization of In-Band Full-Duplex Operation at 300 and 4.2 K Using Bilateral Single-Sideband Frequency Conversion," *IEEE Journal of Solid-State Circuits (JSSC)*, vol. 56, no. 5, pp. 1387-1397, Mar. 2021.

• C. Li, F. You, T. Yao, **J. Wang**, W. Shi, J. Peng, S. He, "Simulated Annealing Particle Swarm Optimization for High-Efficiency Power Amplifier Design," *IEEE Transactions on Microwave Theory and Techniques (TMTT)*, vol. 69, no. 5, pp. 2494-2505, Mar. 2021.

• X. Yi, C. Wang, X. Chen, **J. Wang**, J. Grajal, R. Han, "A 220-to-320-GHz FMCW

radar in 65-nm CMOS using a frequency-comb architecture," *IEEE Journal of Solid-State Circuits (JSSC)*, vol. 56, no. 2, pp. 327-339, Sep. 2020.

• C. Li, F. You, **J. Wang**, J. Huang, S. He, "Third-order complex delta-sigma modulator with arbitrary poles and zeros placement," *Electronics Letters (EL)*, vol. 56, no. 2, pp. 71-73, Jan. 2020.

• J. Peng, S. He, W. Shi, T. Yao, J. Wu, **J. Wang**, "Adaptive signal separation for dual-input Doherty power amplifier," *IEEE Transactions on Microwave Theory and Techniques (TMTT)*, vol. 68, no. 1, pp. 121-131, Nov. 2019.

• C. Li, F. You, J. Peng, **J. Wang**, M. F. Haider, S. He, **J. Wang**, "Co-design of matching sub-networks to realize broadband symmetrical Doherty with configurable back-off region," *IEEE Transactions on Circuits and Systems II: Express Briefs (TCAS-II)*, vol. 67, no. 10, pp. 1730-1734, Oct. 2019.

• W Shi, S He, J Peng, **J. Wang**, M. F. Haider, S. He, **J. Wang**, "Digital dual-input Doherty configuration for ultrawideband application," *IEEE Transactions on Industrial Electronics (TIE)*, vol. 67, no. 9, pp. 7509-7518, Oct. 2019.

• C. Li, F. You, S. He, X. Tang, W. Shi, and **J. Wang**, "High-Efficiency Power Amplifier Employing Minimum-Power Harmonic Active Load Modulator," *IEEE Transactions on Circuit and System II: Express Briefs (TCAS-II)*, vol. 67, no. 9, pp. 7509-7518, Nov. 2018.

• **J. Wang**, S. He, F. You, W. Shi, J. Peng, and C. Li, "Codesign of High-Efficiency Power Amplifier and Ring-Resonator Filter Based on a Series of Continuous Modes and Even-Odd-Mode Analysis," *IEEE Transactions on Microwave Theory and Techniques (TMTT)*, vol. 66, no. 6, pp. 2867-2878, Jun. 2018.

• **J. Wang**, S. He, and D. Gan, "A 2.4/3.5/5.2/5.8-GHz Quad-Band BPF Using SLRs and Triangular Loop Resonators," *Electronics Letters (EL)*, vol. 54, no. 5, pp. 299-301, Mar. 2018.

• **J. Wang**, Y. Guan, H. Yu, N. Li, S. Wang, C. Shen, Z. Dai, D. Gan, R. Yang, S. He, and G. Zhang, "Transparent Graphene Microstrip Filters for Wireless Communications," *Journal of Physics D: Applied Physics (JPDAP)*, vol. 50, no. 6, pp. 34LT01, Aug. 2017.

• D. Gan, S. He , Z. Dai, and **J. Wang**, "A Quad-Band Bandpass Filter Using Split-Ring Based on T-Shaped Stub-Loaded Step-Impedance Resonators," *Microwave and Optical Technology Letters (MOTL)*, vol. 59, no. 8, pp. 2099-2104, May. 2017.

Conference Papers

• X. Yi, **J. Wang**, C. Wang, K. E. Kolodziej, and R. Han, "A 3.4–4.6 GHz in-band full-duplex front-end in CMOS using a bi-directional frequency converter," *2020 IEEE Radio Frequency Integrated Circuits Symposium (RFIC)*, 47-50, 2020.

• X. Yi, C. Wang, M. Lu, **J. Wang**, J. Grajal, and R. Han, "4.8 a terahertz FMCW comb radar in 65nm CMOS with 100GHz bandwidth," *2020 IEEE International Solid-State Circuits Conference (ISSCC)*, 90-92, 2020.

• C. Li, F. You, X. Zhu, **J. Wang**, and S. He, "Design of Broadband Doherty Power Amplifier with Extended Efficiency Range Employing Asymmetric Structure," *Asia-Pacific Microwave Conference (APMC)*, 452-454, 2018.

• **J. Wang**, Y. Guan, and S. He, "Transparent 5.8 GHz Filter Based on Graphene," *IEEE International Microwave Symposium (IMS)*, 1653-1655, 2017.