

Li, Dong

Associate Professor

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I am always looking for self-motivated students with a strong mathematics background who are interested in pursuing the Master/Ph.D. degrees under my supervision. PostDocs and RAs are also welcome. Competitive financial assistance is guaranteed for excellent candidates.

Education

Ph.D. in Electronics and Communication Engineering, Sun Yat-Sen University, China, 2010.

M.E. in Electronics and Communication Engineering, Sun Yat-Sen University, China, 2006.

B.E. in Communication Engineering, Yunnan University, China, 2004.

Teaching

Principle of Communications

Digital Communications Systems

Mobile Communications Systems

Research Interests

Next-Generation Wireless Communications

Communications for Internet of Things

Machine Learning for Intelligent Communications

Appointments

Associate Professor, Faculty of Information Technology, Macau University of Science and Technology, Macau, China, 07/2017 – Present.

Assistant Professor, Faculty of Information Technology, Macau University of Science and Technology, Macau, China, 09/2010 – 06/2017.

Part-Time Lecturer, Faculty of Information Technology, Macau University of Science and Technology, Macau, China, 01/2010 – 06/2010.

Visiting Researcher, Institute for Infocomm Research (I2R), Agency for Science, Technology and Research (A*STAR), Singapore, 07/2012 – 08/2012.

Publications (Selected)

D. Li, W. Peng, and F. Hu, "Capacity of Backscatter Communication Systems with Tag Selection," accepted by *IEEE Transactions on Vehicular Technology*, 2019. [SCI, EI]

D. Li and Y.-C. Liang, "Price-Based Bandwidth Allocation for Backscatter Communication with Individual Bandwidth Constraints," accepted by *IEEE Transactions on Wireless Communications*, 2019. [SCI, EI]

D. Li, "Capacity of Backscatter Communication with Frequency Shift over Rician Fading Channels," accepted by *IEEE Wireless Communications Letters*, 2019. [SCI, EI]

Y. Ma, Z. Quan, **D. Li**, and B. Zhang, "Minimizing Misclassification for Cooperative Spectrum Sensing using M-ary Hypothesis Testing," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 8, pp. 8210-8215, Aug. 2019. [SCI, EI]

H. Liu, F. Hu, S. Qu, Z. Li, and **D. Li**, "Multipoint Wireless Information and Power Transfer to Maximize Sum-Throughput in WBAN with Energy Harvesting," *IEEE Internet of Things Journal*, vol. 6, no. 4, pp. 7069-7078, August, 2019. [SCI, EI]

J. Li, C. Yuen, **D. Li**, H. Zhang and X. Wu, "On Hybrid Pilot for Channel Estimation in Massive MIMO Uplink," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 7, pp. 6670-6685, July, 2019. [SCI, EI]

D. Li and Y.-C. Liang, "Adaptive Ambient Backscatter Communication Systems with MRC," *IEEE Transactions on Vehicular Technology*, vol. 67, no. 12, pp. 12352-12357, December, 2018. [SCI, EI]

Y. Zhu, Z. Li, D. Sui, **D. Li**, J. Kong, and F. Hu, "Group-based Relay Selection in Simultaneous Wireless Information and Power Transfer Network," *IEEE Access*, vol. 6, pp. 49019-49028, September, 2018. [SCI, EI]

D. Li, W. Peng and Y.-C. Liang, "Hybrid Ambient Backscatter Communication Systems with Harvest-Then-Transmit Protocols," *IEEE Access*, vol. 6, pp. 45288-45298, Sept. 2018. [SCI, EI]

G. Wang, W. Peng, **D. Li**, T. Jiang and F. Adachi, "Statistical CSI Acquisition in the Non-stationary Massive MIMO Environment," *IEEE Transactions on Vehicular Technology*, vol. 67, no. 8, pp.7181-7190, August, 2018. [SCI, EI]

M. L. Fang, J. Q. Li and **D. Li**, "Performance Analysis and Optimization for Virtual Full-Duplex Quantize-Map-Forward Two-way Relay Systems," *Computer Communications*, vol. 123, pp. 1-10, June, 2018. [SCI, EI]

D. Li, "Full-Duplex Relaying with Quantize-Map-and-Forward," *IEEE Access*, vol. 6, pp. 14298-14306, February, 2018. [SCI, EI]

D. Li, "Amplify-and-Forward Relay Sharing for Both Primary and Cognitive Users," *IEEE Transactions on Vehicular Technology*, vol. 65, no. 4, pp. 2796-2801, April, 2016. [SCI, EI]

D. Li, “Opportunistic DF-AF Selection for Cognitive Relay Networks,” *IEEE Transactions on Vehicular Technology*, vol. 65, no. 4, pp. 2790-2796, April, 2016. [SCI, EI]

H. Zhang, S. Gao, **D. Li**, H. Cheng and L. Yang, “On Superimposed Pilot for Channel Estimation in Multi-cell Multiuser MIMO Uplink: Large System Analysis,” *IEEE Transactions on Vehicular Technology*, vol. 65, no. 3, pp. 1492-1505, March, 2016. [SCI, EI]

J. Li, H. Zhang, **D. Li** and H. Chen, “On the Performance of Wireless Energy Transfer Enabled Massive MIMO Systems with Superimposed Pilot Aided Channel Estimation,” *IEEE Access*, vol. 3, pp. 2014-2027, October, 2015. [SCI, EI]

D. Li, “Cognitive Relay Networks: Opportunistic or Uncoded Decode-and-Forward Relaying?” *IEEE Transactions on Vehicular Technology*, vol. 63, no. 3, pp. 1486-1491, March, 2014. [SCI, EI]

H. N. Dai, Q. Wang, D. Li and R. C. W. Wong, “On Eavesdropping Attacks in Wireless Sensor Networks with Directional Antennas,” *International Journal of Distributed Sensor Networks*, vol. 2013, Article ID 760834, 13 pages, August, 2013. [SCI]

D. Li and Y.-C. Liang, “Power Allocation for Interference-Limited Cognitive Multiple Access Channels,” *IEEE Wireless Communications Letters*, vol. 2, no. 3, pp. 291-294, June, 2013. [SCI, EI]

D. Li, “On the Capacity of Cognitive Broadcast Channels with Opportunistic Scheduling,” *Wiley Wireless Communications & Mobile Computing*, vol. 13, no. 2, pp. 198-203, February, 2013. [SCI, EI]

D. Li, “Outage Probability and Power Allocation for Cooperative Multicast Systems,” *IEEE Communications Letters*, vol. 16, no. 7, pp. 1080-1083, July, 2012. [SCI, EI]

D. Li, “Joint Power and Rate Control Combined with Adaptive Modulation in Cognitive Radio Networks,” *Springer Wireless Personal Communications*, vol. 63, no. 3, pp. 549-559, April, 2012. [SCI, EI]

D. Li, “Performance Analysis of MRC Diversity for Cognitive Radio Systems,” *IEEE Transactions on Vehicular Technology*, vol. 61, no. 2, pp. 849-853, February, 2012. [SCI, EI]

D. Li, “Outage Probability of Cognitive Radio Networks with Relay Selection,” *IET Communications*, vol. 5, no. 18, pp. 2730-2735, December, 2011. [SCI, EI]

D. Li, “Efficient Power Allocation for Multiuser Cognitive Radio Networks,” *Springer Wireless Personal Communications*, vol. 59, no. 4, pp. 589-597, August, 2011. [SCI, EI]

D. Li, “Effect of Channel Estimation Errors on Arbitrary Transmit Antenna Selection for Cognitive MISO Systems,” *IEEE Communications Letters*, vol. 15, no. 6, pp. 656-658, June, 2011. [SCI, EI]

D. Li, “Performance Analysis of Uplink Cognitive Cellular Networks with Opportunistic Scheduling,” *IEEE Communications Letters*, vol. 14, no. 9, pp. 827-829, September, 2010. [SCI, EI]

X. H. Dai, H. Zhang and D. Li, “Superimposed Training for MIMO/OFDM Systems in Linearly Time-Variant Wireless Channels,” *IEEE Transactions on Communications*, vol. 58, no. 2, pp. 681-693, February, 2010. [SCI, EI]

H. Zhang, X. H. Dai, D. Li and S. Ye, “Linearly Time-Varying Channel Estimation and Symbol Detection for OFDMA Uplink using Superimposed Training,” *EURASIP Journal on Wireless Communications and Networking, Special Issue on OFDMA Architectures, Protocols, and Applications*, vol. 2009, Article ID 307375, 11 pages, May, 2009. [SCI]

D. Li, X. H. Dai and H. Zhang, “Sidelobe Suppression in NC-OFDM Systems using Constellation Adjustment,” *IEEE Communications Letters*, vol. 13, no. 5, pp. 327-329, May, 2009. [SCI, EI]

D. Li, X. H. Dai and H. Zhang, “Game Theoretic Analysis of Joint Rate and Power Allocation in Cognitive Radio Networks,” *International Journal of Communications, Network and System Sciences*, vol. 2, no. 1, pp. 1-7, February, 2009.

D. Li, X. H. Dai and H. Zhang, “Joint Adaptive Modulation and Power Allocation in Cognitive Radio Networks,” *International Journal of Communications, Network and System Sciences*, vol. 1, no. 3, pp. 228-234, August, 2008.

Professional Certification and Awards

BoC Excellent Research Award, Macau University of Science and Technology, 2016.

BoC Excellent Research Award, Macau University of Science and Technology, 2011.

Professional Society Membership

Executive board member of IEEE Macau Section, 2016–present

Program Chair/Plenary Speaker, IEEE ICCEI, 2018

TPC Vice-Chair, IEEE ICCS, 2014.

Member of IEEE, 2010–present

Member of IEEE Communications Society, 2010–present