CURRICULUM VITAE

LI, DONG, Ph.D., SMIEEE

Associate Professor

Faculty of Information Technology

Macau University of Science and Technology Avenida Wai Long, Taipa, Macau SAR, China

Office: A207

Phone: +853 8897 2920 Email: dli@must.edu.mo



EDUCATION

•	Sun Yat-Sen University, Guangzhou, China	2007 - 2010
	Ph.D. in Communication and Information Systems	
•	Sun Yat-Sen University, Guangzhou, China	2004 - 2006
	M.E. in Communication and Information Systems	

EXPERIENCE

Full-Time Positions

 Macau University of Science and Technology, Macau SAR, China Associate Professor, Faculty of Information Technology Macau University of Science and Technology, Macau SAR, China Assistant Professor, Faculty of Information Technology 	07/2017 - Present 09/2010 - 06/2017
Part-Time Positions	
 Macau University of Science and Technology, Macau SAR, China 	01/2010 - 06/2010

Visiting Positions

•	The Chinese University of Hong Kong, Shenzhen, China	07/2015 - 08/2015
	Visiting Scholar, The School of Science and Engineering	
•	Agency for Science, Technology and Research (A*STAR), Singapore	07/2012 - 08/2012
	Visiting Researcher, Institute for Infocomm Research (I ² R)	

HONORS

• 2022, World's Top 2% Scientist, Stanford University

Part-Time Lecturer, Faculty of Information Technology

- 2021, World's Top 2% Scientist, Stanford University
- 2020, World's Top 2% Scientist, Stanford University

AWARDS

For Research

- 2023, Distinguished Paper Award, IEEE International Conference on Green Computing and Communications (GreenCom)
- 2023, Best Paper Award, IEEE International Conference on E-health Networking, Application & Services (HealthCom)
- 2023, Best Paper Award, IEEE International Conference on Communication Technology (ICCT)
- 2022, Best Research Output Award, Macau University of Science and Technology
- 2021, Bank of China (BOC) Excellent Research Award, Macau University of Science and Technology
- 2019, Bank of China (BOC) Excellent Research Award, Macau University of Science and Technology
- 2016, Bank of China (BOC) Excellent Research Award, Macau University of Science and Technology
- 2011, Bank of China (BOC) Excellent Research Award, Macau University of Science and Technology

1

For Services

• 2021, 10 Years of Services, Macau University of Science and Technology

RESEARCH

Research Interests

- Intelligent Reflecting Surface-Assisted Communication
- Backscatter Communication, Ambient Backscatter
- Wireless AI and Communications

Projects

Co-Funded by the Ministry of Science and Technology (MOST) of P. R. China & Macau Science and Technology Development Fund (FDCT)

• **PI**, Grant 0018/2019/AMJ, 1,827,100 MOP, 21/09/2020 – 21/09/2023;

Co-Funded by the Ministry of Science and Technology (GDST) of P. R. China & Macau Science and Technology Development Fund (FDCT)

• **PI**, Grant 0029/2021/AGJ, 1,130,000 MOP, 16/07/2022 – 16/07/2024;

Funded by the Macau Science and Technology Development Fund (FDCT)

- **PI**, Grant 0110/2020/A3, 859,100 MOP, 07/06/2021 07/06/2023;
- **Co-I**, Grant 0003/2019/A1, 1,963,500 MOP, 21/09/2020 21/09/2023;
- PI, Grant 0003/2019/A1, 1,166,000 MOP, 28/06/2019 28/06/2022;
- **PI**, Grant 0014/2018/A, 493,900 MOP, 20/12/2018 20/12/2020;
- **PI**, Grant 052/2016/A, 471,680 MOP, 28/12/2016 28/12/2018;

Funded by Industry

- **PI**, 200,000 RMB, 01/07/2023 30/12/2024;
- **PI**, 200,000 RMB, 21/09/2023 21/09/2024;

PUBLICATIONS

Journal Papers

Accepted/Published

- 1. B. Gu, D. Li and H. Xie, "Computation-Efficient Backscatter-Blessed MEC with User Reciprocity," accepted by *IEEE Transactions on Vehicular Technology*, 2023.
- 2. X. Yu and D. Li, "Attention Mechanism Aided Signal Detection in Backscatter Communications with Insufficient Training Data," accepted by *IEEE Transactions on Vehicular Technology*, 2023.
- 3. H. Xie and D. Li, "How Much Time is Required for Phase Shift Delivery in RIS-Aided Wireless Systems?" accepted by *IEEE Wireless Communications Letters*, 2023.
- 4. C. Liang, D. Li, Z. Lin and H. Cao, "Selection-Based Image Generation for Semantic Communication System," accepted by *IEEE Communications Letters*, 2023
- 5. Y. Xu, B. Gu, Z. Gao, D. Li, Q. Wu and Y. Chau, "Applying RIS in Multi-User SWIPT-WPCN Systems: A Robust and Environmentally-Friendly Design," accepted by *IEEE Transactions on Cognitive Communications and Networking*, 2023.
- 6. Z. Yan and D. Li, "Convergence Time Optimization for Decentralized Federated Learning with LEO Satellites via Number Control," accepted by *IEEE Transactions on Vehicular Technology*, 2023.
- 7. Z. Zhang, L. He, D. Li and Y. He, "Cross Metaplectic Wigner Distribution: Definition Revisited, Relation to Short-Time Metaplectic Transform, and Uncertainty Principles," accepted by *IEEE Transactions on Information Technology*, 2023.
- 8. Y. Liu, D. Li, H. Dai, X. Ma and C. A. Boano, "Understanding Concurrent Radiative Wireless Power Transfer in IoT: Out of Myth, into Reality," accepted by *IEEE Wireless Communications*, 2023.
- 9. T. Liang, T. Zhang, Q. Wu, W. Liu, D. Li, Z. Xie, D. Li and Q. Zhang, "Age of Information Based Scheduling for UAV Aided Localization and Communication," accepted by *IEEE Transactions on Wireless Communications*, 2023.
- 10. Z. Lin, H. Niu, K. An, D. Li, J. Wang and N. A.-Dhahir, "Pain without Gain: Destructive Beamforming from A Malicious RIS Perspective in IoT Network," accepted by *IEEE Internet of*

- Things Journal, 2023.
- 11. H. Zhang, X. Liu, Y. Xu, D. Li, C. Yuen and Q. Xue, "Partial Offloading and Resource Allocation for MEC-Assisted Vehicular Networks," accepted by *IEEE Transactions on Vehicular Technology*, 2023.
- 12. K. Li, M. Cui, G. Zhang, Q. Wu, D. Li and J. He, "Robust Transmit and Reflect Beamforming Design for IRS-Assisted Offshore NOMA Communication Systems," accepted by *IEEE Transactions on Vehicular Technology*, 2023.
- 13. Y. Liu, D. Li, H. Dai, C. Li and R. Zhang, "Understanding the Impact of Environmental Conditions on Zero-Power Internet of Things: An Experimental Evaluation," accepted by *IEEE Wireless Communications*, 2022.
- 14. H. Xie and D. Li, "To Reflect or Not To Reflect: On-Off Control and Number Configuration for Reflecting Elements in RIS-Aided Wireless Systems," *IEEE Transactions on Communications*, vol. 71, no. 12, pp. 7409-7424, December 2023.
- 15. W. Liu, D. Li, T. Liang, T. Zhang, Z. Lin and N. A.-Dhahir, "Joint Trajectory and Scheduling Optimization for Age of Synchronization Minimization in UAV-Assisted Networks with Random Updates," *IEEE Transactions on Communications*, vol. 71, no. 11, pp. 6633-6646, November 2023.
- 16. C. Wu, F. Ke, X. Yang, M. Wen, D. Li and X. Zhang, "Joint Energy and Information Precoding for NOMA-based WPCNs Aided by Reconfigurable Intelligent Surface," *IEEE Transactions on Vehicular Technology*, vol. 72, no. 11, pp. 14559-14572, November 2023.
- 17. X. Yu, D. Li, Z. Wang and S. Sun, "An Integrated New Deep Learning Framework for Reliable CSI Acquisition in Connected and Autonomous Vehicles," *IEEE Network*, Special Issue on Connected and Autonomous Vehicles, vol. 37, no. 4, pp. 216-222, October 2023.
- 18. C. Zhou, Y. Xu, D. Li, C. Huang, C. Yuen, J. Zhou and G. Yang, "Energy-Efficient Maximization for RIS-Aided MISO Symbiotic Radio Systems," *IEEE Transactions on Vehicular Technology*, vol. 72, no. 10, pp. 13689-13694, October 2023.
- 19. Z. Yan, D. Li, Z. Zhang and J. He, "Accuracy-Security Tradeoff with Balanced Aggregation and Artificial Noise for Wireless Federated Learning," *IEEE Internet of Things Journal*, vol. 10, no. 20, pp. 18154-18167, October 2023.
- 20. Y. Xu, R. Xu, D. Li, G. Yang, G. Wang, C. Yuen and J. Zhou, "Robust Resource Allocation for Wireless-Powered Backscatter Communication Systems with NOMA," *IEEE Transactions on Vehicular Technology*, vol. 72, no. 9, pp. 12288-12299, September 2023.
- 21. Z. Zhang, Z. Zhu, D. Li and Y. He, "Free Metaplectic Wigner Distribution: Definition and Heisenberg's Uncertainty Principles," *IEEE Transactions on Information Theory*, vol. 69, no. 10, pp. 6787-6810, September 2023.
- 22. P. Huang, D. Li and Z. Yan, "Wireless Federated Learning with Asynchronous and Quantized Updates," *IEEE Communications Letters*, vol. 27, no. 9, pp. 2393-2397, September 2023.
- 23. H. Xie, B. Gu, D. Li, Z. Lin and Y. Xu, "Gain without Pain: Recycling Reflected Energy from Wireless Powered RIS-aided Communications," *IEEE Internet of Things Journal*, vol. 10, no. 15, pp. 13264-13280, August 2023.
- 24. B. Gu, D. Li, Y. Liu and Y. Xu, "Exploiting Constructive Interference for Backscatter Communication Systems," *IEEE Transactions on Communications*, vol. 71, no. 7, pp. 4344-4359, July 2023.
- 25. B. Gu, H. Xie and D. Li, "Act before Another is Aware: Safeguarding Backscatter Systems with Covert Communications," *IEEE Wireless Communications Letters*, vol. 12, no. 6, pp. 1106-1110, June 2023.
- 26. F. Huang and D. Li, "Spatial Modulation with Joint Permutation, Group and Antenna Index," *IEEE Wireless Communications Letters*, vol. 12, no. 4, pp. 753-757, April 2023.
- 27. Z. Zhang, D. Li, Y. He, Y. Chen, J. Zhang and C. Zhou, "K-Wigner Distribution: Definition, Uncertainty Principles and Time-Frequency Analysis," *IEEE Transactions on Information Theory*, vol. 69, no. 4, pp. 2722-2736, April 2023.
- 28. Y. Zhai, Y. Hu, Y. Wang, Z. Lin, Y. Zhang, Q. Zhao and D. Li, "An Inter-Satellite Link Assignment Design for Mega-constellation Based on NSGA-II," *Wireless Communications and Mobile Computing*, Special Issue on Coverage Enhancement Techniques for B5G/6G with Aerial Networks, vol. 2023, Article ID 5977121, 8 pages, February 2023.
- 29. H. Niu, Z. Lin, K. An, X. Liang, Y. Hu, D. Li and G. Zheng, "Active RIS-Assisted Secure Transmission for Cognitive Satellite Terrestrial Networks," *IEEE Transactions on Vehicular Technology*, vol. 72, no. 2, pp. 2609-2614, Feburary 2023.

- 30. S. Mao, K. Yang, J. Hu, D. Li, D. Lan, M. Xiao and Y. Xiong, "Intelligent Reflecting Surface-aided Wireless Powered Hybrid Backscatter-Active Communication Networks," *IEEE Transactions on Vehicular Technology*, vol. 72, no. 1, pp. 1383-1388, January 2023.
- 31. B. Gu, D. Li, Y. Xu, C. Li and S. Sun, "Many a Little Makes a Mickle: Probing Backscattering Energy Recycling for Backscatter Communications," *IEEE Transactions on Vehicular Technology*, vol. 72, no. 1, pp. 1343-1348, January 2023.
- 32. Y. Wang, Z. Lin, H. Niu, K. An, Y. Hu, D. Li, G. Zheng and A.-D. Naofal, "Secure Satellite Transmission with Active Reconfigurable Intelligent Surface," *IEEE Communications Letters*, vol. 26, no. 12, pp. 3029-3033, December 2022.
- 33. Z. Yan, D. Li, X. Yu and Z. Zhang, "Latency-Efficient Wireless Federated Learning with Quantization and Scheduling," *IEEE Communications Letters*, vol. 26, no. 11, pp. 2621-2625, November 2022.
- 34. Y. Xu, H. Xie, D. Li, and R. Q. Hu, "Energy-Efficient Beamforming Design for 5G Heterogeneous Industrial IoT Networks with Phase and Distortion Noises," *IEEE Transactions on Industrial Informatics*, vol. 18, no. 11, pp. 7423-7434, November 2022.
- 35. D. Li, "Bound Analysis of Number Configuration for Reflecting Elements in IRS-Assisted D2D Communications," *IEEE Wireless Communications Letters*, vol. 11, no. 10, pp. 2220-2224, October 2022.
- 36. Y. Peng, Y. Liu, D. Li and H. Zhang, "Deep Reinforcement Learning Based Freshness-Aware Path Planning for UAV-Assisted Edge Computing Networks with Device Mobility," *Remote Sensing*, vol. 14, no. 16, pp. 1-20, August 2022.
- 37. Y. Liu, D. Li, B. Du, L. Shu and G. Han, "Rethinking Sustainable Sensing in Agricultural Internet of Things: From Power Supply Perspective," *IEEE Wireless Communications*, vol. 29, no. 4, pp. 102-109, August 2022.
- 38. F. Huang and D. Li, "Extended Space Index Modulation," *IEEE Wireless Communication Letters*, vol. 11, no. 6, pp. 1171-1175, June 2022.
- 39. Y. Xu, M. Yang, Y. Yang, Y. Ye, R. Q. Hu and D. Li, "Max-Min Energy-Efficient Optimization for Cognitive Heterogeneous Networks with Spectrum Sensing Errors and Channel Uncertainties," *IEEE Wireless Communications Letters*, vol. 11, no. 6, pp. 1113-1117, June 2022.
- 40. D. Li, "How Many Reflecting Elements are Needed for Energy- and Spectral-Efficient Intelligent Reflecting Surface-Assisted Communication," *IEEE Transactions on Communications*, vol. 70, no. 2, pp. 1320-1331, February 2022.
- 41. Y. Xu, B. Gu, D. Li, Z. Yang, C. Huang and K.-K. Wong, "Resource Allocation for Secure SWIPT-enabled D2D Communications with Alpha Fairness," *IEEE Transactions on Vehicular Technology*, vol. 71, no. 1, pp. 1101-1106, January 2022.
- 42. X. Yu, D. Li, Y. Xu and Y.-C. Liang, "Convolutional Auto-Encoder-Based Feedback Compression for Intelligent Reflecting Surface-Assisted Wireless Systems," *IEEE Communications Letters*, vol. 26, no. 1, pp. 89-93, January 2022.
- 43. Z. Gao, Y. Xu, Q. Wang, Q. Wu and D. Li, "Outage-Constrained Energy Efficiency Maximization for RIS-Assisted WPCNs," *IEEE Communications Letters*, vol. 25, no. 10, pp. 3370-3374, October 2021.
- 44. Y. Xu, B. Gu and D. Li, "Robust Energy-Efficient Optimization for Secure Wireless-Powered Backscatter Communications with A Non-linear EH Model," *IEEE Communications Letters*, vol. 25, no. 10, pp. 3209-3213, October 2021.
- 45. R. Zhao, J. Xia, Z. Zhao, L. Fan and D. Li, "Green MEC Networks Design under UAV Attack: A Deep Reinforcement Learning Approach," *IEEE Transactions on Green Communications and Networking*, vol. 5, no. 3, pp. 1248-1258, September 2021.
- 46. X. Li, Y. Zheng, W. U. Khan, M. Zeng, D. Li, G. K. Ragesh and L. Li, "Physical Layer Security of Cognitive Ambient Backscatter Communications for Green Internet-of-Things," *IEEE Transactions on Green Communications and Networking*, Special Issue on Green Internet of Things: Challenges and Future Opportunities, vol. 5, no. 3, pp. 1066-1076, September 2021.
- 47. M. Fan, D. Li, H. Zhang, L. Fang and I. Trigui, "Performance Analysis of Short-Packet Communications with Incremental Relaying," *Computer Communications*, vol. 177, pp. 51-56, September 2021.
- 48. Z. Zhang, X. Shi, A. Wu and D. Li, "Sharper N-D Heisenberg's Uncertainty Principle," *IEEE Signal Processing Letters*, vol. 28, pp. 1665-1669, August 2021.
- 49. Y. Ye, L. Shi, X. Chu, D. Li and G. Lu, "Delay Minimization in Wireless Powered Mobile Edge

- Computing With Hybrid BackCom and AT," *IEEE Wireless Communications Letters*, vol. 10, no. 7, pp. 1532-1536, July 2021.
- 50. D. Li, "Fairness-Aware Multiuser Scheduling for Finite-Resolution Intelligent Reflecting Surface-Assisted Communication," *IEEE Communications Letters*, vol. 25, no. 7, pp. 2395-2397, July 2021.
- 51. Y. Xu, B. Gu, R. Q. Hu, D. Li and H. Zhang, "Joint Computation Offloading and Radio Resource Allocation in MEC-based Wireless-Powered Backscatter Communication Networks," *IEEE Transactions on Vehicular Technology*, vol. 70, no. 6, pp. 6200-6205, June 2021.
- 52. C. Li, J. Xia, F. Liu, D. Li, L. Fan, G. K. Karagiannidis and A. Nallanathan, "Dynamic Offloading for Multiuser Muti-CAP MEC Networks: A Deep Reinforcement Learning Approach," *IEEE Transactions on Vehicular Technology*, vol. 70, no. 3, pp. 2922-2927, March 2021.
- 53. Z. Zhang, D. Li, Y. Chen and J. Zhang, "Linear Canonical Wigner Distribution of Noisy LFM Signals via Multiobjective Optimization Analysis Involving Variance-SNR," *IEEE Communications Letters*, vol. 25, no. 2, pp. 546-550, February 2021.
- 54. K. He, Z. Wang, D. Li, F. Zhu and L. Fan, "Ultra-reliable MU-MIMO detector based on deep learning for 5G/B5G-enabled IoT," *Physical Communications*, vol. 43, pp. 1-7, December 2020.
- 55. D. Li, "Hybrid Active and Passive Antenna Selection for Backscatter-Assisted MISO Systems," *IEEE Transactions on Communications*, vol. 68, no. 11, pp. 7258-7269, November 2020.
- 56. D. Li, "Backscatter Communication Powered by Selective Relaying," *IEEE Transactions on Vehicular Technology*, vol. 69, no. 11, pp. 14037-14042, November 2020.
- 57. D. Li, "Ergodic Capacity of Intelligent Reflecting Surface-Assisted Communication Systems with Phase Errors," *IEEE Communications Letters*, vol. 24, no. 8, pp. 1646-1650, August 2020.
- 58. D. Li, "Fairness-Based Multiuser Scheduling for Ambient Backscatter Communication Systems," *IEEE Wireless Communications Letters*, vol. 9, no. 8, pp. 1150-1154, August, 2020.
- 59. Z. Zhao, R. Zhao, J. Xia, X. Lei, D. Li, Y. Chau and L. Fan, "A Novel Framework of Three-Hierarchical Offloading Optimization for MEC in Industrial IoT Networks," *IEEE Transactions on Industrial Informatics*, Special Section on Social and Cognitive Mobile Computing in Industrial Internet of Things, vol. 16, no. 8, pp. 5424-5434, August 2020.
- 60. D. Li, "Backscatter Communication via Harvest-Then-Transmit Relaying," *IEEE Transactions on Vehicular Technology*, vol. 69, no. 6, pp. 6843-6847, June 2020.
- 61. Y. Ma, Z. Quan, D. Li, S. Zhang, X. Li, Z, Feng and Z. Ding, "Optimal Linear Cooperation for Signal Classification in Cognitive Communication Networks," *IEEE Transactions on Wireless Communications*, vol. 19, no. 5, pp. 3144-3155, May 2020.
- 62. D. Li, "Two Birds with One Stone: Exploiting Decode-and-Forward Relaying for Opportunistic Ambient Backscattering," *IEEE Transactions on Communications*, vol. 68, no. 3, pp. 1405-1416, March 2020.
- 63. D. Deng, J, Xiao, Y. Yan, L. Fan, D. Li and H. Zhu, "When Distributed Switch-and-Stay Combining Meets Buffer in IoT Relaying Networks," *Physical Communications*, vol. 38, pp. 1-9, February 2020.
- 64. D. Li, H. Zhang and L. Fang, "Adaptive Mode Selection for Backscatter-Assisted Communication Systems with Opportunistic SIC," *IEEE Transactions on Vehicular Technology*, vol. 69, no. 2, pp. 2327-2331, February 2020.
- 65. D. Li, "Capacity of Backscatter Communication with Frequency Shift in Rician Fading Channels," *IEEE Wireless Communications Letters*, vol. 8, no. 6, pp. 1639-1643, December 2019.
- 66. D. Li and Y.-C. Liang, "Price-Based Bandwidth Allocation for Backscatter Communication with Bandwidth Constraints," *IEEE Transactions on Wireless Communications*, vol. 18, no. 11, pp. 5170-5180, November 2019.
- 67. D. Li, W. Peng and F. Hu, "Capacity of Backscatter Communication Systems with Tag Selection," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 10, pp. 10311-10314, October 2019.
- 68. Y. Ma, Z. Quan, D. Li and J. Zhang, "Minimizing Misclassification for Cooperative Spectrum Sensing using M-ary Hypothesis Testing," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 8, pp. 8210-8215, August 2019.
- 69. F. Hu, H. Liu, S. Qu, Z. Li and D. Li, "Multi-Point 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.
- 70. 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.

- 71. 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.
- 72. 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.
- 73. 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, September 2018.
- 74. 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.
- 75. M. Fang, J. 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.
- 76. D. Li, "Full-Duplex Relaying with Quantize-Map-and-Forward," *IEEE Access*, vol. 6, pp. 14298-14306, February 2018.
- 77. 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.
- 78. D. Li, "Opportunistic DF-AF Selection for Cognitive Relay Networks," *IEEE Transactions on Vehicular Technology*, vol. 65, no. 4, pp. 2790-2796, April 2016.
- 79. H. Zhang, S. Gao, D. Li, H. B. 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.
- 80. J. Li, H. Zhang, D. Li and H. Cheng, "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.
- 81. 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.
- 82. 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.
- 83. 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.
- 84. D. Li, "On the Capacity of Cognitive Broadcast Channels with Opportunistic Scheduling," *Wireless Communications and Mobile Computing*, vol. 13, no. 2, pp. 198-203, February 2013.
- 85. D. Li, "Outage Probability and Power Allocation for Cooperative Multicast Systems," *IEEE Communications Letters*, vol. 16, no. 7, pp. 1080-1083, July 2012.
- 86. D. Li, "Joint Power and Rate Control Combined with Adaptive Modulation in Cognitive Radio Networks," *Wireless Personal Communications*, vol. 63, no. 3, pp. 549-559, April 2012.
- 87. 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.
- 88. D. Li, "Outage Probability of Cognitive Radio Networks with Relay Selection," *IET Communications*, vol. 5, no. 18, pp. 2730-2735, December 2011.
- 89. D. Li, "Efficient Power Allocation for Multiuser Cognitive Radio Networks," *Wireless Personal Communications*, vol. 59, no. 4, pp. 589-597, August 2011.
- 90. 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.
- 91. D. Li, "Performance Analysis of Uplink Cognitive Cellular Networks with Opportunistic Scheduling," *IEEE Communications Letters*, vol. 14, no. 9, pp. 827-829, September, 2010.
- 92. X. 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.
- 93. H. Zhang, X. 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.
- 94. D. Li, X. 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.

- 95. D. Li, X. 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.
- 96. D. Li, X. 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.

Conference Papers

- 1. T. Liang, Z. Yu, T. Zhang, S. Zhou, W. Liu, D. Li and Z. Niu, "Joint Frame Structure and Beamwidth Optimization for Integrated Localization and Communication," in *Proceedings of the 2024 IEEE Wireless Communications and Networking Conference (WCNC 2020)*, pp. 1-6, Dubai, United Arab Emirates, April 21-24, 2024.
- 2. M. Jiang, X. Liu, D. Li and W. Gong, "Efficient Two-Way Edge Backscatter with Commodity Bluetooth," in *Proceedings of the 2024 IEEE International Conference on Computer Communications (INFOCOM 2024)*, Vancouver, Canada, May 20-23, 2024.
- 3. K. Yu, K. Li, Z. Feng, X. Zhao, D. Li, C. Luo and T. Chen, "Secure URLLC Empowered by UAV in 6G: An Interference Engineering Perspective," in *Proceedings of the 2023 IEEE International Conference on Green Computing and Communications (GreenCom 2023)*, Ocean Flower Island, Hainan, China, December 17-21, 2023.
- 4. W. Liu, Y. Liu, Q. Yang and D. Li, "AntiNoise: A Collaborative Sensing Network for Simultaneous Noise Pollution Monitoring and E-Health Management," in *Proceedings of the 2023 IEEE International Conference on E-health Networking, Application & Services (HealthCom 2023)*, Chongqing, China, December 15-17, 2023.
- 5. X. Zhao, K. Yu, D. Li, X. Liu and C. Luo, "Secure Ultra-Reliable and Low Latency Communication in NOMA-UAV Networks," in *Proceedings of the 2023 IEEE International Conference on Mobility, Sensing and Networking (MSN 2023)*, Nanjing, China, December 14-16, 2023.
- X. Yu, D. Li, H. Cao, Z. Lin, K. An, J. Wang and N. A.-Dhahir, "Phase Shift Signaling Reduction for IRS-Aided Internet of Things Networks by Exploiting Global Attention," in *Proceedings of the 2023* IEEE International Conference on Communication Technology (ICCT 2023), Wuxi, China, October 20-22, 2023.
- 7. Y. Lin, F. Ke, M. Chen, M. Qin, Y. L. Lee and D. Li, "Joint Communication, Sensing and Computing for V2I Networks," in *Proceedings of the 2023IEEE Vehicular Technology Conference (VTC 2023-Fall)*, Hong Kong, China, October 10-13, 2023.
- 8. H. Niu, Z. Lin, K. An, D. Li, X. Li, G. Zheng and J. Wang, "Inspiring Active RIS aided Networks with RSMA," in *Proceedings of the 2023 IEEE International Conference on Communication (ICC 2023)*, Rome, Italy, May 28-June 1, 2023.
- 9. M. Yang, Y. Xu, C. Huang, D. Li and Y. Peng, "Sum-Rate Maximization in RIS-Aided Wireless-Powered D2D Communication Networks," in *Proceedings of the 2022IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2022)*, pp. 1-6, Virtual Conference, September 12-15, 2022.
- 10. Z. Lin, F. Hu, D. Li and Z. Han, "Tag Selection for Backscatter Communication in Classified Wireless Body Area Networks," in *Proceedings of the 2020 IEEE Wireless Communications and Networking Conference (WCNC 2020)*, pp. 1-6, Seoul, South Korea, April 6-9, 2020.
- 11. Z. Lin, F. Hu and D. Li, "Optimal Resource Allocation in Point-to-Point Wireless Body Area Network with Backscatter Communication," in *Proceedings of the 2020 IEEE International Conference on Computing, Networking and Communications (ICNC 2020)*, pp. 780-784, Hawaii, USA, February 17-20, 2020.
- 12. J. Xu, B. Wang, J. Kong, D. Li and F. Hu, "Diagnosing-Based Mixed Sources Localization With Unknown Sensor Defect Arrays," in *Proceedings of the 2018 IEEE International Conference on Communication Systems (ICCS 2018)*, pp. 40-44, Chengdu, China, December 19-21, 2018.
- 13. Z. Quan, D. Li and Y. Gong, "Cooperative Signal Classification using Spectral Correlation Function in Cognitive Radio Networks," in *Proceedings of the 2016 IEEE International Conference on Communications (ICC 2016)*, pp. 1-6, Kuala Lumpur, Malaysia, May 22-27, 2016.
- 14. H. N. Dai, D. Li and R. C. W. Wong, "Exploring Security Improvement of Wireless Networks with Directional Antennas," in *Proceedings of the 2011 IEEE Conference on Local Computer Networks (LCN 2011)*, pp. 191-194, Bonn, Germany, October 4-7, 2011.

- 15. D. Li, "Effective Capacity Limits of Cognitive Radio Networks under Peak Interference Constraint," in *Proceedings of the 2010 IEEE International Conference on Communications Technology (ICCT 2010)*, pp. 218-222, Nanjing, China, Nov 11-14, 2010.
- 16. H. Zhang, X. Dai and D. Li, "Low-Complexity Equalization of Rapidly Time-Varying Muti-Path Channels for OFDM Systems," in *Proceedings of the 2009 IEEE International Conference on Information, Communications and Signal Processing (ICICS 2009)*, pp. 1-4, Macau, China, December 7-10, 2009.
- 17. D. Li and X. Dai, "Power Control in Cooperative Cognitive Radio Networks by Geometric Programming," in *Proceedings of the 2009 Asia-Pacific Conference on Communications (APCC 2009)*, pp. 118-121, Shanghai, China, October 8-10, 2009.
- 18. D. Li, X. Dai and H. Zhang, "Sidelobe Suppression in NC-OFDM systems using Phase Shift," in *Proceedings of the 2008 IEEE International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM 2008)*, pp. 1-4, Dalian, China, October 14-16, 2008.
- 19. D. Li, X. Dai and H. Zhang, "Cross-Layer Link Schedule and Power Control in Cognitive Radio Networks," in *Proceedings of the 2008 IEEE International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM 2008)*, pp. 1-3, Dalian, China, October 14-16, 2008.
- 20. H. Zhang, X. Dai and D. Li, "Time-varying Channel Estimation for MIMO/OFDM Systems using Superimposed Training," in *Proceedings of the 2008 IEEE International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM 2008)*, pp.1-6, Dalian, China, October 14-16, 2008.
- 21. D. Li, X. Dai and H. Zhang, "Game Theoretic Analysis of Joint Rate and Power Control in Cognitive Radio Networks," in *Proceedings of the 2008 IEEE International Conference on Communications, Circuits and Systems (ICCCAS 2008)*, pp. 367-370, Xiamen, China, May 25-28, 2008.
- 22. H. Zhang, X. Dai and D. Li, "Optimal Channel Estimation MIMO/OFDM Systems in Time-varying Wireless Channels," in *Proceedings of the 2008 IEEE International Conference on Communications, Circuits and Systems (ICCCAS 2008)*, pp. 332-335, Xiamen, China, May 25-28, 2008.
- 23. L. C. Liu, X. Dai and D. Li, "A Novel Pilot-Based Carrier Frequency Offset Estimation in MC-DS-CDMA Uplink," in *Proceedings of the 2007IET Communications Conference on Wireless, Mobile and Sensor Networks (CCWMSN 2007)*, pp. 1039-1042, Shanghai, China, December 12-14, 2007.
- 24. H. Zhang, X. Dai and D. Li, "Time-varying Channel Estimation for SISO/MIMO-OFDM Systems using Superimposed Training," in *Proceedings of the 2007 IET Communications Conference on Wireless, Mobile and Sensor Networks (CCWMSN 2007)*, pp. 877-880, Shanghai, China, December 12-14, 2007.
- 25. H. Zhang, X. Dai and D. Li, "Semi-Blind Channel Estimation for MIMO/OFDM Systems using Superimposed Training," in *Proceedings of the 2007 IET Communications Conference on Wireless, Mobile and Sensor Networks (CCWMSN 2007)*, pp. 873-876, Shanghai, China, December 12-14, 2007.
- 26. D. Li, X. Dai and H. Zhang, "Joint Adaptive Modulation and Power Control in Cognitive Radio Networks," in *Proceedings of the 2007 IET Communications Conference on Wireless, Mobile and Sensor Networks (CCWMSN 2007)*, pp. 739-741, Shanghai, China, December 12-14, 2007.
- 27. X. Dai, J. Q. Liang, H. F. Wu and D. Li, "An Effective Method for PAPR Reduction in MC-DS-CDMA Systems," in *Proceedings of the 2006IEEE International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM 2006)*, pp. 1-4, Wuhan, China, September 22-24, 2006.
- 28. D. Li and X. Dai, "On the Performance of MIMO-OFDM Beamforming Systems with Feedback Delay," in *Proceedings of the 2006 IEEE International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM 2006)*, pp. 1-4, Wuhan, China, September 22-24, 2006.
- 29. D. Li and X. Dai, "Joint Antenna and Subcarrier Selection for MIMO-OFDM Systems," in *Proceedings of the 2006 IEEE International Conference on Communications, Circuits and Systems (ICCCAS 2006)*, pp. 1153-1156, Guilin, China, June 25-28, 2006.