

CURRICULUM VITAE

Dr. Yu-Dong Yao

IEEE Fellow

NAI Fellow (National Academy of Inventors)

CAE Fellow (Canadian Academy of Engineering)

Professor and Department Chair
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Education

- B. Eng., Electrical Engineering, Nanjing University of Posts and Telecommunications, China, 1982.
- M. Eng., Electrical Engineering, Nanjing University of Posts and Telecommunications, China, 1985.
- Ph. D., Electrical Engineering, Southeast University, Nanjing, China (Visiting student at Carleton University, Ottawa, Canada,) 1988.

Professional Experience

2000 – present: ECE Department, Stevens Institute of Technology, Hoboken, New Jersey

2009 – present: Professor and ECE Department Chair

2007 – 2009: Associate Professor and ECE Department Chair

2000 – 2007: Associate Professor

1994 – 2000: QUALCOMM, Inc., San Diego, California; Senior Engineer/Staff Engineer
1990 – 1994: SPAR Aerospace Ltd., Montreal, Canada; MTS/Senior MTS
1989 – 1990: Carleton University, Ottawa, Canada; Research Associate

Awards and Honors

- **CAE Fellow (2017) (Canadian Academy of Engineering)**
- **NAI Fellow (2015) (National Academy of Inventors)**
Elected to NAI Fellow “for having demonstrated a highly prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on quality of life, economic development, and the welfare of society.”
- **IEEE Fellow (2011)**
Elevation to IEEE Fellow “for contributions to wireless communications systems.”
- 2016 IEEE Region 1 Technological Innovation Award
For outstanding leadership and significant innovations in RF and antenna designs for directed-energy systems.
- IEEE ComSoc Distinguished Lecturer (2015-2018)
- Graduate Student Council Award (2016)
In recognition of support for the graduate students at Stevens Institute of Tech
- 2015 Asian American Engineering of the Year, CIE-USA
For original and distinguished contributions to wireless communications and electronic defense technologies.
- AOC Outstanding Achievement Award (2014)
For outstanding contributions to electronic warfare and directed energy technologies.
- Advancement of Invention Award (2013), New Jersey Inventors Hall of Fame
For innovation and technology advancements in the field of satellite communications, CDMA radio link protocols and their use in multiple networks.
- Stevens Alumni Association Outstanding Teacher Award (2008)
Selected by Stevens’ five most recent graduating classes for excellence in teaching.

Professional Society Activities

Professional Society Services

- Member of the Board of Directors and VP, Education, New York Founders Chapter, AFCEA (Armed Forces Communications and Electronics Association) (2015 – present)
- Chairman, Board of Trustees, WOCC, Inc., (Wireless & Optical Comm. Conf.) (2010 – 2012)
- President, WOCC, Inc., (Wireless and Optical Communications Conference) (2008 – 2010)
- Member, Board of Governors, IEEE Vehicular Technology Society (2005 – 2008)
- Chair, IEEE Vehicular Technology Society Education Committee (2000 – 2008)
- Chair, IEEE North New Jersey Vehicular Technology Society (VTS) Chapter (2010 – 2012)
- Member at Larger, IEEE North New Jersey Section ExCom (2015 – present)
- Advisor, IEEE Stevens Institute of Technology Student Chapter (2000 – 2006)

Journal Editorship

- Associate editor, *IEEE Communications Letters* (2000-2008)
- Associate editor, *IEEE Transactions on Vehicular Technology* (2001-2006)
- Editor, *IEEE Transactions on Wireless Communications* (2002-2005)
- Editor, *IEEE Journal of Selected Areas in Communications – Wireless Series* (2001-2002)

Conference Organization

- Conference Co-Organizer, 19th Annual Wireless & Optical Communications Conf., 2010, Shanghai.
- Conference Organizer, 18th Annual Wireless & Optical Communications Conf., 2009, New Jersey.
- Technical Program Co-Chair, 16th Annual Wireless & Optical Commu. Conf., 2007, New Jersey.
- Workshop Chair, 2010 IEEE VTS/Stevens Workshop on LTE and 4G Technologies, New Jersey.
- Exhibits Coordinator, IEEE Conference VTC'2001-Fall, Atlantic City, New Jersey.
- TPC Member, IEEE WiMob, 2012, 2011.

- TPC Member, IEEE GLOBECOM 2011, 2010, 2009, 2008, 2007.
- TPC Member, IEEE ICC 2009, 2008, 2007, 2003.
- TPC Member, IEEE WCNC 2015, 2013, 2009, 2008, 2007.
- TPC Member, IEEE VTC-Spring-2009, VTC-Spring-2006, VTC-Fall-2003, VTC-Spring-2003, VTC-1998.

Research

Patents

[1] J. Brown and Y. D. Yao, Method and apparatus for efficient data transmission control in a wireless voice-over-data communication system, U.S. patent 7,609,716, 2009.

[2] J. Brown and Y. D. Yao, Method and apparatus for efficient data transmission control in a wireless voice-over-data communication system, U.S. patent 7,522,631, 2009.

[3] Y. D. Yao, J. Tomcik, M. B. von Damm, and J. Brown, Method and apparatus for voice latency reduction in a voice-over-data wireless communication system, U.S. patent 7,110,357, 2006.

[4] D. Vassilovski, J. Tomcik, S. Carter, Y. D. Yao, and M. Marshall, Method and apparatus to facilitate a transparent service option transition, U.S. patent 6,990,119, 2006.

[5] Y. D. Yao, J. Tomcik, M. B. von Damm, and J. Brown, Method and apparatus for voice latency reduction in a voice-over-data wireless communication system, U.S. patent 6,785,262, 2004.

[6] Y. D. Yao, Method and apparatus for efficient data transmission in a voice-over-data communication system, U.S. patent 6,731,647, 2004.

[7] J. Tomcik and Y. D. Yao, Method and apparatus for efficient data retransmission in a voice-over-data communication system, U.S. patent 6,567,388, 2003.

[8] Y. D. Yao, Method and apparatus for efficient data transmission in a voice-over-data communication system, U.S. patent 6,400,724, 2002.

[9] Y. D. Yao and M. Grob, Method and apparatus for monitoring link activity to prevent system deadlock in a dispatch system, U.S. patent 5,983,114, 1999.

[10] Y. D. Yao, M. Grob, E. Levken, and K. White, Method/apparatus for an accelerated response to resource allocation requests in a CDMA push-to-talk system using a CDMA interconnect subsystem to route calls, U.S. patent 5,983,099, 1999.

[11] M. Grob, Y. D. Yao, and E. Lekven, Method and apparatus for access regulation and system protection of a dispatch system, U.S. patent 5,960,362, 1999.

[12] E. Lekven, Y. D. Yao, and M. Grob, Method and apparatus of preserving power of a remote unit in a dispatch system, U.S. patent 5,884,196, 1999.

[13] M. Grob, Y. D. Yao, and E. Lekven, Method and apparatus of power control in a CDMA dispatch system, U.S. patent 5,881,368, 1999.

[14] H. Hong and Y. D. Yao, An amplifier circuit design for telephone, Chinese patent 87205358.6, 1987.

Journal Publications

1. Lei Shen, Yu-Dong Yao, Haiquan Wang, Huaxia Wang; "Blind Decoding Based on Independent Component Analysis for a Massive MIMO Uplink System in Microcell Rician/Rayleigh Fading Channels," in *Vehicular Technology, IEEE Transactions on*, vol.65, no.10, pp.8322-8329, Oct. 2016
2. X Jiang, L Shen, X Xu, J Bao, YD Yao, Z Zhijin; "Power Allocation Optimisation for High Throughput with Mixed Spectrum Access Based on Interference Evaluation in Cognitive Relay Networks," in *IET Communications*, 2016
3. G Ding, J Wang, Q Wu, YD Yao, F Song, TA Tsiftsis, "Cellular-base-station-assisted device-to-device communications in TV white space," in *IEEE Journal on Selected Areas in Communications*, vol.34, no.1, pp.107-121, 2016
4. J Zhu, Y Zou, G Wang, YD Yao, GK Karagiannidis, "On secrecy performance of antenna-selection-aided MIMO systems against eavesdropping," *IEEE Transactions on Vehicular Technology*, vol.65, no.1, pp.214-225, 2016
5. Q Wu, Z Du, P Yang, YD Yao, J Wang, "Traffic-Aware Online Network Selection in Heterogeneous Wireless Networks," *IEEE Transactions on Vehicular Technology*, vol.65, no.1, pp.381-397, 2016
6. X Xu, J Bao, H Cao, YD Yao, S Hu, "Energy-Efficiency-Based Optimal Relay Selection Scheme With a BER Constraint in Cooperative Cognitive Radio Networks," *IEEE Transactions on Vehicular Technology*, vol.65, no.1, pp.191-203, 2016

7. H Wang, YD Yao, R Wang, L Shen, "Coordinated jamming and communications in an MC-CDMA system," *IEEE Transactions on Aerospace and Electronic Systems*, vol.51, no.4, pp.3151-3160, 2015
8. Guoru Ding; Jinlong Wang; Qihui Wu; Yu-Dong Yao; Rongpeng Li; Honggang Zhang; Yulong Zou, "On the limits of predictability in real-world radio spectrum state dynamics: from entropy theory to 5G spectrum sharing," in *Communications Magazine, IEEE*, vol.53, no.7, pp.178-183, July 2015
9. Yulong Zou; Jia Zhu; Liuqing Yang; Ying-chang Liang; Yu-dong Yao, "Securing physical-layer communications for cognitive radio networks," in *Communications Magazine, IEEE*, vol.53, no.9, pp.48-54, September 2015
10. Zhiyong Du; Qihui Wu; Panlong Yang; Yuhua Xu; Jinlong Wang; Yu-Dong Yao, "Exploiting User Demand Diversity in Heterogeneous Wireless Networks," in *Wireless Communications, IEEE Transactions on*, vol.14, no.8, pp.4142-4155, Aug. 2015
11. Di Zheng; Yao Zhao; Yu-Dong Yao, "An Investigation of Cooperative Slotted ALOHA with the Capture Effect," in *Communications Letters, IEEE*, vol.18, no.4, pp.572-575, April 2014
12. Zhiyong Du; Qihui Wu; Panlong Yang; Yuhua Xu; Yu-Dong Yao, "User-Demand-Aware Wireless Network Selection: A Localized Cooperation Approach," in *Vehicular Technology, IEEE Transactions on*, vol.63, no.9, pp.4492-4507, Nov. 2014
13. Sanqing Hu; Yu-Dong Yao, "Adaptive time division duplexing network with network coding embedded two-way relay," in *Communications, IET*, vol.8, no.12, pp.2153-2161, August 14 2014
14. Mitola, J.; Guerci, J.; Reed, J.; Yu-Dong Yao; Yingying Chen; Clancy, T.; Dwyer, J.; Hongbin Li; Hong Man; McGwier, R.; Yi Guo, "Accelerating 5G QoE via public-private spectrum sharing," in *Communications Magazine, IEEE*, vol.52, no.5, pp.77-85, May 2014
15. Gongzheng Zhang; Aiping Huang; Hanguan Shan; Jian Wang; Quek, T.Q.S.; Yu-Dong Yao, "Design and Analysis of Distributed Hopping-Based Channel Access in Multi-Channel Cognitive Radio Systems with Delay Constraints," in *Selected Areas in Communications, IEEE Journal on*, vol.32, no.11, pp.2026-2038, November 2014
16. Sanqing Hu; Yu-Dong Yao; Zhuo Yang, "MAC protocol identification using support vector machines for cognitive radio networks," in *Wireless Communications, IEEE*, vol.21, no.1, pp.52-60, February 2014
17. Guoru Ding; Jinlong Wang; Qihui Wu; Linyuan Zhang; Yulong Zou; Yu-Dong Yao; Yingying Chen, "Robust Spectrum Sensing With Crowd Sensors," in *Communications, IEEE Transactions on*, vol.62, no.9, pp.3129-3143, Sept. 2014
18. Nansai Hu; Yu-Dong Yao; Zhuo Yang, "Analysis of Cooperative TDMA in Rayleigh Fading Channels," in *Vehicular Technology, IEEE Transactions on*, vol.62, no.3, pp.1158-

1168, March 2013

19. Qihui Wu; Ding, G.; Jinlong Wang; Yu-Dong Yao, "Spatial-Temporal Opportunity Detection for Spectrum-Heterogeneous Cognitive Radio Networks: Two-Dimensional Sensing," in *Wireless Communications, IEEE Transactions on* , vol.12, no.2, pp.516-526, February 2013
20. Guoru Ding; Qihui Wu; Yu-Dong Yao; Jinlong Wang; Yingying Chen, "Kernel-Based Learning for Statistical Signal Processing in Cognitive Radio Networks: Theoretical Foundations, Example Applications, and Future Directions," in *Signal Processing Magazine, IEEE* , vol.30, no.4, pp.126-136, July 2013
21. N. Hu, Y. D. Yao, and Z. Yang, "Analysis of cooperative TDMA in Rayleigh fading channels," *IEEE Transactions on Vehicular Technology*, vol. 62, 2013.
22. Q. Wu, G. Ding, J. Wang, and Y. D. Yao, "Spatial-temporal opportunity detection for spectrum-heterogeneous cognitive radio networks: Two-dimensional sensing," *IEEE Transactions on Communications*, vol. 61, 2013.
23. Y. Zou, Y. D. Yao, and B. Zheng, "Diversity-multiplexing tradeoff in selective cooperation for cognitive radio," *IEEE Transactions on Communications*, vol. 60, no. 9, pp. 2467-2481, Sept. 2012.
24. Y. Zou, Y. Yao, B. Zheng, "Cooperative relay techniques for cognitive radio systems: Spectrum sensing and secondary user transmissions," *IEEE Communications Magazine*, vol. 50, no. 4, pp. 98-103, Apr. 2012.
25. Y. Xu, J. Wang, Q. Wu, A. Anpalagan, and Y. D. Yao, "Opportunistic spectrum access in unknown dynamic environment: A game-theoretic stochastic learning solution," *IEEE Transactions on Wireless Communications*, vol. 11, no. 4, 1380-1391, Apr. 2012.
26. Y. Zou, Y. D. Yao, and B. Zheng, "Opportunistic distributed space-time coding for decode-and-forward cooperation systems," *IEEE Transactions on Signal Processing*, vol. 60, no. 4, pp. 1766-1781, Apr. 2012.
27. Y. Xu, J. Wang, Q. Wu, A. Anpalagan, and Y. D. Yao, "Opportunistic spectrum access in cognitive radio networks: Global optimization using local interaction games," *IEEE Journal of Selected Topics in Signal Processing*, vol. 6, no. 2, pp. 180-194, Apr. 2012.
28. N. Hu, Y. D. Yao, and J. Mitola, "Most active band (MAB) attack and countermeasures in a cognitive radio network," *IEEE Transactions on Wireless Communications*, vol. 11, no. 3, pp. 898-902, March 2012.
29. S. Hu, Y. D. Yao, and Z. Yang, "Cognitive MAC protocols for secondary users sharing a common channel with TDMA primary users," *Journal of Wireless Communications and Mobile Computing*, 2011.
30. C. Chen, H. Cheng, and Y. D. Yao, "Cooperative spectrum sensing in cognitive radio networks in the presence of the primary user emulation attack," *IEEE Transactions on*

Wireless Communications, vol. 10, no. 7, pp. 2135-2141, July 2011.

31. D. Zheng and Y. D. Yao, "Slotted Aloha with multi-AP diversity and transmit beamforming," *EURASIP Journal on Wireless Communications and Networking*, Special Issue on Multiple Access Communications in Future-Generation Wireless Networks, 2011.
32. Y. Zou, Y. D. Yao, and B. Zheng, "A selective-relay based cooperative spectrum sensing scheme without dedicated reporting channels in cognitive radio networks," *IEEE Transactions on Wireless Communications*, vol. 10, no. 4, pp. 1188-1198, April 2011.
33. Y. Zou, Y. D. Yao, and B. Zheng, "Cognitive transmissions with multiple relays in cognitive radio networks," *IEEE Transactions on Wireless Communications*, vol. 10, no. 2, pp. 648-659, Feb. 2011.
34. Y. Zou, Y. D. Yao, and B. Zheng "A cooperative sensing based cognitive relay transmission scheme without a dedicated sensing relay channel in cognitive radio networks," *IEEE Transactions on Signal Processing*, vol. 59, no. 2, pp. 854-858, Feb. 2011.
35. Y. Zou, J. Zhu, B. Zheng, and Y. D. Yao, "An adaptive cooperation diversity scheme with best-relay selection in cognitive radio networks," *IEEE Transactions on Signal Processing*, vol. 58, no. 10, pp. 5438-5445, Oct. 2010.
36. H. Cheng and Y. D. Yao, "Power adaptation for multi-hop networks with end-to-end BER requirements," *IEEE Transactions on Vehicular Technology*, vol. 59, no. 7, pp. 3445-3454, Sept. 2010.
37. Y. Zuo, Y. D. Yao, and B. Zheng "Outage probability analysis of cognitive transmissions: Impact of spectrum sensing overhead," *IEEE Transactions on Wireless Communications*, vol. 9, no. 8, pp. 2676-2688, Aug. 2010.
38. H. Cheng and Y. D. Yao, "Link optimization for energy-constrained wireless networks with packet retransmissions," *Journal of Wireless Communications and Mobile Computing (Wiley InterScience)*, 2010.
39. Z. Yang, Y. D. Yao, X. Li, and D. Zheng, "A TDMA-based MAC protocol with cooperative diversity," *IEEE Communications Letters*, vol. 14, no. 6, pp. 542-544, June 2010.
40. H. Cheng and Y. D. Yao, "Cognitive-relay based inter-cell interference cancelation in cellular systems," *IEEE Transactions on Vehicular Technology*, vol. 59, no. 4, pp. 1901-1909, May 2010.
41. H. Li, M. Syed, Y. D. Yao, and T. Kamakarlis, "Spectrum Sharing in an ISM Band: Outage Performance of a Hybrid DS/FH Spread Spectrum System with Beamforming," *EURASIP Journal on Advances in Signal Processing*, Special Issue on Dynamic Spectrum Access for Wireless Networking, 2009.
42. X. Hu and Y. D. Yao, "Reverse link outage probabilities of multicarrier CDMA systems with beamforming in the presence of carrier frequency offset," *EURASIP Journal on*

Wireless Communications and Networking, Special Issue on Multicarrier Systems, 2008.

43. H. Li, Y. D. Yao, and J. Yu, "Outage probabilities of wireless systems with LCMV beamforming," *IEEE Transactions on Wireless Communications*, vol. 6, no. 10, pp. 3515-3523, Oct. 2007.
44. Z. Cao, U. Tureli, and Y. D. Yao, "Low-complexity orthogonal spectral signal construction for generalized OFDMA uplink with frequency synchronization errors," *IEEE Transactions on Vehicular Technology*, vol. 56, no. 3, pp. 1143-1154, May 2007.
45. D. J. Shyy, J. Yu, and Y. D. Yao, "Modeling and performance evaluation of 3G CDMA networks with beamforming," *Wireless Personal Communications (Springer)*, vol. 39, no. 1, pp. 1-13, Oct. 2006.
46. H. Li, Y. D. Yao, and J. Yu, "Outage probabilities of wireless systems with imperfect beamforming," *IEEE Transactions on Vehicular Technology*, vol. 55, no. 5, pp. 1503-1515, Sept. 2006.
47. E. S. El-Alfy, Y. D. Yao, and H. Heffes, "A learning approach for prioritized handoff channel allocation in mobile multimedia networks," *IEEE Transactions on Wireless Communications*, vol. 5, no. 7, pp. 1651-1660, July 2006.
48. M. Choi, Y. D. Yao, and H. Heffes, "Discrete-time analysis of a CPCH access scheme in W-CDMA," *IEEE Transactions on Wireless Communications*, vol. 5, no. 7, pp. 1575-1578, July 2006.
49. J. Yu, Y. D. Yao, A. F. Molisch, and J. Zhang, "Performance evaluation of CDMA reverse links with imperfect beamforming in a multicell beamforming model," *IEEE Transactions on Vehicular Technology*, vol. 55, no. 3, pp. 1019-1031, May 2006.
50. L. Zhou, Y. D. Yao, H. Heffes, and R. Zhang, "Reduced-rate retransmissions for spread-spectrum packet radio multimedia networks," *IEEE Transactions on Wireless Communications*, vol. 5, no. 4, pp. 779-788, April 2006.
51. H. Li, M. Syed, and Y. D. Yao, "Outage performance of a hybrid DS/FH spread-spectrum signal in an ISM band," *International Journal of Network Management (Wiley InterScience)*, Special Issue on Management of Interference in Wireless Networks, vol. 16, no. 2, pp. 115-129, March 2006.
52. J. Yu and Y. D. Yao, "Detection performance of chaotic spreading LPI waveforms," *IEEE Transactions on Wireless Communications*, vol. 4, no. 2, pp. 390-396, 2005.
53. J. Yu, Y. D. Yao, and J. Zhang, "Reverse Link Capacity of Power-Controlled CDMA Systems with Beamforming," *IEEE Transactions on Vehicular Technology*, vol. 53, no. 5, pp. 1423-1433, September 2004.
54. Z. Cao, U. Tureli, and Y. D. Yao, "Deterministic multiuser carrier frequency offset estimation for interleaved OFDMA uplink," *IEEE Transactions on Communications*, vol. 52, no. 9, September 2004.

55. M. Choi, Y. D. Yao, and H. Heffes, "A CPCH access method for prioritized services in W-CDMA," *IEEE Communications Letters*, vol. 8, no. 1, pp. 9-11, January 2004.
56. L. Zhou, Y. D. Yao, H. Heffes, and R. Zhang, "Investigation of slotted ALOHA under Nakagami fading with synchronized and asynchronous cochannel," *IEEE Transactions on Vehicular Technology*, vol. 52, no. 6, pp. 1642-1651, November 2003.
57. J. Yu and Y. D. Yao, "Reverse link capacity of SIR-based power-controlled CDMA systems with antenna arrays," *Journal of Wireless Communications and Mobile Computing (Wiley InterScience)*, Special Issue on Ultra Broadband Wireless Communications, vol. 3, no. 6, pp. 759-772, September 2003.
58. L. Li, Y. D. Yao, and H. Li, "Transmit diversity and linear and decision feedback equalizations for frequency selective channels," *IEEE Transactions on Vehicular Technology*, vol. 52, no. 5, pp. 1217-1231, September 2003.
59. L. Li, H. Li, and Y. D. Yao, "Channel estimation and interference suppression for space-time coded systems in frequency-selective fading channels," *Journal of Wireless Communications and Mobile Computing (Wiley InterScience)*, Special Issue on Adaptive Antennas and MIMO Systems, vol. 2, no. 7, pp. 751-761, November 2002.
60. H. Li, L. Li, and Y. D. Yao, "Channel estimation and interference suppression in frequency-selective fading channels," *IEE Electronics Letters*, vol. 38, no. 8, pp. 383-385, April 2002.
61. Y. D. Yao, "An effective go-back-N ARQ scheme for nonstationary channels," *IEEE Transactions on Communications*, vol. 43, no. 1, Jan. 1995.
62. A. U. H. Sheikh, Y. D. Yao, and S. Cheng, "Throughput enhancement of direct-sequence spread-spectrum packet radio networks by adaptive power control," *IEEE Transactions on Communications*, vol. 42, no. 3, Mar. 1994.
63. Y. D. Yao and A. U. H. Sheikh, "Bit error probabilities of NCFSK and DPSK signals in microcellular mobile radio systems," *IEE Electronics Letters*, vol. 28, no. 4, Feb. 1992.
64. Y. D. Yao and A. U. H. Sheikh, "Performance analysis of microcellular mobile radio systems with shadowed cochannel interferers," *IEE Electronics Letters*, vol. 28, no. 9, Apr. 1992.
65. Y. D. Yao and A. U. H. Sheikh, "Investigations into cochannel interference in microcellular mobile radio systems," *IEEE Transactions on Vehicular Technology*, vol. 41, no. 2, May 1992.
66. Y. D. Yao and A. U. H. Sheikh, "Outage probability analysis for microcell mobile radio systems with cochannel interferers in Rician/Rayleigh fading environment," *IEE Electronics Letters*, vol. 26, no. 13, June 1990.
67. A. U. H. Sheikh, Y. D. Yao, and X. Wu, "The ALOHA systems in shadowed mobile radio channels with slow or fast fading," *IEEE Transactions on Vehicular Technology*, vol. 39, no.

4, Nov. 1990.

Conference Publications

1. H Wang, YD Yao, W Qian, F Lure, "Applying matrix factorization in data reconstruction for heart disease patient classification," 17th International Conference on E-health Networking, Application & Services (HealthCom), 2015
2. Y Zhou, YD Yao, "Secondary user scheduling in cognitive radio networks with transmit beamforming for interference mitigation," Sarnoff Symposium, 2015 36th IEEE, 2015
3. R Alhamad, H Wang, YD Yao, "Reporting Channel Design and Analysis in Cooperative Spectrum Sensing for Cognitive Radio Networks," Vehicular Technology Conference (VTC Fall), 2015 IEEE 82nd, 2015
4. Shahid, H.; Yu-Dong Yao, "Algorithm and experimentation of frequency hopping, band hopping, and transmission band selection using a cognitive radio test bed," in *Wireless and Optical Communication Conference (WOCC), 2014 23rd* , vol., no., pp.1-5, 9-10 May 2014
5. Sanqing Hu; Ye Ouyang; Yu-Dong Yao; Fallah, M.H.; Wenyuan Lu, "A study of LTE network performance based on data analytics and statistical modeling," in *Wireless and Optical Communication Conference (WOCC), 2014 23rd* , vol., no., pp.1-6, 9-10 May 2014
6. Nansai Hu; Yu-Dong Yao, "Identification of legacy radios in a cognitive radio network using a radio frequency fingerprinting based method," in *Communications (ICC), 2012 IEEE International Conference on* , vol., no., pp.1597-1602, 10-15 June 2012
7. Nansai Hu; Yu-Dong Yao, "Radio access behavior (RAB) based cognitive radio classification and identification," in *Communications (ICC), 2012 IEEE International Conference on* , vol., no., pp.5588-5592, 10-15 June 2012
8. Sanqing Hu; Yu-Dong Yao; Sheikh, A.U., "Slotted Aloha for cognitive radio users and its tagged user analysis," in *Wireless and Optical Communications Conference (WOCC), 2012 21st Annual* , vol., no., pp.1-5, 19-21 April 2012
9. Sanqing Hu; Yu-Dong Yao; Zhuo Yang, "MAC protocol identification approach for implement smart cognitive radio," in *Communications (ICC), 2012 IEEE International Conference on* , vol., no., pp.5608-5612, 10-15 June 2012
10. Sanqing Hu; Yu-Dong Yao; Sheikh, A.U., "Slotted Aloha for cognitive radio users and its tagged user analysis," *Wireless and Optical Communications Conference (WOCC), 2012 21st*

Annual , vol., no., pp.1-5, 19-21 April 2012

11. Yulong Zou; Yu-Dong Yao; Baoyu Zheng, "A Cooperative Spectrum Sensing Scheme without Dedicated Reporting Channels: Interference Impact on Primary Users," *Global Telecommunications Conference (GLOBECOM 2011)*, 2011 IEEE , vol., no., pp.1-5, 5-9 Dec. 2011
12. Sanqing Hu; Yu-Dong Yao; Zhuo Yang; Di Zheng, "Cog-PRMA protocol for CR users sharing a common channel with TDMA primary users," *Wireless and Optical Communications Conference (WOCC)*, 2011 20th Annual , vol., no., pp.1-5, 15-16 April 2011
13. Sanqing Hu; Yu-Dong Yao; Sheikh, A.U.; Haleem, M.A.; , "Tagged user approach for finite-user finite-buffer S-Aloha analysis in AWGN and frequency selective fading channels," *Sarnoff Symposium*, 2011 34th IEEE , vol., no., pp.1-5, 3-4 May 2011
14. Yulong Zou; Jia Zhu; Baoyu Zheng; Sulan Tang; Yu-Dong Yao; , "A Cognitive Transmission Scheme with the Best Relay Selection in Cognitive Radio Networks," *Global Telecommunications Conference (GLOBECOM 2010)*, 2010 IEEE , vol., no., pp.1-5, 6-10 Dec. 2010
15. Zhuo Yang; Yu-Dong Yao; Di Zheng; , "TDMA for primary users and CSMA for secondary users in a cognitive radio network," *Wireless and Optical Communications Conference (WOCC)*, 2010 19th Annual , vol., no., pp.1-5, 14-15 May 2010
16. Zhuo Yang; Yu-Dong Yao; Sheng Chen; Haibo He; Di Zheng; , "MAC protocol classification in a cognitive radio network," *Wireless and Optical Communications Conference (WOCC)*, 2010 19th Annual , vol., no., pp.1-5, 14-15 May 2010
17. Xiaochen Li; Haibo He; Yu-Dong Yao; , "Reinforcement learning based adaptive rate control for delay-constrained communications over fading channels," *Neural Networks (IJCNN)*, The 2010 International Joint Conference on , vol., no., pp.1-7, 18-23 July 2010
18. Yulong Zou; Yu-Dong Yao; , "Spectrum efficiency of cognitive relay transmissions with cooperative diversity in cognitive radio networks," *Communication Systems, Networks and Applications (ICCSNA)*, 2010 Second International Conference on , vol.1, no., pp.59-62, June 29 2010-July 1 2010
19. Qiao Cai; Sheng Chen; Xiaochen Li; Nansai Hu; Haibo He; Yu-Dong Yao; Mitola, J.; , "An integrated incremental self-organizing map and hierarchical neural network approach for cognitive radio learning," *Neural Networks (IJCNN)*, The 2010 International Joint Conference on , vol., no., pp.1-6, 18-23 July 2010
20. Zhuo Yang; Yu-Dong Yao; Di Zheng; , "Random access in a cognitive radio network with slotted Aloha for primary users and CSMA for secondary users," *Sarnoff Symposium*, 2010

IEEE , vol., no., pp.1-5, 12-14 April 2010

21. Yulong Zou; Yu-Dong Yao; Baoyu Zheng; , "Spectrum sensing and data transmission tradeoff in cognitive radio networks," *Wireless and Optical Communications Conference (WOCC), 2010 19th Annual* , vol., no., pp.1-5, 14-15 May 2010
22. Peng Zhang; Yu-Dong Yao; Fajanda, E.; Moore, H.; Singh, H.; , "Impacts of different arm structures of reflector IRA: Wire, coplanar plate, and bi-conical arms," *Sarnoff Symposium, 2009. SARNOFF '09. IEEE* , vol., no., pp.1-5, March 30 2009-April 1 2009
23. Di Zheng; Yu-Dong Yao; , "Throughput and delay analysis of two-tier slotted Aloha," *Wireless and Optical Communications Conference, 2009. WOCC 2009. 18th Annual* , vol., no., pp.1-4, 1-2 May 2009
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