

Curriculum Vitae

IDENTIFICATION

Name: Octavia A. Dobre

Position: Full Professor and Research Chair

University/Faculty/Department: Memorial University, Canada

Faculty of Engineering and Applied Science
Department of Electrical and Computer Engineering

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ACADEMIC BACKGROUND

Degree	Year Received	Discipline/Field	Institution and Country
Doctor of Philosophy (Ph.D.)	2000	Telecommunications	Polytechnic University (formerly Institute) of Bucharest
Diploma of Engineer	1991	Telecommunications	Polytechnic University (formerly Institute) of Bucharest

PROFESSIONAL EXPERIENCE

Position Held	Department/Faculty/Organization/Country	Period (year)	
		From	To
Full Professor and Research Chair	Department of Electrical and Computer Engineering, Faculty of Engineering and Applied Science, Memorial University (MUN)	2016	present
Associate Professor		2010	2015
Visiting Professor	Massachusetts Institute of Technology (MIT), USA	Fall 2013	
Visiting Professor	Université de Bretagne Occidentale (UBO), France	Summer 2013	
Assistant Professor	Department of Electrical and Computer Engineering, Faculty of Engineering and Applied Science, MUN	2005	2010
Research Associate	Center for Communications and Signal Processing Research, Department of Electrical and Computer	2002	2005

	Engineering, New Jersey Institute of Technology, USA		
Fulbright Postdoctoral Fellow	Wireless Information Systems Engineering Laboratory, Department of Electrical and Computer Engineering, Stevens Institute of Technology, USA	2001	2002
Royal Society Postdoctoral Fellow	Wireless Communications Group, Department of Electrical and Computer Engineering, Westminster University, UK	2000	2000
Assistant Professor	Department of Remote Control and Electronics in Transport, Polytechnic University of Bucharest, Romania	2000	2001
Lecturer	Department of Remote Control and Electronics in Transport, Polytechnic University of Bucharest, Romania	1993	2000
Tempus Postgraduate Scholar	Department of Electrical and Computer Engineering, Katholieke Universiteit Leuven, Belgium	1993	1993
Research Associate	Center of Microtechnology, Bucharest, Romania	1992	1993
Engineer	Telecommun. Institute, Bucharest, Romania	1991	1992

AWARDS, HONOURS AND SCHOLARSHIPS

Name of Award/Honour/Scholarship	Funding Organization	Year Received
Best Paper Award	IEEE IWCMC, Valencia, Spain	2017
President's Award for Outstanding Research	Memorial University, Canada	2015
Outstanding Service Award	IEEE Communications Society, Signal Processing and Electronics Technical Committee	2015
Dean's Award for Excellence in Graduate Student Supervision	Faculty of Engineering and Applied Science, MUN, Canada	2014
Dean's Outstanding Research Award	Faculty of Engineering and Applied Science, MUN, Canada	2013
Visiting Professor	Massachusetts Institute of Technology, USA	2013

Visiting Professor	Université de Bretagne Occidentale, France	2013
Best Paper GOLD Award (Co-author), IEEE NECEC, Canada	Institute of Electrical and Electronics Engineers (IEEE)	2008
Fulbright Fellowship	Fulbright Academy, USA	2001
Royal Society Postdoctoral Fellowship	Royal Society, UK	2000
Tempus European Scholarship	Tempus Europe	1993
Outstanding Student Achievement Scholarship	Polytechnic University of Bucharest, Romania	1991
Outstanding Student Achievement Scholarship	Polytechnic University of Bucharest, Romania	1990

PUBLICATIONS

Impact of Publications

Due to the rapid evolution of the research field, high impact journal publications are the most prestigious in this area of research. Refereed conference publications are also prestigious, especially those published in world-renowned conferences for which the acceptance rate is around 35%. Both prestigious journal and conference publications provide means of rapid dissemination of the research findings in this fast advancing field when compared with books.

The journal papers appeared in world-renowned refereed publications, such that those of the *Institute of Electrical and Electronics Engineers (IEEE)*, *Institution of Engineering and Technology (IET)*, and *European Association for Signal Processing (EURASIP)*, with high impact factors. Examples are *IEEE Communications Surveys and Tutorials* (impact factor 17.188), *IEEE Journal of Selected Topics in Signal Processing* (impact factor 5.301), *IEEE Transactions on Wireless Communications* (impact factor 4.951), *IEEE Transactions on Broadcasting* (impact factor 3.765), *IEEE Transactions on Vehicular Technology* (impact factor 4.066), *IEEE Transactions on Communications* (impact factor 4.058), *IEEE Signal Processing Letters* (impact factor 2.528), and *IEEE Communications Letters* (impact factor 1.988).

The conference papers were published in the proceedings of the flagship conferences of the *IEEE Communications Society*, *IEEE Signal Processing Society*, *IEEE Vehicular Technology Society*, and *IEEE Measurement and Instrumentation Society*, as well as other societies. For example, around half of the conference papers were published in proceedings of conferences with acceptance rate between 30% and 35%, such as *IEEE Global Communications Conference (Globecom)*, *IEEE International Conference on Communications (ICC)*, and *IEEE Military Communications Conference (MILCOM)*.

Many papers have been highly cited. For example, according to Google Scholar, the 85th journal paper in the list below (published in April 2007) was cited +770 times. The number of citations since 2012 is +2,460, with the h-index 23 and the i10-index 55 (according to Google Scholar).

	Published/Accepted	Under Review	Presented
Papers in international refereed journals	90 (24 in 2017, 15 in 2016, 14 in 2015; 2 invited)	6	
Papers in international refereed conferences	126 (8 in 2017, 8 in 2016, 17 in 2015; 8 invited; 60 in conferences with acceptance rates around 30-35%)		The papers were presented either by the students or I.
Books/ Book chapters	3		
Tutorials	5 (1 in 2017, 2 in 2014, 1 at IEEE ICC 2014)		
Papers in international non-refereed conferences	16		
Technical reports	35 (1 in 2017, 3 in 2016, 1 in 2015)		
Invited talks and conference presentations			48 (7 in 2017, 4 in 2016, 2 in 2015; 4 plenary)
Government publications	5		

1. Refereed Contributions¹

Refereed Journal Contributions

1. O. Omomukuyo, S. Zhang, O. A. Dobre, R. Venkatesan, and T. Ngatched, “Discrete FRFT-based frame and frequency synchronization for coherent optical systems,” *IEEE Photonics Technology Letters*, vol. 29, issue 23, pp. 2016-2019, Dec. 2017.
2. M. Zheng, A. Yahav, O. A. Dobre, and V. Poor, “Energy-efficient power allocation for MIMO-NOMA with multiple users in a cluster,” accepted *IEEE Access*, Nov. 2017.
3. X. Lin, Y. A. Eldemerdash, O. A. Dobre, S. Zhang and C. Li, “Modulation classification using received signal’s amplitude distribution for coherent receivers,” *IEEE Photonics Letters*, vol. 29, issue 21, pp. 1872-1875, Nov. 2017.
4. G. Tsiropoulos, A. Yadav, M. Zheng, and O. A. Dobre, “Cooperation in 5G HetNets: Advanced spectrum access and D2D assisted communications,” accepted *IEEE Wireless Communications*, June 2017.
5. S. Kafaie, M. H. Ahmed, Y. Chen, and O. A. Dobre, “Performance analysis of network coding with IEEE 802.11 DCF in multi-hop wireless networks,” accepted *IEEE Transactions on Mobile Computing*, Aug. 2017.
6. X. Ouyang, O. A. Dobre, G. Yong-Liang, and J. Zhao, “Chirp spread spectrum towards the Nyquist signaling rate – Orthogonality condition and applications,” accepted *IEEE Signal Processing Letters*, July 2017.
7. A. Yadav, M. Goonewardena, W. Ajib, O. A. Dobre, and H. Elbiaze, “Energy management for energy harvesting wireless sensors with adaptive retransmission,” accepted *IEEE Transactions on Communications*, July 2017.
8. K. Chinmoy, S. Ghose, T. M. N. Ngatched, O. A. Dobre, T. Q. Duong, and R. Bose, “Effects of CSI knowledge on secrecy of threshold-selection decode-and-forward relaying,” *IEEE Access*, vol. 5, pp. 19393-19408, Dec. 2017.

¹ The names of the students and postdoctoral fellows who co-authored the papers are underlined.

9. M. Zeng, A. Yadav, O. A. Dobre, G. Tsiropoulos, and V. Poor, "On the sum rate of MIMO-NOMA and MIMO-OMA systems," vol. 6, pp. 534 – 537, *IEEE Wireless Communications Letters*, Aug. 2017.
10. O. Omomukuyo, O. A. Dobre, R. Venkatesan, and T. M. N. Ngatched, "Synchronization for next-generation high-speed coherent optical transmission systems: A robust and bandwidth-efficient method," *IEEE Instrumentation and Measurement Magazine*, vol. 20, issue 5, pp. 39 – 45, Oct. 2017.
11. A. Amari, O. A. Dobre, R. Vankatesan, O. S. S. Kumar, P. Ciblat, and Y. Jaouen, "A survey on fiber nonlinearity compensation for 400 Gbps and beyond optical communication systems," accepted *IEEE Communications Surveys and Tutorials*, June 2017.
12. T. Yacoob, O. A. Dobre, R. Youssef, and E. Radoi, "Optimal selection of Fourier coefficients for compressed sensing-based UWB channel estimation," vol. 6, pp. 466 – 469, *IEEE Wireless Communications Letters*, Aug. 2017.
13. S. M. R. Islam, M. Zeng, and O. A. Dobre, "NOMA in 5G systems: Exciting possibilities for enhancing spectral efficiency," *IEEE 5G Tech Focus*, vol. 2, pp. 1-6, June 2017. ***Invited***
14. M. Zeng, A. Yadav, O. A. Dobre, G. Tsiropoulos, and V. Poor, "Capacity comparison between MIMO-NOMA and MIMO-OMA with multiple users in a cluster," *IEEE Journal on Selected Areas on Communications*, vol. 35, pp. 2413-2424, Oct. 2017.
15. I. Ah-Nahhal, O. A. Dobre, and S. Ikki, "Quadrature spatial modulation decoding complexity: Study and reduction," *IEEE Wireless Communications Letters*, vol. 6, pp. 378-381, June 2017.
16. A. Yadav, O. A. Dobre, and N. Ansari, "Energy and traffic aware full duplex communications for 5G systems," *IEEE Access*, vol. 5, pp. 11278-11290, Dec. 2017 ***Invited***
17. Y. Eldemerdash, O. A. Dobre, O. Ureten, and T. Yensen, "Identification of cellular networks for intelligent radio measurements," *IEEE Transactions in Instrumentation and Measurement*, vol. 66, pp. 2204-2211, Aug. 2017.
18. A. A. Esswie, M. El-Absi, O. A. Dobre, S. Ikki, and T. Kaiser, "Spatial channel estimation based FDD-MIMO interference alignment systems," *IEEE Wireless Communications Letters*, vol. 6, pp. 254-257, Apr. 2017.
19. X. Ouyang, O. A. Dobre and J. Zhao, "Unbiased channel estimation based on the discrete Fresnel transform for CO-OFDM systems," *IEEE Photonics Technology Letter*, vol. 29, pp. 691-694, Apr. 2017.
20. S. Zhang, D. Chang, O. A. Dobre, O. Omomukuyo, X. Lin, and R. Venkatesan, "Training symbol-based equalization for quadrature duobinary PDM-FTN systems," *IEEE Photonics Technology Letter*, vol. 29, pp. 454-457, Mar. 2017.
21. S. Kafaie, Y. Chen, M. H. Ahmed, and O. A. Dobre, "FlexONC: Joint cooperative forwarding and network coding with precise encoding conditions," vol. 6, pp. 7262 – 7277, *IEEE Transactions on Vehicular Technologies*, Aug. 2017.
22. M. Mohammadkarimi, O. A. Dobre, and M. Win, "Number of transmit antennas detection using time-diversity of the fading channel," *IEEE Transactions on Signal Processing*, vol. 65, pp. 4031-4046, Aug. 2017.
23. M. Marey and O. A. Dobre, "Automatic identification of space-frequency block coding for OFDM systems," accepted in *IEEE Transactions on Wireless Communications*, vol. 16, pp. 117 – 128, DOI: 10.1109/TWC.2016.2619676, Jan. 2017.
24. Y. Omomukuyo, D. Chang, O. A. Dobre, R. Venkatesan, and T. N. Ngatched, "Robust frame and frequency synchronization based on Alamouti coding for RGI-CO-OFDM," *IEEE Photonics Technology Letters*, vol. 28, pp. 2783-2786, Oct. 2016.
25. S. M. R. Islam, N. Avazov, O. A. Dobre, and K.-S. Kwak "Power-domain non-orthogonal multiple access (NOMA) in 5G systems: Potentials and challenges," *IEEE Communications Surveys and Tutorials*, vol. 19, pp. 721 – 742, Second Quarter 2017.

26. L. Han, F. Gao, Z. Li, and O. A. Dobre, "Low complexity automatic modulation classification based on order statistics," *IEEE Transactions on Wireless Communications*, vol. 16, issue 1, pp. 400 – 411, Jan. 2017.
27. Y. A. Eldemerdash, O. A. Dobre, and M. Oner, "Signal identification for multiple-antenna wireless systems: Achievements and challenges," *IEEE Communications Surveys and Tutorials*, vol. 18, pp. 1524 – 1551, Third quarter, 2016.
28. M. Marey and O. A. Dobre, "Iterative receiver design for uplink OFDMA cooperative systems," *IEEE Transactions on Broadcasting*, vol. 62, pp. 936 – 947, Dec. 2016.
29. V.-D. Nguyen, T. Q. Duong, O. A. Dobre, and O.-S. Shin, "Joint information and jamming beamforming for secrecy rate maximization in cognitive radio networks," *IEEE Transactions Information Forensics and Security*, vol. 11, pp. 2609 – 2623, Nov. 2016.
30. Y. A. Eldemerdash and O. A. Dobre, "On the identification of SM and Alamouti-coded SC-FDMA signals: A statistical-based approach," *IEEE Transactions on Vehicular Communications*, vol. 65, issue 12, pp. 10079 – 10084, Jan. 2016.
31. D. Chang, O. Omomukuyo, O. A. Dobre, and R. Venkatesan, "Robust faster-than-Nyquist PDM-mQAM systems with Tomlinson-Harashima precoding," *IEEE Photonics Technology Letter*, vol. 28, pp. 2106-2109, Oct. 2016.
32. F. Wang, O. A. Dobre, C. Chan, and J. Zhang, "Novel fold-based Kolmogorov-Smirnov modulation classifier," *IEEE Signal Processing Letters*, vol. 23, pp. 1003-1007, July 2016.
33. J. Zhang, F. Wang, O. A. Dobre, Z. Zhong, "Specific emitter identification via Hilbert-Huang transform in single-hop and relaying scenarios," *IEEE Transactions on Information Forensics and Security*, vol. 11, pp. 1192-1205, June 2016.
34. L. De Vito and O. A. Dobre, "A comprehensive sampling-based method for classification and parameter estimation of FSK signals," ELSEVIER Measurement, DOI: 10.1016/j.measurement.2015.12.038, Jan. 2016.
35. O. Amin, E. Bedeer, M. H. Ahmed, O. A. Dobre, and M. Slim-Alouini, "Opportunistic energy-aware amplify-and-forward cooperative systems with imperfect CSI," *IEEE Transactions on Vehicular Technology*, vol. 65, pp. 4875-7886, July 2016.
36. H. Mostafa, M. Marey, M. H. Ahmed, and O. A. Dobre, "Data detection algorithms for BICM alternate-relaying cooperative systems with multiple-antenna destination," *IET Communications*, vol. 65, pp. 3802-3807, May 2016.
37. O. Amin, E. Bedeer, M. H. Ahmed, and O. A. Dobre, "Energy efficiency - spectral efficiency trade-off: A multiobjective optimization approach," *IEEE Transactions on Vehicular Technology*, vol. 65, pp. 1975-1981, Apr. 2016.
38. E. Bedeer, O. A. Dobre, M. H. Ahmed, and K. Baddour, "A systematic approach to jointly optimize rate and power consumption for OFDM systems," *IEEE Transactions on Mobile Computing*, vol. 15, pp. 1305-1317, June 2016.
39. O. A. Dobre, "Signal identification for emerging intelligent radios: Classical problems and new challenges," ***Invited***—*IEEE Instrumentation and Measurement Magazine*, vol. 18, pp. 11-18, Apr. 2015.
40. M. Marey and O. A. Dobre, "Blind modulation classification for Alamouti STBC system with transmission impairments," *IEEE Wireless Communications Letters*, vol. 4, pp. 521-524, Oct. 2015.
41. H. Wang, O. A. Dobre, C. Li, and D. Popescu, "Blind cyclostationarity-based symbol period estimation for FSK signals," *IEEE Communications Letters*, vol. 19, pp. 1149-1152, July 2015.
42. Y. Zhang, R. Venkatesan, O. A. Dobre, and C. Li, "Novel compressed sensing-based channel estimation algorithm with near-optimal pilot placement scheme," *IEEE Transactions on Wireless Communications*, vol. 15, pp. 2590-2603, Dec. 2015.

43. A. Afana, T. Ngatched, and O. A. Dobre, "Spatial modulation in MIMO limited-feedback spectrum-sharing systems with mutual interference and channel estimation errors," *IEEE Communications Letters*, vol. 19, pp. 1754-1757, Oct. 2015.
44. A. Afana, T. Ngnatched, and O. A. Dobre, "Cooperative AF relaying with beamforming and limited feedback in cognitive radio networks," *IEEE Communications Letters*, vol. 19, pp. 491-494, Mar. 2015.
45. W. Jerjawi, Y. Eldemerdash, and O. A. Dobre, "Second-order cyclostationarity-based detection of LTE SC-FDMA signals for cognitive radio systems," *IEEE Transactions on Instrumentation and Measurement*, vol. 64, pp. 823-833, Mar. 2015.
46. N-Q. Nhan, T. Ngatched, O. A. Dobre, P. Rostaing, and E. Radoi, "Multiple-votes parallel symbol-flipping decoding algorithm for non-binary LDPC codes," *IEEE Communications Letters*, vol. 19, no. 6, pp. 905-908, June 2015.
47. O. Omomukuyo, D. Chang, O. A. Dobre et al., "Simple sampling clock synchronisation scheme for reduced-guard-interval coherent optical OFDM systems," *Electronics Letters*, vol. 51, pp. 2026-2028, Nov. 2015.
48. O. Omomukuyo, D. Chang, J. Zhu, O. A. Dobre et al., "Joint timing and frequency synchronization based on weighted CAZAC sequences for reduced-guard-interval CO-OFDM systems," vol. 23, pp. 5777-5788, *OSA Optics Express*, Mar. 2015.
49. Y. Eldemerdash, O. A. Dobre, and B. Liao, "Blind identification of SM and Alamouti STBC-OFDM signals," *IEEE Transactions on Wireless Communications*, vol. 14, pp. 972-982, Feb. 2015.
50. E. Bedeer, O. A. Dobre, M. H. Ahmed, and K. Baddour, "Rate-interference tradeoff in OFDM-based cognitive radio systems," *IEEE Transactions on Vehicular Technology*, vol. 64, pp. 4292-4298, Sept. 2015.
51. O. Amin, S. Ikki, M. H. Ahmed, and O. A. Dobre, "Performance analysis of multiple-relay cooperative systems with signal space diversity," *IEEE Transactions on Vehicular Technology*, vol. 64, pp. 3414-3425, Aug. 2015.
52. E. Karami and O. A. Dobre, "Identification of SM-OFDM and AL-OFDM signals based on their second-order cyclostationarity," *IEEE Transactions on Vehicular Technology*, vol. 64, pp. 942-953, Mar. 2015.
53. M. Mohammadkarimi and O. A. Dobre, "Blind identification of spatial multiplexing and Alamouti space-time block code via Kolmogorov-Smirnov (K-S) test," *IEEE Communications Letters*, vol. 18, no. 10, pp. 1711-1714, Oct. 2014.
54. G. Tsiropoulos, O. A. Dobre, M. H. Ahmed, and K. Baddour, "Radio resource allocation techniques for efficient spectrum access in cognitive radio networks," *IEEE Communications Surveys and Tutorials*, vol. 18, pp. 824-847, Sept. 2014.
55. M. Marey, O. A. Dobre, and B. Liao, "Classification of STBC systems over frequency-selective channels," *IEEE Transactions on Vehicular Technology*, vol. 64, pp. 2159-2164, July 2014. DOI: 10.1109/TVT.2014.2335415.
56. O. Amin, E. Bedeer, M. Ahmed, and O. A. Dobre, "A novel energy efficient scheme with a finite-rate feedback channel," *IEEE Wireless Communications Letters*, vol. 3, no. 5, pp. 497-500, Oct. 2014.
57. M. Marey and O. A. Dobre, "Blind modulation classification algorithm for single and multiple-antenna systems over frequency-selective channels," *IEEE Signal Processing Letters*, vol. 21, pp. 1098 – 1102, Sept. 2014.
58. M. Marey, O. A. Dobre, and B. Liao, "Second-order statistics based blind synchronization algorithm for two receive-antenna orthogonal STBC systems," *IEEE Communications Letters*, vol. 18, pp. 1115-1118, July 2014.
59. M. Marey, O. A. Dobre, and R. Inkol, "Blind STBC identification for multiple-antenna OFDM systems," *IEEE Transactions on Communications*, vol. 62, issue 5, pp. 1554-1567, May 2014.

60. E. Bedeer, O. A. Dobre, M. H. Ahmed, and K. Baddour, "A multiobjective optimization approach for optimal link adaptation of OFDM-based cognitive radio systems with imperfect spectrum sensing," *Transactions on Wireless Communications*, vol. 13, issue 4, pp. 2339-2352, Apr. 2014.
61. E. Bedeer, O. Amin, O. A. Dobre, M. Ahmed, and K. Baddour, "Energy-efficient power loading for OFDM-based cognitive radio systems with channel uncertainties," *IEEE Transactions on Vehicular Technology*, vol. 64, pp. 2672-2677, July 2014, DOI: 10.1109/TVT.2014.2342226.
62. Q. Zhang, O. A. Dobre, Y. Eldemerdash, S. Rajan, and R. Inkol, "Second-order cyclostationarity of BT-SCLD signals: Theoretical developments and applications to signal classification and blind parameter estimation," *IEEE Transactions on Wireless Communications*, vol. 12, pp. 1501 – 1511, Apr. 2013.
63. Y. Eldemerdash, M. Marey, O. A. Dobre, G. Karagiannidis, and R. Inkol, "Fourth-order statistics for blind classification of spatial multiplexing and Alamouti space-time block code signals," *IEEE Transactions on Communications*, vol. 61, pp. 2420-2431, June 2013.
64. M. Marey, O. A. Dobre, and R. Inkol, "A novel block timing and frequency synchronization algorithm for Alamouti STBC," *IEEE Communications Letters*, vol. 17, pp. 569-572, Mar. 2013.
65. L. Qian, C. Fang, O. A. Dobre, H. Liu, and J. Wu, "CA-MAC: A novel MAC protocol to alleviate congestion in wireless sensor networks," *Advances in Electrical and Computer Engineering*, vol. 13, pp. 41 – 46, Nov. 2013.
66. E. Bedder, O. A. Dobre, M. H. Ahmed, and K. Baddour, "Joint optimization of bit and power loading for multicarrier systems," *IEEE Wireless Communications Letters*, vol. 2, pp. 447-450, Aug. 2013.
67. M. S. Mühlhaus, M. Öner, O. A. Dobre, and F. K. Jondral, "A low complexity modulation classification algorithm for MIMO systems," *IEEE Communications Letters*, vol. 17, issue 10, pp. 1881-1884, Oct. 2013.
68. H. Mostafa, M. Marey, M. H. Ahmed, and O. A. Dobre, "Simplified maximum likelihood detector for alternate relaying cooperative systems," pp. 1899-1906, vol. 47, *IET Communications*, Nov. 2013.
69. S. Abraham, D. C. Popescu, and O. A. Dobre, "Joint beamforming and power control in downlink multiuser MIMO systems," *Wiley Journal on Wireless Communications and Mobile Computing*, vol. 15, pp. 552-560, DOI: 10.1002/wcm.2362, Mar. 2013.
70. H. Moustafa, M. Marey, M. H. Ahmed, and O. A. Dobre, "Decoding techniques for alternate-relaying BICM cooperative systems," *EURASIP Journal on Wireless Communications and Networking*, Sept. 2013, DOI:10.1186/1687-1499-2013-236.
71. T. Rasheed, M. H. Ahmed, O. A. Dobre, W. Jerjawi, and M. Saad, "User pairing in cooperative wireless network coding with network performance optimization," *EURASIP Journal on Wireless Communications and Networking*, July 2013, DOI:10.1186/1687-1499-2013-173.
72. A. Al-Habashna, O. A. Dobre, R. Venkatesan, and D. C. Popescu, "Second-order cyclostationarity of mobile WiMAX and LTE OFDM signals and application to spectrum awareness in cognitive radio systems," *IEEE Journal of Selected Topics in Signal Processing*, vol. 6, pp. 26-42, Feb. 2012.
73. D. Joshi, D. C. Popescu, and O. A. Dobre, "Joint spectral shaping and power control in spectrum overlay cognitive radio systems," *IEEE Transactions on Communications*, vol. 60, pp. 2396-2401, Sept. 2012.
74. M. Marey, O. A. Dobre, and R. Inkol, "Classification of space-time block codes based on second-order cyclostationarity with transmission impairments," *IEEE Transactions on Wireless Communications*, vol. 11, pp. 2574-2584, July 2012.
75. O. A. Dobre, M. Oner, S. Rajan, and R. Inkol, "Cyclostationarity-based robust algorithms for QAM signal identification," *IEEE Communications Letters*, vol. 16, pp. 12-15, Jan. 2012.
76. M. Marey, M. Samir, and O. A. Dobre, "EM-based joint channel estimation and IQ imbalances for OFDM systems," *IEEE Transactions on Broadcasting*, vol. 58, pp. 106-113, Mar. 2012.
77. M. H. Ahmed, O. A. Dobre, and R. Almatarneh, "Analytical evaluation of the performance of proportional fair scheduling in OFDMA-based wireless systems," accepted in Special Issue on

- Resource Allocation in Communications and Computing, *Hindawi Journal of Electrical and Computer Engineering*, DOI:10.1155/2012/680318, May 2012.
78. M. Oner and O. A. Dobre, "On the second-order cyclic statistics of signals in the presence of receiver impairments," *IEEE Transactions on Communications*, vol. 59, pp. 3278 – 3284, Dec. 2011.
 79. A. R. Ektia, S. Yarkan, K. A. Qaraqe, E. Serpedin, and O. A. Dobre, "Analysis of mobility impact on interference in cognitive radio networks," in *ELSEVIER PHYCOM*, vol. 9, pp. 212-222, July 2012.
 80. D. Joshi, D. C. Popescu, and O. A. Dobre, "Gradient-based threshold adaptation for energy detector in cognitive radio systems," *IEEE Communications Letters*, vol. 15, pp. 19-21, Jan. 2011.
 81. A. Punchihewa, Q. Zhang, O. A. Dobre, C. Spooner, S. Rajan, and R. Inkol, "On the cyclostationarity of OFDM and single carrier linearly digitally modulated signals in time dispersive channels: Theoretical developments and application," *IEEE Transactions on Wireless Communications*, vol. 9, pp. 2588 - 2599, Aug. 2010.
 82. D. C. Popescu, O. Popescu, and O. A. Dobre, "User admissibility in uplink wireless systems with multipath and target SINR requirements," *IEEE Communications Letters*, vol. 14, issue 2, pp. 106-108, Feb. 2010.
 83. O. A. Dobre, A. Abdi, Y. Bar-Ness, and W. Su, "Cyclostationarity-based modulation classification of linear digital modulations in flat fading channels," *Kluwer Wireless Personal Communications Journal*, vol. 54, pp. 699-717, Sept. 2010.
 84. F. Hameed, O. A. Dobre, and D. C. Popescu, "On the likelihood-based approach to modulation classification," *IEEE Transactions on Wireless Communications*, vol. 8, pp. 5884 – 5892, Dec. 2009.
 85. O. A. Dobre, S. Rajan, and R. Inkol, "Joint signal detection and classification based on first-order cyclostationarity for cognitive radios," *EURASIP Journal on Advances in Signal Processing, Special Issue on Dynamic Spectrum Access for Wireless Networking*, vol. 2009, pp. 1-12, July 2009.
 86. O. A. Dobre, A. Abdi, Y. Bar-Ness, and W. Su, "A survey of automatic modulation classification techniques: classical approaches and new trends," *IET Communications*, vol. 1, pp. 137-156, Apr. 2007. Cited +770 times according to Google Scholar.
 87. O. A. Dobre, I. Badescu, and M. Minea, "Computer model for a land mobile fading channel," in *Scientific Journal Facta Universitatis, Series: Electronics and Energetics*, vol. 13, pp. 167-174, Aug. 2000.
 88. O. A. Dobre, "Performance of error correcting codes on a Gilbert channel," *Scientific Bulletin-Polytechnic University of Bucharest, Series C: Electrical Engineering*, vol. 61, no.1-2, pp. 259-271, July 1999.
 89. O. A. Dobre, "Bit error rate degradation in a multimode fiber optic transmission link due to modal noise," *Scientific Bulletin-Polytechnic University of Bucharest, Series C: Electrical Engineering*, vol. 60, no. 1-2, Aug. 1998.
 90. O. A. Dobre, "Evaluation of forward error correction technique performance in channels with memory," *Revue Roumaine des Sciences Techniques, Série Électrotechnique et Énergétique*, tome 42, no. 4, Oct.-Dec. 1997.

2. **Other Refereed Contributions** – conference proceedings, papers presented at scholarly meetings or conferences, articles in professional or trade journals, government publications, etc.

Book Chapters

1. S. K. Wilson and O. A. Dobre, *Multicarrier Transmission for the Frequency-Selective Channel*, chapter in the book *Transmission of Digital Information*, pp. 49-72, ELSEVIER Academic Press, 2016.
2. E. Bedeer, O. Amin, O. A. Dobre, and M. H. Ahmed, *Energy-Efficient Cognitive Radio Techniques*, chapter in the book *Energy Management of Wired and Wireless Ad-hoc Networks*, pp. 20-40, in print, SPRINGER, 2016.

Refereed Conference Contributions

1. A. Yadav, O. A. Dobre, and N. Ansari, "Distributed energy and resource management for full-duplex dense small cells for 5G," in *Proc. IEEE IWCMC 2017*, Valencia, Spain. *****Best Paper Award*****
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124. O. A. Dobre and D. Budimir, "Modeling of a flat Rayleigh fading mobile radio channel," in *Proc. IEEE Mediterranean Electro-Technical Conference (MELECON) 2000*, Cyprus, pp. 416-419.
125. O. A. Dobre and D. Budimir, "Random number generators for communications," in *Proc. IEEE Int. Conference on Circuits, Systems, Computers and Communications (CSCC) 2000*, Greece, pp. 114-118.
126. M. Minea, I. Badescu, and O. A. Dobre, "Estimation of the disturbing effects of the electric traction on data transmission equipment for high speed trains," in *Proc. IEEE TELSIS 1999*, Serbia, pp. 106-110.

Government Publications

1. O. A. Dobre, "First-order cyclostationarity-based blind recognition of M-FSK signals," Defence R&D Canada, Ottawa, April 2010, CR 2009-295, pp. 1-25.
2. O. A. Dobre and A. PUNCHIHEWA, "Cyclostationarity-based classification of orthogonal frequency division multiplexing and single carrier linear digital modulations," Defence R&D Canada, Ottawa, April 2010, CR 2009-296, pp. 1-27.
3. O. A. Dobre and A. PUNCHIHEWA, "Cyclostationarity-based recognition of orthogonal frequency division multiplexing against single carrier linear digital modulations in time dispersive channel," Defence R&D Canada, Ottawa, April 2010, CR 2009-297, pp. 1-47.
4. O. A. Dobre, "Cyclostationarity-based classification of orthogonal frequency division multiplexing and single carrier linear digital modulations," April 2010, CR 2009-298, pp. 1-43.
5. O. A. Dobre and Q. Zhang, "Second-order cyclostationarity of cyclically prefixed single carrier linear digital modulations with applications to signal recognition," Defence R&D Canada, Ottawa, April 2010, CR 2009-299, pp. 1-44.

Tutorials (at conferences)

1. O. A. Dobre and A. Yadav, Full-duplex Communications for 5G, Tutorial, *IEEE IWCMC*, Valencia, Spain, June 26, 2017.
2. O. A. Dobre, "Blind signal identification for emerging intelligent radio systems: Classical approaches and new trends," half-a-day tutorial at the *IEEE ICC 2014*, Sydney, Australia (*flagship conference of the IEEE Communications Society*).
3. O. A. Dobre, "Blind signal identification for emerging intelligent radio systems," half-a-day tutorial at the *IEEE I2MTC 2014*, Montevideo, Uruguay (*flagship conference of the IEEE Instrumentation and Measurement Society*).
4. O. A. Dobre, "Advanced techniques for spectrum sensing and awareness in cognitive radio," half-a-day tutorial presented at the *IEEE CCECE*, Canada, 2009.

5. O. A Dobre, “Advances in modulation classification techniques,” half-a-day tutorial presented at the *IEEE Sarnoff Symposium*, Princeton, USA, 2008.

Books

1. G. Niculescu and O. A. Dobre, *Electronic Switching*, Technical Publishing Co., Bucharest, Romania, 1993 (in Romanian).
- 3. Non-refereed Contributions** –research/technical reports, public lectures, papers in conference proceedings, etc.

Invited Talks

1. Quo Vadis 5G?, *Plenary Talk, INISCOM*, Ho Chi Minh City, Vietnam, Sept. 2017.
2. Towards 5G communications networks, seminars at Vietnam National University, Le Quy Don Technical University, Duy Tan University, and Post and Telecommunications Institute of Technology, Vietnam, Aug.-Sept. 2017 (*3 talks*).
3. 5G wireless communications: NOMA and Full duplex, Universidad Carlos III de Madrid, June 2017.
4. Big data analysis and optimization of rural and community broadband wireless networks (with Y. Eldemerdash), EION, Feb. 2017.
5. Identification of LTE-UL signal based on graph theory (with Y. Eldemerdash), Allen Vanguard, Feb. 2017.
6. IoT empowered by 5G, Workshop on the 5G Initiative, IEEE Globecom 2016, Dec. 2016.
7. Emerging communications technologies and characterization methods, University of Sannio, Benevento, Italy, Oct. 2016.
8. Towards a new era of communications: Achievements and directions of research, University of Napoli “Parthenope”, Oct. 2016.
9. Identification of GSM, CDMA, and LTE-UL/DL systems (with Y. Eldemerdash), Allen Vanguard, Canada, May 2016.
10. Towards the next generation of underwater communication systems, Statoil, Canada, Feb. 2015.
11. Communications for underground mines: Classical approaches and new trends, University of Saskatoon, Canada, Feb. 2015.
12. Wireless communications: The generations to come, *Plenary Talk, CrownCom*, Cognitive Radio for 5G Networks Workshop, Doha, Qatar, April 2015.
13. Signal identification in MIMO scenarios, KTH, Sweden, March 2015.
14. *2 talks* on Blind classification of STBCs, Laval University and Queens’ University, Canada, Dec. 2014.
15. Research on optical communications—Faster than Nyquist for long-haul optical communications (with Dr. Deyuan Chang), Queens’ University, Canada, Dec. 2014.
16. Signal identification: Classical approaches and new trends, *Plenary Talk, IEEE ComSoc Second Women’s Workshop on Communications and Signal Processing*, Princeton University, July 2014.
17. Cognitive radio research at the Advanced Wireless Communications Laboratory at FEAS: Directions and results, Massachusetts Institute of Technology, USA, Oct. 2013.
18. Blind signal classification and parameter estimation for MIMO systems, STICC-Lab, University of Brest, Telecom Bretagne, ENSTA, France, June 2013.
19. Classification of MIMO-OFDM signals, DRDC Canada, Feb. 2013.
20. Spectrum awareness for cognitive radio systems, *Invited Talk* at the *International Summer School on Distributed Data Acquisition*, held at Polytechnic University of Catalonia, Spain, July 2013.
21. Spectrum sensing and awareness for cognitive radio, Wun CogCom *International Consortium on Cognitive Radio Technology* (<http://www.wun-cogcom.org/>), June 2012.
22. Spectrum awareness: Theory and algorithms, *Plenary Talk, IEEE International RFIC 2012 Workshop*, entitled RF Spectrum Sensing and Signal Feature Detection Circuits, June 2012.
23. Signal cyclostationarity for MIMO system classification, UCLA, USA, Dec. 2012.

24. On signal recognition in MIMO scenarios, DRDC Canada, March 2011.
25. 2 talks on Signal cyclostationarity for OFDM-based signal classification and blind parameter estimation at NJIT and CACI, Dec. 2010.
26. 2 talks on Spectrum sensing for cognitive radio systems at Beijing University of Post and Telecommunications and Jiao Tong University, Shanghai, China, August 2010.
27. Blind modulation classification: a concept whose time has come, Ultra Electronics (TCS) and École de Technologie Supérieure (ETS), Montreal, Canada, May 2009.
28. 2 talks on Cyclostationarity approach to joint signal detection and classification at The Technical Cooperation Program (TTCP), Australia, in May 2009, and University of Omaha, USA, in Feb. 2009.
29. 4 talks in the area of blind signal recognition, being invited by CRC, DRDC, ComSoc/BTS Ottawa Chapter, and Concordia University and ComSoc Montreal Chapter in March 2008.
30. Challenging issues on the physical layer design for cognitive and intelligent radio systems, TenXc Wireless, Ottawa, March 2007.
31. Application of signal cyclostationarity to modulation recognition, MUN, St. John's, Canada, May 2007.
32. Blind modulation classification: an idea whose time has come, Communications Research Centre Canada, Ottawa, Canada, May 2006.
33. On signal identification in intelligent/ cognitive radio systems, TenXc Wireless, Ottawa, Canada, March 2007.
34. Blind modulation classification: An idea whose time has come, Communications Research Centre, Ottawa, Canada, March 2006.
35. Modulation classification in fading channels using antenna arrays, Memorial University of Newfoundland, St. John's, Canada, Nov. 2004.
36. Higher-order cyclic cumulants for linear modulation identification, New Jersey Institute of Technology, USA, Apr. 2004.
37. A unified comparative study of modulation recognition techniques, CACI Technologies Inc., Eatontown, USA, Dec. 2003.
38. OFDM for wireless broadband systems, Illinois Institute of Technology, Chicago, USA, Feb. 2002.
39. Fading channels in mobile communication systems: characterization, modeling and simulation, Drexel University, Philadelphia, USA, Dec. 2001.

Technical Reports

1. S. Johnson and O. A. Dobre, "FPGA implementation of time and frequency synchronization methods for coherent optical OFDM," technical report prepared for ACOA, Canada, Apr. 2017.
2. Y. Eldemerdash and O. A. Dobre, "Signal graph-based standard signal identification," technical report prepared for Allen Vanguard, Canada, Dec. 2016.
3. Y. Eldemerdash and O. A. Dobre, "Identification of GSM, CDMA, and LTE-UL/DL systems," technical report prepared for Allen Vanguard, Canada, Mar. 2016.
4. Y. Eldemerdash and O. A. Dobre, "Spectrum and jamming inter-operability in a time-division multiplexing scheme," technical report prepared for Allen Vanguard, Canada, Feb. 2016.
5. O. A. Dobre et al., "Advancements in faster than Nyquist for long-haul optical communications," technical report prepared for Altera under AIF contract, Canada, Mar. 2016.
6. O. A. Dobre et al., "OFDM vs. Faster than Nyquist in optical communications for OTN," technical report prepared for Altera under AIF contract, Canada, Dec. 2015.
7. O. A. Dobre et al., "Signal processing for OOFDM for OTN: review of existing algorithms," technical report prepared for Altera under AIF contract, Canada, Oct. 2014.
8. Y. Eldemerdash, M. Marey, and O. A. Dobre, "Blind identification of multi-antenna-based OFDM signals based," technical report prepared under contract with DRDC, Canada, March 2014.
9. G. Tsiropoulos and O. A. Dobre, "Efficient spectrum allocation in cognitive radio networks," technical report prepared under contract with CRC, Canada, Feb. 2014.

10. O. A. Dobre, "Cognitive coexistence of non-cooperative heterogeneous wireless systems," technical report prepared under contract with CRC, Canada, March 2013.
11. Y. Eldemerdash and O. A. Dobre, "Blind identification for MIMO-OFDM," technical report prepared under contract with DRDC, Canada, January 2013.
12. Y. Eldemerdash, M. Marey, and O. A. Dobre, "Blind identification and parameter estimation of STBCs," technical report prepared under contract with DRDC, Canada, June 2012.
13. M. Marey and O. A. Dobre, "Blind parameter estimation for STBCs," technical report prepared under contract with DRDC, Canada, March 2012.
14. E. Bedeer and O. A. Dobre, "Link adaptation for OFDM-based cognitive radio systems," technical report prepared under contract with CRC, Canada, Feb. 2012.
15. E. Bedeer and O. A. Dobre, "Coexistence of OFDM-based cognitive radios with existing users," technical report prepared under contract with CRC, Canada, Dec. 2011.
16. Y. Eldemerdash, M. Marey, and O. A. Dobre, "Blind identification of SM and Alamouti STBC using higher-order statistics over Nakagami fading channel," technical report prepared under contract with DRDC, Canada, Nov. 2011.
17. O. A. Dobre et al., "Signal classification techniques based on cyclostationarity," technical report prepared under contract with DRDC, Canada, June 2011.
18. E. Bedeer and O. A. Dobre, "Adaptive transmission techniques for cognitive radio systems," technical report prepared under contract with CRC, Canada, April 2011.
19. O. A. Dobre et al., "Signal classification techniques," technical report prepared under contract with DRDC, Canada, Dec. 2010.
20. O. A. Dobre et al., "Partially overlapping coexistence for dynamic spectrum access in cognitive radio," technical report prepared under contract with CRC, Canada, Dec. 2010.
21. M. Marey and O. A. Dobre, "Algorithm design and evaluation for efficient adaptive spectrum access in heterogeneous environments," technical report prepared under contract with CRC, Canada, Feb. 2010.
22. A. Noel and O. A. Dobre, "Partially overlapping coexistence for emerging cognitive radio systems," technical report prepared under contract with CRC, Canada, June 2009.
23. Q. Zhang and O. A. Dobre, "Advances in the application of cyclostationarity of cyclically prefixed signal carrier linear digital modulations to modulation recognition," technical report prepared under contract with DRDC, Canada, October 2008.
24. O. A. Dobre and Q. Zhang, "On the second-order cyclostationarity of cyclically prefixed signal carrier linear digital modulations with applications to modulation recognition," technical report prepared under contract with DRDC, Canada, February 2008.
25. A. Punchihewa and O. A. Dobre, "On the cyclostationarity of OFDM signals in time dispersive channels with applications to modulation recognition," technical report prepared under contract with DRDC, Canada, July 2007.
26. O. A. Dobre and A. Punchihewa, "Nth-order cyclostationarity of OFDM signals in AWGN channel, with applications to modulation recognition," technical report prepared under contract with DRDC, Canada, March 2007.
27. O. A. Dobre, "Automatic signal exploitation and recognition (Part II)," technical report prepared under contract with DRDC, Canada, Dec. 2006.
28. O. A. Dobre, "Automatic signal exploitation and recognition (Part I)," technical report prepared under contract with DRDC, Canada, Aug. 2006.
29. O. A. Dobre, A. Abdi, and Y. Bar-Ness, "Likelihood-based methods for modulation classification and new classification problems due to emerging communications technologies," technical report prepared under contract with the US Army CECOM, Dec. 2004.
30. O. A. Dobre, A. Abdi and Y. Bar-Ness, "Cyclic cumulant and average likelihood ratio test classifiers with multiple antenna diversity with applications to a specific pool of modulations," technical report prepared under contract with the US Army CECOM, Oct. 2004.

31. O. A. Dobre, A. Abdi, and Y. Bar-Ness, "Modulation classification in fading channels, using antenna arrays," technical report prepared under contract with the US Army CECOM, Mar. 2004.
32. O. A. Dobre, A. Abdi, and Y. Bar-Ness, "Comparative study of modulation recognition techniques," technical report prepared under contract with the US Army CECOM, Feb. 2004.
33. O. A. Dobre and Y. Bar-Ness, "Higher-order cyclic cumulants for linear modulation classification," technical report prepared under contract with the US Army CECOM, Feb. 2003.
34. O. A. Dobre, "Increased efficiency OFDM wireless communications," technical report prepared for the Fulbright Academy, Mcar. 2001.
35. T. Oprea, O. A. Dobre, C. M. Alexandrescu, "Development of a radio communication system," technical report prepared for the National Railway Company, Bucharest, Romania, 2000.

Non-Refereed Conference Contributions

1. M. Marey, H. Mostafa, and O. A. Dobre, Interference-free alternate-relaying cooperative systems with real modulations, in *Proc. (CD) IEEE NECEC 2016*, Canada.
2. A. Al-Bermani, O. A. Dobre, R. Venkatesan, and C. Li, "Modified OFDM signal structure to mitigate the phase noise effect in long-haul CO-OFDM systems," in *Proc. IEEE NECEC, 2015*, Canada.
3. S. Kumar, O. Omomukuyo, K. S. Wilson, O. A. Dobre, and R. Venkatesan, "The impact of the non-linearity finite excinction ratio of the MZM on the performance of CO-OFDM," in *Proc. IEEE NECEC, 2015*, Canada.
4. J. Zhu, O. Omomukuyo, R. Venkatesan, C. Li, and O. Dobre, "RF-pilot phase noise compensation for long-haul coherent optical OFDM systems," in *Proc. IEEE NECEC, 2014*, Canada
5. S. Kafaie, Y. Chen, M. H. Ahmed, O. A. Dobre, "Network coding implementation details: A guidance document," in *Proc. IEEE NECEC, 2013*, Canada.
6. T. Rasheed, Y. P. Chen, O. A. Dobre, and M. Ahmed, "Medium Access Control in Wireless Sensor Networks: Contemporary Design Issues and Future Research Directions," in *Proc. IEEE NECEC, 2010*, Canada.
7. T. Rasheed, O. A. Dobre, and M. Ahmed, "Relay selection schemes for cooperative communication and network coding: A survey," in *Proc. IEEE NECEC, 2010*, Canada.
8. T. Rasheed, O. A. Dobre, and M. Ahmed, "Cooperative communication for cognitive radio networks," in *Proc. IEEE NECEC, 2010*, Canada.
9. R. Almatarneh, O. A. Dobre, M. Ahmed, "Dynamic resource allocation in multi-user OFDM systems," in *Proc. IEEE NECEC, 2008*, Canada.
10. A. Al-Habashna, O. A. Dobre, R. Venkatesan, "Cognitive radio: A new paradigm in wireless communications," in *Proc. IEEE NECEC, 2008*, Canada.
11. E. Jayatunga, O. A. Dobre, S. Rajan, and R. Inkol, "A survey of classification techniques for QAM signals," in *Proc. IEEE NECEC, 2008*, Canada.
12. Q. Zhang, O. A. Dobre, S. Rajan, and R. Inkol, "On signal cyclostationarity for modulation classification," in *Proc. IEEE NECEC, 2008*, Canada*** **Best GOLD Paper Award*****
13. J. Wells, O. A. Dobre, and G. W. K. Colman, "Correlation dependent LMS for fading channel tracking," in *Proc. IEEE NECEC, 2007*, Canada.
14. S. Lu and O. A. Dobre, "Blind modulation recognition for adaptive orthogonal frequency division multiplexing systems," in *Proc. IEEE NECEC, 2007*, Canada.
15. A. Punchihewa and O. A. Dobre, "Cognitive radio: an emerging wireless technology," in *Proc. IEEE NECEC 2006*, Canada.
16. U. Khan and O. A. Dobre, "A binary decision tree algorithm for robust modulation classification," in *Proc. IEEE NECEC 2006*, Canada.

Journal Editorials

1. “Cognitive radio: The road for its second decade, editorial,” Elsevier PHYCOM, vol. 9, pp. 145-147, 2013.
2. “Emerging applications, services, and engineering for cellular cognitive systems: part I”, IEEE Communications Magazine, vol. 53, no. 5, pp. 32-34, 2015.
3. “Emerging applications, services, and engineering for cellular cognitive systems: part II”, IEEE Communications Magazine, vol. 53, no. 7, pp. 66-68, 2015.
4. “Reviewers and Editors Appreciation 2016,” IEEE Communications Letters, vol. 21, no. 1, p. 1, Jan. 2017.

Magazine Articles (Non-technical):

1. S. Bregni and O. A. Dobre, “WICE: Promoting the Role of Women in Communications Engineering Interview with Octavia Dobre, Chair of WICE Standing Committee,” *IEEE Global Communications Newsletter* as part of the *IEEE Communications Magazine*, Apr. 2017.
2. O. A. Dobre, A. Garcia-Armada, and J. Armstrong, “IEEE ComSoc Third Women’s Workshop on Communications and Signal Processing: Already a Tradition,” in *IEEE Global Communications Newsletter* as part of the *IEEE Communications Magazine*, Jan. 2017.
3. O. A. Dobre, “A Welcome Message from the New Editor-in-Chief”, *IEEE Communications Letters* (vol. 20, no. 1), Jan. 2016.
4. S. Bregni and O. A. Dobre, “WICE: Promoting the Role of Women in Communications Engineering Interview with Octavia Dobre, Chair of WICE Standing Committee,” *IEEE Global Communications Newsletter* as part of the *IEEE Communications Magazine*, Apr. 2015.
5. O. A. Dobre and S. Kishoree, “IEEE ComSoc Second Women’s Workshop on Communications and Signal Processing: Already a Tradition,” *IEEE Global Communications Newsletter* as part of the *IEEE Communications Magazine*, Sep. 2014.

Submitted Publications**Refereed Journal Contributions**

1. T. Duong, T. Hoang, O. A. Dobre, and V. Poor, “Downlink beamforming for energy-efficient heterogeneous networks with massive MIMO and small cells,” submitted to *IEEE Transactions on Wireless Communications*, April 2017.
2. M. Mohammadkarimi, E. Karimi, O. A. Dobre, and M. Win, “Non-data Aided Doppler spread estimation algorithm for MIMO communication systems,” submitted to *IEEE Transactions on Wireless Communications*, Feb. 2017.
3. R. S. M. Islam, M. Zeng, O. A. Dobre, and K. Kwak, “Resource allocation for downlink NOMA systems: Key techniques and open issues,” submitted to *IEEE Wireless Communications*, March 2017.
4. C. Kundu, S. Ghose, T. M. N. Ngatched, O.A. Dobre T. Q. Duong, and R. Bose, “Effects of CSI knowledge on secrecy of threshold-selection decode-and-forward relaying,” submitted to *IEEE JSAC Special Issue of PHY Security for 5G*, Feb. 2017.
5. A. Dubey, C. Kundu, T. M. N. Ngatched, O. A. Dobre, and R. K. Mallik, “Incremental relaying for power-line communication: Performance analysis and power allocation,” submitted to *IEEE Transactions on Smart Grid*, April 2017.
6. S. Kafaie, Y. Chen, O. A Dobre, M. H. Ahmed, “Joint inter-flow network coding and opportunistic routing in multi-hop wireless mesh networks: A comprehensive survey,” submitted to *IEEE Communications Surveys and Tutorials*, 2017.

EDITORIAL WORK, CHAIRING TECHNICAL CONFERENCES, STEERING AND ADVISORY BOARDS

Editorial work	Editor-in-Chief (EiC); Senior Editor, Editor, Guest Editor (12)
Chair, Technical Conferences	General (1); Technical Symposia/Tracks (14); Technical Workshops (2); Tutorials (1)
Steering Committees and Advisory Boards of Journals and Conferences	Steering Committees (2); Advisory Boards (2)

Editorial Work

- *Editor-in-Chief (EiC), IEEE Communications Letters* journal, 2016-present
<http://www.comsoc.org/cl/editorial-board>
- *Editor* for the *IEEE Communications Surveys and Tutorials* (2012-present)
- *Guest Editor, IEEE Access*, Modelling, Analysis, and Design of 5G Ultra-Dense Networks, 2017-2018.
- *Guest Editor, IEEE Internet of Things Journal*, 5G and Beyond - Mobile Technologies and Applications for IoT, 2017.
- *Guest Editor, IEEE Wireless Communications Magazine*, Green and Sustainable Networking and Computing Special Issue, 2017.
- *Senior Editor* for the *IEEE Communications Letters* journal, responsible for the area of Signal Processing for Communications (2013-2015)
- *Editor* for the *IEEE Transactions on Wireless Communications* (2014-2015)
- *Guest Editor* for the *IEEE Communications Magazine*—Emerging Applications, Services and Engineering for Cellular Cognitive Systems (EASE4CCS) Special Issue, 2014-2015
<http://www.comsoc.org/files/Publications/Magazines/ci/cfp/cfpcommag0515a.html>
- *Editor* for *ELSEVIER PHYCOM* (2012-present)
- *Editor* for the *IEEE Communications Letters* (2009-2013)
- *Lead Guest Editor* for *ELSEVIER PHYCOM*, Cognitive Radio: The Road for its Second Decade (2012)—<http://www.journals.elsevier.com/physical-communication/news/special-issue-cognitive-radio-the-road-for-its-second-decade/>—Editorial available at <http://www.sciencedirect.com/science/article/pii/S1874490713000566>
- *Guest Editor* for the *IEEE Journal of Selected Topics in Signal Processing*—Robust Measures and Tests Using Sparse Data for Detection and Estimation Special Issue (2011).

Chairing Technical Conferences

- *Technical Co-Chair*, Recent Results Track, IEEE VT Spring 2018, Porto, Portugal.
- *Technical Co-Chair*, Workshop on Emerging Non-Orthogonal Multiple Access Techniques for 5G, IEEE Globecom 2017, Singapore.
- *Tutorial Chair*, IEEE I2MTC 2017, Torino, Italy.
- *Technical Co-Chair* of the Cognitive Radio and Spectrum Management, VTC Fall 2016, Montreal, Canada.
- *Technical Co-Chair* of the Cognitive Radio and Spectrum Management, VTC Spring 2016, Nanjing, China.
- *Technical Co-Chair* of the Workshop on Wireless Powered Communication Networks: From Theory to Practice, IEEE WCNC 2016, Doha, Qatar.
- *General Chair*, *IEEE Canadian Workshop on Information Theory* (CWIT) 2015—the first time to be organized in St. John's, Newfoundland. <http://cwit.ca/2015/>

- *Technical Co-Chair* of the Communications Theory Symposium, *IEEE Globecom* 2015 (flagship conference of the IEEE Communications Society), San Diego, USA.
- *Technical Co-Chair* of the Emerging Applications for Cognitive Radio Track, *IEEE CrownCom* 2015, Doha, Qatar.
- *Technical Co-Chair* of the PHY and Fundamentals Track, *IEEE WCNC* 2015, New Orleans, USA.
- *Technical Co-Chair* of the Cognitive Radio and Spectrum Sensing Track, *IEEE VTC Fall* 2014 (flagship conference of the IEEE Vehicular Technology Society), Vancouver, Canada.
- *Technical Co-Chair* of the Signal Processing for Communications Symposium, *IEEE Globecom* 2013 (flagship conference of the IEEE Communications Society), Atlanta, USA.
- *Technical Co-Chair* of the Signal Processing for Communications Symposium, *IEEE ICC* 2013 (flagship conference of the IEEE Communications Society), Budapest, Hungary.
- *Technical Co-Chair* of the Multiple Antenna Systems and Space-Time-Frequency Processing Track, *IEEE VTC Fall* 2013 (flagship conference of the IEEE Vehicular Technology Society), Germany.
- *Technical Co-Chair* of the Signal Processing for Communications Symposium, *IEEE ICNC* 2012, USA.
- *Technical Co-Chair* of the *IEEE NECEC* 2010 Conference, Canada.
- *Technical Co-Chair* of the Signal Processing and Multimedia Symposium, *IEEE CCECE* 2009, Canada.

Steering Committees

- *Steering Committee, Member, IEEE Networking Letters* journal (2017-present)
- IEEE Workshop on SUB-6 GHz Spectrum For 5G Progress (SUPeR5G), IEEE Globecom, Singapore, 2017.
- IEEE Workshop on Emerging Energy Harvesting Solutions for 5G Networks (5GEH), IEEE ICC, Paris, 2017.
- International Conferences on Signal Processing and Communication Systems (ICSPCS) 2017, Australia.
- International Wireless Communications & Mobile Computing Conference, Workshop: Recent Advances at Physical Layer for 5G Wireless Networks, 2015, Croatia.

Advisory Boards

- IEEE Journal on Selected Areas on Communications, Advisory Ad-Hoc Committee, 2017.
- International Conferences on Signal Processing and Communication Systems, 2015 and 2016, Australia.

RESEARCH FUNDING (GRANTS & CONTRACTS)

- Secured +7M research funding.

	Title and Research Program/Project	Years held
<i>Support currently held</i>		
Lesley James, Faisal Khan, Octavia A. Dobre and 6 others	Integrated Approach to Digital Oilfield Education, Petroleum Research NL	2017-2020
Octavia A. Dobre	Advanced Research on Subsea Communications, Memorial University Research Chair	2017-2021
A. Nayak (PI) and Octavia A. Dobre	Big Data Analysis and Optimization of Rural and Community Broadband Wireless Networks, NSERC Collaborative Research and Development Grants, with EION as industry partner	2017-2019
Octavia A. Dobre (PI)	Signal Identification in Congested RF Spectrum, NSERC Collaborative Research and Development Grants, with Allen Vanguard as industry partner	2017-2019
Octavia A. Dobre (PI)	Towards improvement of the broadband service for rural communities NSERC, Engage— Industry partner: EION Inc.	2016-2017
Octavia A. Dobre (PI) and Telex Ngatched	Physical Layer Security for the New Generation (5G) Wireless Networks MUN, Seed, Bridge, and Multidisciplinary Fund	2016-2018
Telex Ngatched (PI) and Octavia A. Dobre	Millimeter Wave Backhaul-Aware User Association and Mobility Management for Next Generation (5G) Heterogeneous Networks, MUN, Seed, Bridge, and Multidisciplinary Fund	2017-2019
O. A. Dobre (PI), R. Venkatesan, T. Ngatched, C. Li, P. Gillard (co-PIs)	OmOptics: Orthogonal Frequency Division Multiplexing Technology Development for Terabit Optical Transport Networks Altera Corporation, ACOA-Atlantic Innovation Fund (AIF), and RDC NL-Leverage Program	2013-2017
O. A. Dobre (PI)	Cognitive Coexistence of Non-cooperative Heterogeneous Wireless Systems NSERC, Discovery	2013-2018

M. H. Ahmed (PI) and O. A. Dobre (co-PI)	CFI Infrastructure Operating Fund (IOF) – for the operation of the infrastructure available through the CFI/ RDC grants	2012-2013 2014-2015 2015-2016
<i>Applied for</i>		
Octavia A. Dobre (co-PI)	FRFC New Collaborations Research program, with CNRS – CentraleSupélec – Univ. Paris-Sud of Université Paris-Saclay	2018-2020
<i>Previous support (at MUN, since 2005)</i>		
Octavia A. Dobre (PI)	Cellular Network Identification and Parameter Extraction Techniques NSERC, Engage Plus— Industry partner: Allen Vanguard	2016-2017
Octavia A. Dobre (PI)	Interoperability Requirements and Limitations on Intelligence and Electronic Warfare Platforms NSERC, Engage— Industry partner: Allen Vanguard	2015-2016
Octavia A. Dobre (PI)	Optical Wireless Underwater Communications: New Technology for Distance Increase NSERC, Engage— Industry partner: Agile Technologies Inc.; Equipment: Harris Co.	2015-2016
O. A. Dobre (PI)	Canadian Workshop on Information Theory ACOA-Business development program	2015
O. A. Dobre (PI)	Industry-Academia Panel: The Roadmap to Open Innovation NSERC, Connect	2015
Octavia A. Dobre (PI)	Development of Signal Classification Toolbox for Wireless Signal Intelligence Platform NSERC, Engage—Industry partner: ThinkRF	2013-2014
O. A. Dobre (PI)	Spectrum Access in Heterogeneous Environments Communications Research Centre, Canada	2013-2014
O. A. Dobre (PI), Y. Zhang, R. Venkatesan and C. Li	Advancing MIMO-OFDM Underwater Acoustic Communications Using Compressed Sensing and Coding, RDC OSRA	2012-2017
O. A. Dobre (PI)	Signal Classification Techniques Defence Research and Development Canada (DRDC)	2012-2013 2010-2012
O. A. Dobre (PI)	Blind Signal Recognition for Emerging Wireless Communications NSERC, Discovery	2007-2013

M. H. Ahmed (PI) and O. A. Dobre (co-PI)	Remote Fall Detection for Seniors NL-HARP	2013-2014
R. Venkatesan (PI), O. A. Dobre, M. Ahmed, H. Heys, and C. Li (co-PIs)	Bell/ Consilient Wireless Communications and Mobile Computing Research Centre Aliant/Bell, Consilient, and ACOA	2009 2010 2011
M. H. Ahmed (PI) and O. A. Dobre (co-PI)	Advanced Wireless Communication Research Laboratory CFI, Leader Opportunity Fund (LOF)	2008-2012
M. H. Ahmed (PI) and O. A. Dobre (co-PI)	Advanced Wireless Communication Research Laboratory* In-kind contribution from Keithley, Agilent, and DTA Systems	2008-2012
O. A. Dobre (PI) and M. H. Ahmed (co-PI)	Advanced Wireless Communication Research Laboratory* CFI-RDC, NL	2008-2012
O. A. Dobre (PI)	Algorithm Design and Evaluation for Efficient, Adaptive Spectrum Access in Heterogeneous Environments CRC, Canada	2009-2012
S.-H. Hwang (PI) and O. A. Dobre (co-PI)	Optimization of Adaptive Spectrum Sensing Performance in Cognitive Radio System Korea Science and Engineering Foundation (KOSEF)**	2009-2011
O. A. Dobre (PI)	Spectrum Sensing and Awareness for Cognitive and Intelligent Radios: Algorithm Design, FPGA Implementation, and Product Integration and Testing MITACS Accelerate	2009-2010
O. A. Dobre (PI)	Coexistence Problems in Cognitive Radio Systems Communications Research Centre, Canada	2009
O. A. Dobre (PI)	Application of Cyclostationarity to OFDM Signal Recognition DRDC, Canada	2007-2008
O. A. Dobre (PI)	Automatic Signal Exploitation and Recognition DRDC, Canada	2006-2007
O. A. Dobre (PI)	Student Support in Research Program Start-Up Grant, MUN	2005-2008
<i>Previous support (before joining MUN)</i>		
Y. Bar-Ness (PI) and O. A. Dobre	Blind Modulation Classification Algorithms for Linear Digital Modulations RDECOM, USA- Research contract	2003-2005

T. Oprea (PI), O. A. Dobre, and another co-PI	Development of a Radio Communication System for the National Railway Company National Railway Company Romania- Research contract	2000-2001
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* Note that for this grant, the two researchers used the equipment for their individual and common research activities.

** Note that the KOSEF funding was for the support of two students at Dongguk University, and the travel of the collaborators to visit each other's groups. There was an MoU between KOSEF and NSERC, according to which I was eligible to apply for this funding together with a Korean professor.

HIGHLY QUALIFIED PERSONNEL (HQP)

	Undergraduate (project course)	Master's (MEng, MASCE)	Doctoral (PhD)	Postdoctoral (PDF) or research Associate (RA)	Engineer	Total
Currently supervised/ co-supervised		1	6	7	1	15
Supervised/ co-supervised	19	18	12	10	2	61
						76

The HQP that I trained either obtained positions in academia and industry, or continued their graduate studies; details on their current positions are provided in the table below.

Awards of Supervised Students

- M. Mohammadkarimi, Visiting Ph.D. student, *Massachusetts Institute of Technology*, 2016-2017.
- S. Kafaie, Travel Grant Award, *IEEE Globecom 2016*, Washington DC, USA, 2016.
- Y. Eldemerdash: *IEEE Communications Letters* journal, Reviewer's Appreciation Certificate, Dec. 2016.
- S. Kumar, The Hira & Kamal Ahuja International Graduate Fellowship, Memorial University, June 2015.
- S. Kafaie, Emera Graduate Scholarship, WISE Newfoundland, 2015.
- S. Kafaie, Outstanding TA Award, Faculty of Engineering and Applied Science, Memorial University, May 2015.
- Mostafa Mohammadkarimi, *IEEE Communications Letters* journal, Reviewer's Appreciation Certificate, Dec. 2014.
- E. Bedeer, Outstanding TA Award, Faculty of Engineering and Applied Science, Memorial University, May 2013.
- Y. Zhang, Research Development Corporation Ocean Industries Student Research Award, April 2012.
- Q. Zhang, David Dunsiger Award for best graduate thesis, Faculty of Engineering and Applied Science, Memorial University, March 2011.
- A. Noel, "Partially overlapping coexistence for emerging cognitive radio systems," 1st Prize in the Best Presentation Competition, MUN, 2009,
- Q. Zhang, O. A. Dobre, S. Rajan, and R. Inkol, "On signal cyclostationarity for modulation classification," IEEE Best GOLD Paper Award, *IEEE NECEC*, 2008, Canada.
- *All* graduate students under my supervision obtained the *Fellow of the School of Graduate* award at the completion of their studies. Ebrahim Bedeer, Yahia Eldemerdash, Somayeh Kafaie and Mostafa Mohammadkarimi passed their Ph.D. defences *With Distinction*.

Name	Type of HQP Training and Status	Years' Supervised or Co-supervised	Title of Project or Thesis	Present Position
Ahmed Mohamed Ali Ibtahim	Postdoctoral	Co-supervised 2016-present	D2D communications for 5G	Postdoctoral fellow, MUN
Stanley Johnson	Postdoctoral	Supervised 2016-present	High speed optical communications for OTN	Postdoctoral fellow, MUN
Animesh Yadav	Postdoctoral	Supervised 2016-present	Full duplex in small cells for 5G systems	Postdoctoral fellow, MUN
Abdelkerim Amari	Postdoctoral	Co-supervised 2015-present	Non-linearity compensation in optical fibers	Postdoctoral fellow, MUN
Yahia Eldemerdash	Postdoctoral	Supervised 2015-present	Interoperability in EW radio platforms	Postdoctoral fellow, MUN
Shu Zhang	Postdoctoral	Supervised 2015-2017	Faster than Nyquist for optical communications	Postdoctoral fellow, MUN
Oluyemi Omomukuyo	Postdoctoral	Co-supervised 2014-2017	Signal processing for optical OFDM in OTN	Postdoctoral fellow, MUN
Deyuan Chan	Postdoctoral	Co-supervised 2014-2016	FEC for optical OFDM in OTN	Research engineer, Infinera, Canada
Chinmoy Kundu	Postdoctoral	Co-supervised 2015-2016	Physical layer security	UK Royal Society scholar (Newton Fellowship), Queen's University Belfast, UK
Ali Al-Bermani	Postdoctoral	Co-supervised 2015-2016	Signal processing for OTN	Research Associate, Universitat Paderborn, Germany
Mohammad Arifuzzaman	Postdoctoral	Co-supervised 2015-2015	Wireless sensor networks	Assistant Professor, IBAIS University, Bangladesh
Ali Afana	Postdoctoral	Co-supervised 2014-2015	Spatial modulation for 5G wireless systems	Research Associate, Lakehead University, Canada
Hala Mostafa	Postdoctoral	Supervised 2015-2015	Signal processing for source enumeration	Assistant Professor, Menoufyia University, Egypt
Mohamed Marey	Postdoctoral	Supervised 2010-2012, 2013-2014	Cognitive and intelligent radio systems	Associate Professor and ECE Chair, Prince Sultan University, SA
Ebrahim Karami	Postdoctoral	Supervised 2012-2014	Identification of cellular systems	Research Associate, MUN
Osama Amin	Postdoctoral	Co-supervised 2013-2014	Resource allocation in cognitive radio systems	Research Associate, KAUST, Saudi Arabia
Georgios Tsiropoulos	Postdoctoral	Co-supervised 2013-2014	Cognitive coexistence of non-cooperative	Research Associate, National Technical

			heterogeneous wireless systems	University of Athens, Greece
Peter Moloney	Engineer	2010-2011	Intelligent communications (experimental developments)	Consultant, NL Canada
Lori Hogan	Project manager	2014-2016	Optical communications for OTN	Instructor, Engineering, MUN
Suchita Yadav	Project manager	Supervised 2016-present	Optical communications for OTN	Project manager. OmOptic AIF project, MUN
Esraa Makled	Doctoral	Supervised 2017-present	Emerging technologies for underwater communications	PhD student, MUN
Muhammad Ahmad Reza	Doctoral	Supervised 2017-present	IoT for underwater communications (IoUT)	PhD student, MUN
Ming Zhen	Doctoral	Supervised 2016-present	Resource management in 5G networks	PhD student, MUN
Mostafa Mohammadkarami	Doctoral	Supervised 2013-2017	MIMO cognitive radio systems	Defended his PhD thesis, MUN
Lin Xiang	Doctoral	Co-supervised 2014-present	FPGA implementation for OOFDM for OTN	PhD student, MUN
Sunish Kumar	Doctoral	Co-supervised 2014-present	Signal processing for OOFDM for OTN	PhD student, MUN
Somayeh Kafaie	Doctoral	Co-supervised 2013-2017	Resource allocations in cognitive radio	Postdoctoral fellow, MUN
Yi Zhang	Doctoral	Co-supervised 2012-2017	Physical layer issues in underwater communications	PhD student, MUN
Tina Yaacoub	Doctoral (<i>Visiting student</i>)	Co-supervised 2016-2017	Application of the finite rate of innovation signal processing to communications	PhD student, UBO, France
Yahia Eldemerdash	Doctoral	Supervised 2011-2015	Spectrum awareness for cognitive radio systems	Postdoctoral fellow, MUN
Nhat-Quang Nhan	Doctoral (<i>Visiting student</i>)	Co-supervised 2014-2015	Non-binary LDPCs for emerging wireless communications	Postdoc, Univ. of Rennes, France
Michael Muhlhaus	Doctoral (<i>Visiting student</i>)	Co-supervised 2011-2014	Modulation classification in MIMO scenarios	Engineer, TRUMPF, Germany
Ebrahim Bedeer	Doctoral	Co-supervised 2010-2014	Resource allocation in wireless systems	Assistant Professor, Ulster University, UK

Hala Mostafa	Doctoral	Co-supervised 2009-2014	Cooperative wireless communications	Lecturer, Menoufyia University, Egypt
Shiny Abraham	Doctoral	Co-supervised 2010-2011	Performance optimization with operating constraints	Assistant Professor, Tuskegee University, AL, USA
Deepak Joshi	Doctoral	Co-supervised 2009-2011	Spectrum adaptation in CR systems with operating constraints	Wireless project manager, CETECOM, USA
Yi Zhou	Doctoral	Co-supervised 2009-2011	Feature-based spectrum sensing for cognitive radio	Research engineer, Conoco Phillips, Houston, USA
Hong Li	Doctoral	Co-supervised 2005-2005	Likelihood-based methods for modulation classification	Research engineer, Aware Inc., Bedford, MA, USA
Ranning Wang	Master's	Supervised 2016-present	Full duplex underwater communications	Master's student, MUN, Canada
Ali Esswie	Master's	Co-supervised 2016-2017	Interference alignment in wireless networks	PhD student, Nokia Bell/ Aalborg University, Denmark
Jingwen Zhu	Master's	Co-supervised 2012-2015	Phase noise in OOFDM communications for OTN	Engineer, Minotaur Creative, PEI, Canada
Clet Boudéhenn	Master's (<i>Visiting</i>)	Co-supervised 2017	Video transmission in heterogeneous networks	Master's student, UBO, France
Maxence Lannuzel	Master's (<i>Visiting</i>)	Co-supervised 2017	D2D video transmission	Master's student, UBO, France
Walid Jerjawi	Master's	Supervised 2012-2014	Detection of SC-FDMA LTE signals	Engineer, Canada
Talha Rasheed	Master's	Co-supervised 2009-2012	Cooperative wireless network coding	Software engineer, Ross Video, Canada
Hongfei Wang	Master's	Co-supervised 2009-2012	Blind parameter estimation for FSK and CP-FSK signals	PhD student, Queens University, Canada
Yunxiang Xue	Master's	Supervised 2012-2013	Pilot-based signal detection in cognitive radio	Engineer, Kiwinano Tech, Ontario, Canada
Yichen Wang	Master's	Supervised 2011-2012	SM and AL STBC identification	Software engineer, Suon College, Canada
Na Luo	Master's	Supervised 2012-2013	Fourth-order statistic based signal classification	Unknown
Peter Vandrish	Master's	Co-supervised 2009-2011	Navigation system for autonomous underwater vehicles	Engineer, DragonWave, Ottawa
Jun-Ho Baek	Master's	Co-supervised 2010-2010	Energy detection for cognitive radio systems	Mobile commun. engineer,

				LG, South Korea
Alaa Al-Habashna	Master's	Co-supervised 2007-2010	Physical layer design for cognitive radio systems	PhD student, Carleton University, Canada
Qiyun Zhang	Master's	Supervised 2007-2011	CP-SCLD signal identification and parameter estimation	Researcher, Chinese Academy of Sciences, China
Anjana Punchihewa	Master's	Supervised 2005-2007	Application of cyclostationarity to OFDM signal recognition	Design engineer, TELUS Communications, Canada
Shiliang Lu	Master's	Supervised 2006-2007	Adaptive OFDM in software define radio	Software engineer, Unisys, Canada
Xiaobin Yu	Master's	Supervised 2006-2007	Adaptive loading in OFDM-MIMO systems	Engineer, Research in Motion, Canada
Fahed Hameed	Master's	Supervised 2006-2007	On the maximum likelihood for modulation classification	Telecom engineer, Kahramaa, Qatar
Jeff Rose	Undergraduate	Co-supervised 2012-2013	Cooperative spectrum sensing (group project)	Engineer, G. J. Cahill & Co. Ltd., Canada
Andrew Nofall	Undergraduate	Co-supervised 2012-2013	Cooperative spectrum sensing (group project)	Software Engineer, Lockheed Martin, Canada
Peyman Mahmoudifar	Undergraduate	Co-supervised 2012-2013	Cooperative spectrum sensing (group project)	Bell Alliant, Ontario, Canada
Maximillian Deutsch	Undergraduate	Co-supervised 2012-2013	Cooperative spectrum sensing (group project)	Alcatel Lucent, Ottawa, Canada
Stephen Wiseman	Undergraduate	Co-supervised 2012-2013	Cooperative spectrum sensing (group project)	Alcatel Lucent, Ottawa, Canada
Andrew Giebfried	Undergraduate	Supervised 2011-2012	Experimental study of spectrum sensing (group project)	Master's student, Technical Univ. of Munich, Germany
Chris Newport	Undergraduate	Supervised 2011-2012	Experimental study of spectrum sensing (group project)	Engineer, Alcatel- Lucent, Canada
Miao Guo	Undergraduate	Co-supervised 2009-2010	Indoor wireless cooperative communications system (group project)	Software engineer, NL Research Technologies, Canada
Bing Han	Undergraduate	Co-supervised 2009-2010	Indoor wireless cooperative communications system (group project)	Engineer, Bell Canada
Jian Ma	Undergraduate	Co-supervised 2009-2010	Indoor wireless cooperative	System test engineer, Alcatel-Lucent,

			communications system (group project)	Canada
Pu Wang	Undergraduate	Co-supervised 2009-2010	Indoor wireless cooperative communications system (group project)	Engineer, Alcatel-Lucent, Canada
Angela Palmera	Undergraduate	Co-supervised 2009-2010	Design of a MIMO system (group project)	Electrical engineer, Maritime Electric, Canada
Amy Pike	Undergraduate	Co-supervised 2009-2010	Design of a MIMO system (group project)	Design engineer, Altera Inc., Canada
Adam Wong	Undergraduate	Co-supervised 2009-2010	Design of a MIMO system (group project)	Engineer, Maritime Electric, Canada
Adam Noel	Undergraduate	Co-supervised 2008-2009	User coexistence for emerging cognitive radio systems	PhD student, University of British Columbia, Canada
David Winsor	Undergraduate	Supervised 2008-2009	Biomedical applications of signal cyclostationarity	Instrumentation engineer, Wood Group PSN, Canada
Jeff Wells	Undergraduate	Supervised 2005-2006	Adaptive array algorithms for tracking time varying channels	Student, Medical School, MUN
Billy Barron	Undergraduate	Supervised 2005-2006	Autonomous radio for wireless communications	Engineer, Ontario Power Generation, Canada
Uzma Khan	Undergraduate	Supervised 2005-2006	On the FSK signal recognition for intelligent receivers	Test automation developer, RIM, Canada

OTHER CONTRIBUTIONS

Patents:

- Y. Eldemerdash, O. A. Dobre, O. Ureten, and T. Yensen, System and method for modulation classification using signal graphs, US Patent Application No. 62/526,561, Filing date: 30 June 2017.
- Y. Eldemerdash, O. A. Dobre, O. Ureten and T. Yensen, "System and Method for Cellular Network Identification," US Patent Application No. 15/687,370, Filing date: 25 August 2017.

Disclosures:

- *Method and system for cellular network identification, Memorial University-Allen Vanguard, July 2016.*
- *Method and system for coherent optical OFDM synchronization using polarization-time coding, Memorial University-Altera, Jan. 2016.*
- *Channel estimation algorithm enabled by Tomlinson-Harashima precoding for implementation in coherent optical systems, Memorial University-Altera, Nov. 2015.*

Invited Panelist:

- Research, Innovation and Commercialization—Opportunities and Challenges, *IEEE Globecom* 2017, Singapore, Dec. 2017.
- Advances in Communications Technologies, *IEEE Globecom* 2016, Washington DC, Dec. 2016.
- Young Professionals Publication Panel, *IEEE VTC Fall* 2016.
- Vision and Key Technologies for 5G Networks Panel, *CrownCom*, April 2015.
- *NSERC Discovery Grant Program*, ECE committee, Canada, 2013-2015.
- *National Science Foundation* (NSF), Washington DC, USA, August 2013.
- *National Science Foundation* (NSF), Washington DC, USA, April 2012.
- *IEEE Women in Instrumentation and Measurements* (WIM), IEEE I2MTC 2014, Montevideo, Uruguay.
- *IEEE Women in Engineering* (WIE), IEEE ICC 2012, Ottawa, Canada.

Media Interview: at the *IEEE ComSoc Second Women's Workshop on Communications and Signal Processing*, Princeton University, July 2014 (<http://youtu.be/Z5OK84o3Pq4>, <http://beats.comsoc.org/>, <https://www.facebook.com/IEEEComSoc/>).

Member of Executive Technical and Non-technical Committees:

- Chair, Awards Selection Committee, *IEEE Women in Communications Engineering*, *IEEE ComSoc* (July 2017-Dec. 2017)
- Chair, Awards Selection Committee, *IEEE Signal Processing for Communications and Electronics (SPCE) Technical Committee*, *IEEE ComSoc* (July 2017-Dec. 2017)
- Member-at-Large (MaL), *Administrative Committee*, *IEEE Instrumentation and Measurement Society*, 2016-2018.
- Member, Awards Selection Committee, *Technical Committee of Cognitive Networks (TCCN)*, *IEEE ComSoc* June 2017-Dec. 2017.
- Vice-Chair North America, *TCCN*, *IEEE ComSoc* (2015-2016),
- Co-Chair, *SPCE Technical Committee*, *IEEE ComSoc* (2015-2016),
- Co-Chair, *Wireless and Telecommunications in Measurements Technical Committee*, *IEEE Instrumentations and Measurement Society* (2013-present),
- Member, *Nomination and Election Committee*, *IEEE ComSoc Radio Communications Technical Committee*, 2016,
- Member, *Election Committee*, *TCCN*, *IEEE ComSoc*, 2016,
- Member, *Election Committee*, *Communication Theory Technical Committee*, *IEEE ComSoc*, 2016,
- Chair, *IEEE ComSoc Women in Communications Engineering (WICE)*, 2014-present.
<http://wice.committees.comsoc.org/>

Initiatives: a) created web site, FB page, and LinkedIn group, b) instituted WICE Best Poster Presentation Award at the Workshop of Women in Communications Engineering, c) instituted the WICE Outstanding Service Award, Outstanding Achievement Award, and Mentorship Award, d) organize panels at the ComSoc flagship IEEE ICC and Globecom conferences; e) organized the WICE Workshop at the IEEE Globecom 2016; f) instituted Travel Grants awards at IEEE ICC and Globecom.

- WIE Chair, *IEEE NL Section Executive* (2010-2013),
- Member of *WISE NL Executive* (2010-2013),
- Secretary of the *SPCE Technical Committee*, *IEEE ComSoc* (2012-2014),
- Member, *Registration Committee*, Professional Engineers and Geoscientists, Newfoundland and Labrador (*PEGNL*) (2009-2015),
- Awards and Scholarship Chair, *IEEE NL Section Executive* (2006-2010).

Member of the IEEE Eric E. Sumner Award Committee: invited member for 2014, 2015.

Member of the IEEE Kiyo Tomiyasu Award Committee: invited member for 2015, 2016.

Member of the Board of Directors, Canadian Society of Information Theory, 2015-2018.

Section Chair, ECE Evaluation Group, NSERC Discovery grant (2017), Member (2014-2016).

Member of the NSERC RTI Evaluation Committee (internal), Memorial University (2017).

Member of the IEEE TAB Committee on Women and Under-represented Groups (2017-2019).

Member, Banting Postdoctoral fellowship Committee (Internal, Memorial University, 2016).

Professional Membership:

- IEEE Senior member, *IEEE Communications Society, IEEE Instrumentation and Measurement Society, IEEE Vehicular technology Society, IEEE WIE.*
- Active member of the Radio Communications Committee (RCC), Communications Theory (CT), Cognitive Radio Networks (CRN), and SPCE Technical Committees of the *IEEE ComSoc,*
- Active member of the WUN Cognitive Communications Consortium
<http://www.wun-cogcom.org/members/Memorial.html>
- Professional engineer, PEGNL member, NL.

Special Session Organizer:

- Special Session on *Wireless Communications for Healthcare*, IEEE MEMEA 2014, Portugal.
- Special Session on *Cognitive Radio Systems*, IEEE CCECE 2009, Canada.

Founder of the Special Interest Group entitled Social Behaviour Driven Cognitive Radio Networks, *IEEE ComSoc Technical Committee on Cognitive Networks*, 2017.

Initiator of the MoU between Memorial University and Université de Bretagne Occidentale (UBO), France, 2014.

Member of the Conference Organizing Committee:

- IEEE NECEC 2011, 2010, and 2007, Canada,
- IEEE CCECE 2009, Canada,
- IEEE Conference Communications '98 and 2000, Bucharest, Romania.

Registration Chair: IEEE CCECE 2009, Canada.

Publication Chair: IEEE QBSC 2014, Queens University, Canada.

Publicity Chair: IEEE PIMRC 2017, Canada and IEEE CAMAD 2016, Canada.

Member of the Technical Program Committee (Selected):

- IEEE ICC: 2017: Communications Theory, Signal Processing for Communications, Wireless Networks, and Ad Hoc Wireless Sensor Networks Symposia (Paris); 2016: Communications Theory, Signal Processing for Communications, Wireless Networks, and Ad Hoc Wireless Sensor Networks Symposia (Kuala Lumpur); 2015: Communications Theory, Signal Processing for Communications, Wireless Networks, and Ad Hoc Wireless Sensor Networks Symposia; 2014: Communications Theory, Signal Processing for Communications, Wireless Networks, and Ad Hoc Wireless Sensor Networks Symposia; 2013, Cognitive Radio, Signal Processing for Communications, Wireless Networks, and Ad Hoc Wireless Sensor Networks Symposia,

Budapest, Hungary; 2012, Cognitive Radio, Signal Processing for Communications, Wireless Communications, Wireless Networks, and Ad Hoc Wireless Sensor Networks Symposia, Ottawa, Canada; 2011, Wireless Communications and Wireless Networks Symposia, Kyoto, Japan; 2010, Cape Town, SA.

- IEEE Globecom: 2016: Communications Theory, Signal Processing for Communications, Wireless Networks, and Ad Hoc Wireless Sensor Networks Symposia (Washington DC, USA); 2015: Communications Theory, Signal Processing for Communications, Wireless Networks, and Ad Hoc Wireless Sensor Networks Symposia (San Diego, USA); 2014, Austin, TX, 2013, Atlanta, USA; 2012, Anaheim, USA; 2011, Houston, USA; 2010, Miami, USA; 2009, Hawaii, USA—the same technical symposia as for IEEE ICC—
- IEEE I2MTC: 2017: Torino, Italy; 2016: Taipei, Taiwan, 2015: Pisa, Italy, 2014, Montevideo, Uruguay; 2013: Minnesota, USA.
- IEEE VTC: Fall 2014, Vancouver, Canada; Fall 2013, Las Vegas, USA; Fall 2012, Quebec City, Canada; Spring 2011, Budapest, Hungary; Spring 2010, Taiwan; VTC Fall 2010, Ottawa, Canada.
- IEEE CrownCom 2013, Washington DC, USA.
- IEEE ICSPCS: 2014, Australia, 2013, Australia, 2012, Honolulu, USA; 2010, Australia; 2009, Omaha, USA.
- *Others*: IEEE ICC: 2014, Shanghai, China, 2013, Xian, China; IEEE ICNC: 2014, Honolulu, 2013, San Diego, USA; IEEE CMC 2012, Guilin, China; IEEE CWIT, BC, Canada, 2012; 2011, BC, Canada; IEEE WiMob 2013, Lyon, France, 2012, Marrakech, Morocco; IEEE ISWCS 2011, Aachen, Germany; IEEE IEEE CCECE 2011, ON, Canada; IEEE Globecom IEEE Workshop on Statistical Signal Processing 2009, Cardiff, UK; IEEE WCNC 2009, Budapest, Hungary.

Reviewer (Selected):

- *Journals*: IEEE Transactions on Communications, IEEE Transactions on Vehicular Technology, IEEE Signal Processing Letters, IEEE Communications Letters, IEEE Transactions on Signal Processing, IEEE Transactions on Wireless Communications, IET Communications, ELSEVIER Signal Processing, European Transactions on Communications;
- *Conferences*: IEEE GLOBECOM, IEEE ICC, IEEE MILCOM, IEEE VTC, IEEE WCNC, IEEE CCECE, IEEE Queen's Symposium, IEEE ICT.
- *Funding Agencies*:
 - *Canada*: NSERC (Discovery, CRD, CRC programs), International Science and Technology Partnerships Canada (ISTP Canada), MITACS
 - *USA*: National Science Foundation (NSF)
 - *Belgium*: Research Foundation Flanders (FWO)
 - *Qatar*: Qatar Foundation.

Examiner of Master's Thesis: 8

Examiner for Comprehensive Exams: 31

External Examiner for PhD theses at:

- University of Manitoba, 2017
- Indian Institute of Technology, India, 2017
- Dalhousie University, 2016
- University of Toronto, 2015
- INSR, Montreal, Canada, 2015
- New Jersey Institute of Technology, Newark, USA, 2015, 2017

- McGill University, Canada, 2013
- University of Alberta, Canada, 2014.

Opponent of PhD thesis at KTH-University of Gavle, Sweden, March 2015.

Chair of the Graduate Studies Committee, Faculty of Engineering and Applied Science, Memorial University (2012-2013).

Co-Chair of the Graduate Studies Committee, Faculty of Engineering and Applied Science, Memorial University (2011-2012).

Member of the Academic Council of the School of Graduate Studies, Memorial University (2012-2013).

Member of the Board of Graduate Studies for the Master's Program MASCE, Faculty of Engineering and Applied Science, Memorial University (2008-present).

I have additionally served in several other committees at Memorial University since 2005.