

KEYNOTES, INVITED TALKS & SEMINARS, TUTORIALS – since 2004103. [Integrated Terrestrial/Non-Terrestrial 6G Networks for Ubiquitous 3D Super-Connectivity](#)

IEEE Communications Society Distinguished Lecture
Australian National University
Canberra, ACT, Australia, 09 July 2018

102. Integrated Terrestrial/Non-Terrestrial Super Networks of the Future for Ubiquitous High Rate Connectivity

Huawei Wireless Research Advisory Board Inaugural Meeting
Ottawa, Canada, 01 May 2018

101. Introduction to Research & Publishing: Part II

Wireless Seminar Series
Carleton University
Ottawa, Canada, 11 April 2018

100. Autonomous & Connected Vehicles: C-V2X: 4G → 5G → 6G

Panelist @ Charting AV/CV Technology Opportunities and Challenges Panel
Ottawa AV Summit 2018
Ottawa, Canada, 04 April 2018

99. Introduction to Research & Publishing: Part I

Wireless Seminar Series
Carleton University
Ottawa, Canada, 21 March 2018

98. Non-Terrestrial Networks

Invited Seminar
Communications Research Centre Canada
Ottawa, Canada, 27 February 2018

97. CAN-UAVs 2030 – Connected, Autonomous, Networked UAVs towards 2030s

4th Carleton Informal Workshop on Non-Terrestrial Networks
Ottawa, Canada, 20 December 2017

96. [5G and Beyond Wireless Networks: Emerging Concepts and Technologies](#)

Half-day tutorial
IEEE Globecom 2017
Singapore, 04 December 2017

95. [5G Wireless Technologies](#)

Carleton University Faculty of Engineering and Design Ingenious Talks
Ottawa, Canada, 01 November 2017

94. [Ultra-Agile Infrastructure for Ultra-Fast Connectivity](#)

Keynote speech
IEEE VTC2017-Fall Workshop on Next-Generation Backhaul/Fronthaul Networks (IEEE BackNets 2017)
Toronto, Canada, 24 September 2017

93. [Ultra-Agile Infrastructure for Ultra-Fast Connectivity](#)

Keynote speech
IEEE ICC 2017 Workshop on Flexible Networks (FlexNets)

Paris, France, 21 May 2017

92. [5G is Just Around the Corner: So What is Next?](#)

Keynote speech

25th Signal Processing and Communications Applications Conference (SIU) 2017

Antalya, Turkey, 17 May 2017

91. 5G Panel

Panel speaker

IEEE 5G Summit Casablanca

Casablanca, Morocco, 11 May 2017

90. [5G is Just Around the Corner: So What is Next?](#)

Keynote speech

The Third International Symposium on Ubiquitous Networking (UNET) 2017

Casablanca, Morocco, 10 May 2017

89. [IMT-2020 Evaluation Process](#)

Invited talk

WWRF (World Wireless Research Forum) Meeting #37

Kassel, Germany, 06 October 2016

88. [The IoE Revolution and 5G+](#)

Invited talk

WWRF Workshop on Wireless Technologies & Applications for the Internet of Everything

IEEE Vehicular Technology Conference (VTC) 2016-Fall)

Montreal, Quebec, Canada, 19 September 2016

87. A Realist's Views on 5G and Beyond

Invited talk

5G Core Network Summit

Ankara, Turkey, 15 June 2016

86. [Emerging Concepts and Technologies towards 5G+ Wireless Networks](#)

Half-day tutorial

IEEE International Conference on Communications (ICC) 2016

Kuala Lumpur, Malaysia, 27 May 2016

85. [Emerging Concepts and Technologies towards 5G+ Wireless Networks](#)

IEEE Malaysia ComSoc/VTS Joint Chapter Invited Seminar

Universiti Putra Malaysia

Serdang, Malaysia, 27 May 2016

84. 5G and Beyond Wireless Networks: Emerging Concepts and Technologies

Invited seminar

Spectrum, Information Technologies and Telecommunications Sector (SITT)

Innovation, Science and Economic Development Canada

Ottawa, ON, Canada, 19 April 2016

83. From Shannon's Information Theory to the Information Age

[The Shannon Conference \(Claude Shannon Centenary 2016\)](#)

Ottawa, ON, Canada, 15 April 2016

82. Roadmap to 5G and Beyond: Global Perspectives

Panel talk

Executive Panel at IEEE Wireless Communications and Networking Conference (WCNC) 2016
Doha, Qatar, 04 April 2016

81. [Promising PHY Research Directions for 5G+ Wireless](#)

Keynote Speech

IEEE WCNC 2016 Workshop on Novel Waveform and MAC Design for 5G
Doha, Qatar, 03 April 2016

80. [Emerging Concepts and Technologies towards 5G+ Wireless Networks](#)

Half-day tutorial

IEEE Wireless Communications and Networking Conference (WCNC)
Doha, Qatar, 03 April 2016

79. Promising Research Directions for 5G+ Wireless Networks

Tampere University of Technology, Invited Seminar

Tampere, Finland, 20 February 2016

78. [Emerging Concepts and Technologies towards 5G+ Wireless Networks](#)

Half-day industry tutorial

IEEE Global Communications Conference (Globecom) 2015
San Diego, CA, USA, 10 December 2015

77. The Wireless HetHetNets Framework and Some Remarks about 4G, 5G, and 6G

Panel talk

IEEE 5G Summit Toronto

Toronto, ON, Canada, 14 November 2015

76. [The HetHetNets Framework for 5G+ Wireless Networks: Highly Heterogeneous Traffic, Unprecedented Congestion, and Novel Solutions](#)

Invited Talk

Wireless World Research Forum, 35th Meeting (WWRF35)
Copenhagen, Denmark, 16 October 2015

75. [5G+ Wireless Networks: Roadmap and Enabling Technologies](#)

Half-day tutorial

IEEE Vehicular Technology Conference (VTC) Fall-2015
Boston, MA, USA, 06 September 2015

74. 5G+ Wireless Networks: Roadmap and Enabling Technologies

Invited Seminar

Bilkent University

Ankara, Turkey, 13 July 2015

73. [5G+ Wireless Networks: Roadmap and Enabling Technologies](#)

IEEE Communications Society Distinguished Lecture

Hacettepe University

Ankara, Turkey, 30 June 2015

72. [Emerging Concepts and Technologies towards 5G Wireless Networks](#)

Half-day tutorial

IEEE International Conference on Communications (ICC) 2015
London, UK, 12 June 2015

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71. [Some Emerging Concepts and Technologies on 5G+ Wireless Networks](#)
IEEE Communications Society Distinguished Lecture
Montreal, Quebec, Canada, 03 June 2015
70. The 5G+ HetHetNets Paradigm: Spatially Heterogeneous Traffic in Heterogeneous Cognitive Networks
Wireless Research Group Seminar
Carleton University
Ottawa, Ontario, Canada, 25 May 2015
69. 5G Wireless
Foxconn EBO Visit to Carleton University
Ottawa, Ontario, Canada, 05 May 2015
68. [The 5G+ HetHetNets Paradigm: Spatially Heterogeneous Traffic in Heterogeneous Cognitive Networks](#)
Keynote Speech
10th International Conference on Cognitive Radio Oriented Wireless Networks (CROWNCOM)
Doha, Qatar, 22 April 2015
67. [HetHetNets: Spatially Heterogeneous Traffic in Heterogeneous 5G+ Wireless Networks](#)
Keynote Speech
Argela Workshop on “SDN, NFV, Cloud RAN & Other Enabling Technologies on the Path towards 5G”
Istanbul, Turkey, 31 March 2015
66. HetHetNets: Spatially Heterogeneous Traffic in Heterogeneous Wireless Networks
Invited Seminar
Huawei Canada R&D Centre
Ottawa, Ontario, Canada, 05 March 2015
65. [HetHetNets: Spatially Heterogeneous Traffic in Heterogeneous Wireless Networks](#)
Invited Talk
NICT Japan-US Network Opportunity (JUNO) Workshop: Future Energy- and Spectral-Efficient Ultra-Dense Networks
Tohoku University
Sendai, Japan, 24 February 2015
64. 5G+ Wireless Networks: Some Emerging Concepts and Technologies
Invited Seminar
King Abdullah University of Science and Technology
Thuwal, Makkah Province, Saudi Arabia, 03 February 2015
63. Emerging Concepts and Technologies towards 5G Wireless Networks
Invited Seminar
Allen Vanguard
Ottawa, Ontario, Canada, 21 January 2015
62. [Emerging Concepts and Technologies towards 5G Wireless Networks](#)
IEEE Distinguished Lecture
IEEE Montreal Chapters of Vehicular Technology, Communications and Information Theory, and Signal Processing
Montreal, Quebec, Canada, 18 December 2014
61. [Emerging Concepts and Technologies towards 5G Wireless Networks](#)
Half-day tutorial
IEEE Global Communications Conference (Globecom) 2014

Austin, Texas, USA, 12 December 2014

60. [Emerging Concepts and Technologies towards 5G Wireless Networks](#)

IEEE Distinguished Lecture
IEEE Kingston Section, Queens University
Kingston, Ontario, Canada, 27 March 2014

59. Towards 5G Networks

Keynote Speech
3rd Defence, Security, and Information Technologies Inter-Industry Cooperation Conference
Istanbul, Turkey, 06 March 2014

58. [Emerging Concepts and Technologies for 5G Wireless Networks](#)

IEEE Vehicular Technology Society Distinguished Lecture
Vancouver, BC, Canada, 24 February 2014

57. [Moving Forward in Wireless: Emerging Concepts & Technologies for Beyond-2020 Cellular Networks](#)

Half-day tutorial
IEEE Global Communications Conference (Globecom) 2013
Atlanta, Georgia, USA, 13 December 2013

56. A Fresh Look into a Classical Topic: Signal Constellation Design in Advanced Wireless Network Architectures

Invited Talk
Huawei 5G Workshop
Ottawa, Canada, 14 November 2013

55. Emerging Concepts and Technologies for 5G Wireless Networks

Invited Talk
AveaLabs Innovation Days Seminar
Istanbul, Turkey, 25 July 2013

54. [Emerging Concepts and Technologies for 5G Wireless Networks](#)

Invited Seminar
Hacettepe University
Ankara, Turkey, 24 July 2013

53. [Moving Forward in Wireless: Emerging Concepts & Technologies for Beyond-2020 Cellular Networks](#)

Half-day tutorial
IEEE International Conference on Communications (ICC) 2013
Budapest, Hungary, 13 June 2013

52. Moving Forward in Wireless: Emerging Concepts & Technologies for Beyond-2020 Cellular Networks

IEEE Kitchener-Waterloo Section Distinguished Lecture
Waterloo, Ontario, Canada, 03 May 2013

51. Moving Forward in Wireless: Emerging Concepts & Technologies for Beyond-2020 Cellular Networks

Invited Seminar
Defence Research and Development Canada (DRDC)
Ottawa, 25 April 2013

50. [Moving Forward in Wireless: Emerging Concepts & Technologies for Beyond-2020 Cellular Networks](#)

Cornell University Information Systems and Networks Invited Lecture
Ithaca, New York, USA, 03 April 2013

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49. Important Problems and Some Thoughts Towards Their Solutions in Beyond-2020 Wireless Networks
Invited Seminar
Telus, Technology Strategy and Operations
Toronto, Ontario, Canada, 28 February 2013
48. Moving Forward in Cellular: 5G Networks
Invited Seminar
Telus Technology Summit 2013
Toronto, Ontario, Canada, 28 February 2013
47. Emerging Research Direction in Wireless
Invited Seminar
Huawei Canada R&D Centre
Ottawa, Ontario, Canada, 15 February 2013
46. Important Problems and Some Thoughts Towards Their Solutions in Beyond-2020 Wireless Networks:
Radio Access Network Architectures, Layer-1, and Layer-2
Invited Seminar
Research In Motion, Advanced Technology Group
Ottawa, Ontario, Canada, 13 December 2012
45. Important Problems and Some Thoughts Towards Their Solutions in Beyond-2020 Wireless Networks:
Radio Access Network Architectures, Layer-1, and Layer-2
Invited Talk
Wireless World Research Forum Meeting 29 (WWRF29), Wireless World 2020 Workshop
Berlin, Germany, 24 October 2012
44. The WINNER Experience
Invited Talk
ERA-CAN (European Research Area & Canada) Framework Program 7, Info Session
Carleton University
Ottawa, Ontario, Canada, 06 November 2012
43. [Moving Towards 5th Generation Wireless Cellular Networks: Emerging Concepts and Trends](#)
Keynote Speech
International Conference on Electrical and Computer Systems (ICECS), Keynote Speech
Ottawa, Ontario, Canada, 22 August 2012
42. Important Problems and Some Thoughts Towards Their Solutions in Beyond-2020 Wireless Networks:
Radio Access Network Architectures, Layer-1, and Layer-2
Invited Talk
Huawei University Day Workshop
Huawei Canada Research Centre
Ottawa, Ontario, Canada, 28 August 2012
41. Moving Forward in Cellular: Emerging Concepts and Technologies for Beyond 4G Networks
Invited Seminar
Istanbul Technical University, Electronics & Communications Engineering Department
Istanbul, Turkey, 10 July 2012
40. Tips to Graduate Students:
Conducting Quality Research and On the Art and Science of Publishing in Scholarly Periodicals
Invited Seminar

Istanbul Technical University, Electronics & Communications Engineering Department
Istanbul, Turkey, 10 July 2012

39. Cooperation: A Key Feature of Oncoming Cellular Systems

Keynote Speech

Future Networks & Mobile Summit 2012, IC1004 Cooperative Radio Communications Workshop
Berlin, Germany, 04 July 2012

38. Moving Forward in Cellular: Emerging Concepts and Technologies for Beyond 4G Networks

Invited Seminar

Polytechnic University of Valencia, Institute of Telecommunications and Multimedia Applications (iTEAM)
Valencia, Spain, 31 May 2012

37. Tips to Graduate Students:

Conducting Quality Research and On the Art and Science of Publishing in Scholarly Periodicals

Invited Seminar

Polytechnic University of Valencia, Institute of Telecommunications and Multimedia Applications (iTEAM)
Valencia, Spain, 31 May 2012

36. Interdisciplinary Research in Engineering:

Its Importance, Mechanisms to Facilitate it, and its Impact on Engineering Education

Invited Seminars

TOBB University of Economy and Technology
Ankara, Turkey, 23 May 2012

35. Tips to Graduate Students:

Conducting Quality Research and On the Art and Science of Publishing in Scholarly Periodicals

Invited Seminars

King Saud University (KSU), Department of Electrical Engineering
Riyadh, Saudi Arabia, 15 May 2012

34. Moving Forward in Cellular: Emerging Concepts and Technologies for Beyond 4G Networks

Invited Seminars

King Saud University (KSU), Department of Electrical Engineering
Riyadh, Saudi Arabia, 14 May 2012

33. Moving Forward in Cellular: Emerging Concepts and Technologies for Beyond 4G Networks

Invited Seminars

Saudi Telecom Society
Riyadh, Saudi Arabia, 14 May 2012

32. 4G and Beyond-4G Wireless Networks

2-Day Short Course

Saudi Telecom Company (STC)
Riyadh, Saudi Arabia, 12 & 13 May 2012

31. Moving Forward in Cellular: Emerging Concepts and Technologies for Beyond 4G Networks

Invited Seminar

King Fahd University of Petroleum & Minerals (KFUPM), Department of Electrical Engineering
Dhahran, Saudi Arabia, 09 May 2012

30. Tips to Graduate Students:

Conducting Quality Research and On the Art and Science of Publishing in Scholarly Periodicals

Invited Seminar

King Fahd University of Petroleum & Minerals (KFUPM), Department of Electrical Engineering
Dhahran, Saudi Arabia, 09 May 2012

29. Interdisciplinary Research in Engineering:

Its Importance, Mechanisms to Facilitate it, and its Impact on Engineering Education

Panel Talk

The 5th Engineering and Technology Symposium

Cankaya University

Ankara, Turkey, 26 April 2012

28. Moving Towards 5th Generation Wireless Cellular Networks: Emerging Concepts and Trends

Tutorial

20th IEEE Signal Processing and Communications Applications Conference

Fethiye, Mugla, Turkey, 18 April 2012

27. On the Art and Science of Publishing in Scholarly Periodicals: Tips to Graduate Students

Invited Seminar

TOBB University of Economy and Technology

Ankara, Turkey, 15 February 2012

26. Emerging Concepts and Trends in Wireless Communications Technologies and Education

Invited Talk

Aselsan Communications Technologies Workshop (Aselsan Haberlesme ve Bilgi Teknolojileri Calistayi)

Ankara, Turkey, 13–14 October 2011

RECORDS NOT AVAILABLE: May – October 2011

25. Emerging Concepts and Technologies for Beyond-4G Wireless Cellular Networks for Broadband Connectivity

Invited Talk

IEEE 19th Signal Processing and Communications Applications Conference (SIU) 2011

Antalya, Turkey, 20–22 April 2011

24. Emerging Concepts and Technologies for Beyond-4G Wireless Cellular Networks for Broadband Connectivity

Invited Seminar

Hughes

Germantown, Maryland, USA, 14 March 2011

23. Emerging Concepts and Technologies for Beyond-4G Wireless Cellular Networks for Broadband Connectivity

Distinguished Speaker Seminar Series

School of Computing, Queen's University

Kingston, Ontario, Canada, 20 January 2011

22. Cooperation is not Limited to Physical Layer: Distributive Networks with Cross-Layer and Across Network Cooperation and Coordination

Invited Seminar

Seminar Series on Signal Processing and Communications

Hacettepe University

Ankara, Turkey, 30 July 2010

21. Cooperation is not Limited to Physical Layer: Distributive Networks with Cross-Layer and Across Network Cooperation and Coordination

Invited Seminar

Huawei Canada Research Centre

Ottawa, Ontario, Canada, 11 June 2010

20. Cooperation is not Limited to Physical Layer: Distributive Networks with Cross-Layer and Across Network Cooperation and Coordination

Panel Talk

MIMO versus Cooperation Panel, IEEE Vehicular Technology Conference (VTC2010-Spring)

Taipei, Taiwan, 19 May 2010

19. The Building Blocks of the 5th Generation (5G) Wireless Networks for Affordable and Ubiquitous Broadband Connectivity

Plenary Speech

17th International Conference on Telecommunications (ICT 2010)

Doha, Qatar, 05 April 2010

18. The Building Blocks of the 5th Generation (5G) Wireless Networks for Affordable and Ubiquitous Broadband Connectivity

Plenary Speech

International Conference on Communication Technologies (ICCT 2010)

Riyadh, Saudi Arabia, 20 January 2010

17. The Building Blocks of the 5th Generation (5G) Wireless Networks for Affordable and Ubiquitous Broadband Connectivity

Invited Seminar

RIM (Research In Motion), Advanced Technology Lab

Ottawa, Ontario, Canada, 18 November 2009

16. The Building Blocks of the 5th Generation (5G) Wireless Networks for Affordable and Ubiquitous Broadband Connectivity

Seminar Talk, Defence Research & Development Canada (DRDC), Ottawa, Canada, 15 October 2009

15. Radio Access Network (RAN) Architectures and Radio Resource Management Techniques for Beyond-4G Wireless Networks

Invited Seminar

Royal Institute of Technology (KTH)

Stockholm, Sweden, 12 June 2009

14. Broadband Wireless Connectivity: Right of Every Citizen"

Invited Seminar

Industry Canada, Spectrum Engineering

Ottawa, Canada, 06 May 2009

13. Mesh Based Radio Access Network Architectures for Beyond-4G Wireless Networks

Invited Seminar

RIM (Research In Motion)

Kitchener/Waterloo, Canada, 21 November 2008

12. Wireless Research
Invited Seminar
Industry Canada
Ottawa, Canada, 23 October 2008
11. Essential Components of Next-G Wireless: Advanced Radio Access Network and Advanced Radio Resource Management with Cross-Layer and Across Network Design
Panel Talk
Cross-Layer Design Panel, World Wireless Research Forum, Meeting #20
Ottawa, Ontario, Canada, 22 April 2008
10. An Overview of Radio Resource Management Techniques
Invited Seminar
Communications Research Centre of Canada (CRC)
Ottawa, Ontario, Canada, 27 March 2008
9. Wireless Multihop, Relay, Mesh Networks and Cooperative Communications: Fundamental Dynamics and Some Emerging Lines of Research
Invited Seminar
Yonsei University
Seoul, Korea, 29 August 2007
8. Cooperative Strategies for Future Wireless Communication Systems: A Critical View
Executive Panel Talk
IEEE International Conference on Communications (ICC) 2006
Istanbul, Turkey, 13 June 2006
7. Nortel Networks - Carleton University Collaboration on Multihop/Relay/Mesh Networks
Invited Talk
Nortel Networks - Wireless Forum XV
Ottawa, Ontario, Canada, 09 November 2006
6. Nortel Networks - Carleton University Collaboration on Multihop/Relay/Mesh Networks
Invited Talk
Nortel Networks - Wireless Forum XIV
Ottawa, Ontario, Canada, 09 September 2005
5. Infrastructure-Based Wireless Relay, Mesh, Multihop Networks
Invited Seminar
Enabling Technologies for 4G, Samsung Electronics, IT Center
Suwon, Korea, 16 May 2005
4. Infrastructure-Based Relay/Mesh/Multihop Networks
Invited Talk
Wireless Industry Congress (WIC'04)
Ottawa, Ontario, Canada, 18-19 October 2004
3. Cellular Multihop Communications: Infrastructure-Based Relay Network Architecture for 4G Wireless Systems
Invited Talk

Queen's University 22nd Biennial Symposium on Communications (QBSC'04)
Kingston, Ontario, Canada, 01 June 2004