

KEYNOTES, INVITED TALKS & SEMINARS, TUTORIALS – since 200495. [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
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

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