

**KEYNOTES, INVITED TALKS & SEMINARS, TUTORIALS – since 2004**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

25<sup>th</sup> 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 &amp; 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, 35<sup>th</sup> 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

3<sup>rd</sup> 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 5<sup>th</sup> 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 19<sup>th</sup> 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