



Wednesday, June 13, 2012 • Issue 3

••• Conference Addresses •••



IEEE ICC 2012's "Welcome & Opening Keynote" session began Tuesday morning with greetings and introductions from General Chair Ibrahim Gedeon of TELUS Canada. After his brief comments, several IEEE and local government dignitaries then offered their thoughts about the advance of global communications and its ability to positive impact lives worldwide.

This conversation began with the Honorable Gary Goodyear, Minister of State, Science and Technology and the Federal Economic Development Agency for Southern Ontario. During his remarks, Goodyear emphasized the need for colleges, government and corporations to create knowledge, move along processes that increase the quality of life and develop infrastructures that will grow into the future through an environment of harmony that eliminates silos. As examples, he cited the ongoing initiatives of his government, which according to KPMG have helped to rank Canada as the world's "most cost-competitive country for digital operations."

Following Goodyear, Executive Conference Chair Wahab Almuhtadi of Algonquin College in Canada thanked the conference's 2,500 attendees for their participation and welcomed them to experience the event's full schedule that includes 18 Technical Symposia, 18 Industry Forums, powerful keynote addresses and the Tuesday 6:00 p.m. "Dialogue with Industry Leaders" hosted by Amanda Lang of The National and co-host of the Lang & O'Leary Exchange. In addition, IEEE ComSoc President Vijay Bhargava in both French and English welcomed all to Ottawa, while highlighting the IEEE Comsoc's 60th anniversary and growing worldwide presence that now includes 200 chapters worldwide, 30 sister societies and affiliations with 500,000 professionals around the globe. Technical Program Chair Dr. Hussein Mouftah also urged everyone in attendance to take advantage of the next three days and its comprehensive technical schedule offering nearly 1,100 paper presentations across 180 sessions, 12 tutorial, 27 workshops and executive-level plenaries.

Eros Spadotto, Executive Vice President, Technology Strategy TELUS then began his keynote address by citing the need to look at problems from the user perspective - from the outside in rather than the inside out, which was the policy in past decades. This is due to the continued democratization of social media and the changing world's reliance on wireless devices including SmartPhones that "never turn off and even do things while you sleep." As a result, convergence must be emphasized to apply new innovations and overcome the "signal storm" that "now makes every hour on the network a busy hour."

In the second keynote of the morning, Ian F. Akyildiz of the Telecommunication Group & Broadband Wireless Networking Lab at Georgia Institute of Technology, spoke at length about the "Fundamentals of Molecular Nano-Communication Networks" and the prospects of revolutionizing industry and the administration of health care with bio-inspired nano-machines that will attack tumors, enhance life spans and fight illnesses like epilepsy. According to Dr. Akyildiz, this will all be likely with the next decade as targeted drug delivery becomes a reality based on the combined interdisciplinary achievements of biologists, chemical engineers and scientists. Other notable achievements resulting from the integration of nano-components and DNA scaffolding to create graphene-enabled nanocommunications technologies resulting in the development of everyday materials that are "harder than steel and conduct electricity better than copper."

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... Happening Today at IEEE ICC 2012 ...

08:00 – 9:45

Industry Forums

SA02: National Systems / 214/2F

MM03: Security / 205&7/2F

Technical Sessions

AH10: Routing III / 201/2F

AH11: Scheduling / 202/2F

AH12: Cooperative Networking / 203/2F

CISS-06: Wireless Sensor Network Security / 204/2F

CQR05: Quality and Performance in Grid, Distributed and Cloud Computing / 206/2F

CQR06: Quality, Scalability and Performance in the Internet II / 108/1F

CRN04: Resource Allocation I / 105/1F

CSS04: Peer-to-Peer / 104/1F

CT07: Multicell Network / 103/1F

CT08: Wireless Networks / 106/1F

NGN04: Network Virtualization / 102/1F

ONS01: Energy-efficient Optical Networks I / 107/1F

SA-SSC2: Satellite & Space Networking / 101/1F

SPC07: Beamforming and Multi-antenna Systems I / 210/2F

WC13: Coordinated Multi-Point Transmission Systems / 208/2F

WC14: Space-Time Coding II / 209/2F

WC15: MIMO I / 215/2F

WC16: Relay Technologies I / 211/2F

WN07: Femtocell Networks I / 212/2F

WN08: Wireless Relay Networks I / 213/2F

09:45 – 10:10

Coffee Break / Canada Hall II&III (302&3)/3F

10:10 – 12:30

Keynote & Plenary Session / Canada Hall I (301)/3F

Matt Bross, CTO & VC, Huawei

H. Vincent Poor, Prof, Princeton University

Mike Hill, VP, IBM

P. R. Kumar, Prof, Texas A&M University

10:45 – 18:00

Exhibition / Canada Hall II&III (302&3)/3F

12:30 – 14:00

Lunch / On Your Own

14:00 – 15:45

Industry Forums

SA03: Advanced Technologies / 214/2F

INFRA04: Cloud Security / 205&7/2F

Technical Sessions

AH13: Medium Access Control (MAC) I / 201/2F

AH14: Resource Allocation / 202/2F

AH15: Performance Evaluation / 203/2F

CISS07: Malware and OS Security / 204/2F

CQR07: Quality and Performance in Next Generation Mobile Networks / 206/2F

CRN05: Resource Allocation II / 108/1F

CRN06: Performance Modeling and Analysis I / 105/1F

CSS05: Streaming / 104/1F

CT09: Network Information Theory / 103/1F

CT10: Diversity / 106/1F

NGN05: Mobile and Wireless Networks I / 102/1F

ONS02: Energy-efficient Optical Networks II / 107/1F

SA-SG1: Smart Grid I / 101/1F

SPC08: Localization / 210/2F

WC17: Energy Efficient Design II / 208/2F

WC18: Resource Allocation / 209/2F

WC19: Spectrum Sensing for Cognitive Radio / 215/2F

WC20: Relay Technologies: Decode-and-Forward / 211/2F

WN09: Femtocell Networks II / 212/2F

WN10: Wireless Relay Networks II / 213/2F

Poster Sessions / Canada Hall II&III (302&3)/3F

AH-P4: Wireless Network Applications III

NGN-P1: Topics on Next Generation Networking and Internet I

WC-P2: Topics in Wireless Communications II

WN-P1: Wireless Networks I

15:45 – 16:15

Coffee Break / Canada Hall II&III (302&3)/3F

Prize Drawings (must be present to win)

16:15 – 18:00

Industry Forums

INFRA05: Mobile Backhaul / 205&7/2F

MM04: Green Communications / 214/2F

Technical Sessions

AH16: Wireless Sensor and Actor Networks I / 201/2F

AH17: Medium Access Control (MAC) II / 202/2F

AH18: Security II / 203/2F

CISS08: Mobile Security / 204/2F

CQR08: Quality and Performance in Wireless Networks / 206/2F

CRN07: Spectrum Analysis / 108/1F

CRN08: Spectrum Access I / 105/1F

CSS06: Coding / 104/1F

CT11: Performance Analysis / 103/1F

CT12: Relay II / 106/1F

NGN06: Mobile and Wireless Networks II / 102/1F

ONS03: Optical Network Survivability / 107/1F

SA-SG2: Smart Grid II / 101/1F

SPC09: Channel Estimation, Equalization and Decoding II / 210/2F

WC21: UWB / 208/2F

WC22: Relay Technologies II / 209/2F

WC23: Wireless Channel and Propagations / 215/2F

WC24: Network Coding / 211/2F

WN11: Scheduling in Wireless Networks / 212/2F

WN12: Energy Efficiency / 213/2F

Poster Sessions / Canada Hall II&III (302&3)/3F

NGN-P2: Topics on Next Generation Networking and Internet II

SPC-P1: Signal Processing for Communications I

WC-P3: Topics in Wireless Communications III

WN-P2: Wireless Networks II

18:30 – 23:30

Conference Banquet / Trillium Ballroom/4F

Sir Terry Matthews, Founder & Chairman, Wesley Clover

app assistance



- Rate Speakers by clicking on the Rate button on the session abstracts of the “Program” feature. Click on a star to rate.



- Find session rooms by using the Map button on the session abstracts of the “Program” feature.
- Label your device. Peel & Stick labels are available at Registration.
- Onsite assistance is available throughout the conference at the Tech Help Desk located in the Registration Area next to the Speaker Ready Area.
- Email questions or problems with the Paperless+™ application to paperlessplus@icc2012.ca.

did you know

- **Prize drawings** will be held during the Wednesday and Thursday afternoon coffee breaks in the exhibition. Drop your ticket (included in your registration packet) or business card in the box on the center stage. One prize per attendee. Must be present to win.
- **The Connect • Communicate • Collaborate Team Activity prize drawing** will be held on Wednesday in the exhibition during the coffee break.
- **Speakers** should report to the Speaker Ready Area 30 minutes prior to their sessions to upload and review their presentations. If your presentation contains video, please let the tech assistant know.
- **Conference photos** can be found on the **IEEE ICC FACEBOOK** page. If you would like to share your photos with fellow attendees, please post on <http://www.facebook.com/IEEEICC>.
- **Lost & Found** is located at Registration.

not to miss

- Wednesday morning keynote and plenaries includes Matt Bross, CTO & Vice Chairman of Huawei, comments of industry plenary speaker Mike Hill, VP Enterprise Initiatives of IBM, and technical plenary presentations of H. Vincent Poor of Princeton University, who will discuss “Fundamental Limits on Information Security and Privacy” and P. R. Kumar of Texas A&M University, who will address “The Coming Era of Cyber-Physical Systems.”
- Best Paper Awards Ceremony will follow the Wednesday morning keynote and plenary session.
- Wednesday Industry Forums on National Systems, Security, Advanced Technologies, Cloud Security, Mobile Backhaul and Green Communications.
- Wednesday Women in Engineering (WIE) Luncheon Panel in the exhibition.
- Wednesday evening conference banquet highlighted by an address from Sir Terry Matthews, Founder and Chairman of Wesley Clover. (Included in a full registration.)
- Thursday morning keynote and plenary session features Marcus Weldon, CTO of Alcatel-Lucent, comments of industry plenary speaker Lucy Hood, Executive Director of Communication Technology Management and the technical plenary presentations of Raj Jain of Washington University, St-Louis, who will speak on the “Next Generation Internet: Architectures for Future Internet Evolution” and Victor Bahl of Microsoft will be “Putting the Cloud in the Palm of Your Hand.”

More information on these events can be found on the “Program” feature on the App.

awards



IEEE Awards Luncheon Honors Outstanding Contributions

For nearly a century, the IEEE Awards program has paid tribute to technical professionals, whose exceptional achievements and outstanding contributions have made a lasting impact on technology, society and engineering profession.

This tradition continued earlier this afternoon at the IEEE ICC 2012 Awards Luncheon when several distinguished colleagues and friends were honored for their service to the IEEE, IEEE Communications Society and ongoing efforts to advance communications technologies for the betterment of all people worldwide.

After the introductory remarks of IEEE ComSoc President Vijay Bhargava and IEEE Awards Chair Andreas Molisch of the University of Southern California, this year's awards were provided to the following **2012 IEEE FELLOWS**:

- **Roger Cheng** of the School of Engineering at HKUST “for contributions to multiuser communications in wireless systems”
- **Stefano Galli** of ASSIA “for contributions to theory, practice, and standardization of power line communication networks”
- **Ahmed Kamal** of Iowa State University “for contributions to optical networks provisioning for multipoint traffic”
- **Vincent Lau** of the Huawei-HKUST Joint Innovation Lab at HKUST “for contributions to wireless communication systems with channel feedback”
- **Ranjan Mallik** of the Indian Institute of Technology (IIT) Delhi “for contributions to channel characterization in wireless communication systems”
- **Zhisheng Niu** of the Tsinghua University of China contributions to collaborative radio resource management in wireless networks”

Additional honorees recognized throughout the ceremonies included:

- **Ni-Chung Wang, Ezio Biglieri** and **Kung Yao** of the University of California, Los Angeles, who were provided with the Journal of Communications & Networks (JCN) Best Paper Award for their paper titled “A Systolic Arrays for Lattice-Reduction-Aided MIMO Detectors”
- **Lawrence Bernstein**, who was honored with the 2011 Industrial Innovation Award “for innovations in software engineering and project management in support of supplying telephone service to the public”
- **Andreas F. Molisch** of the University of Southern California and **Jack H. Winters** of Jack Winters Communications, who were the co-recipients of the 2012 IEEE Eric E. Sumner Award “for contributions to the theory and application of multiple-antenna systems in wireless communications”