

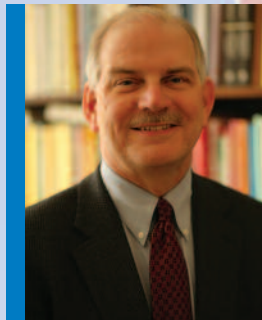


Thursday, June 14, 2012 • Issue 4

••• **Keynote & Plenary Session** •••



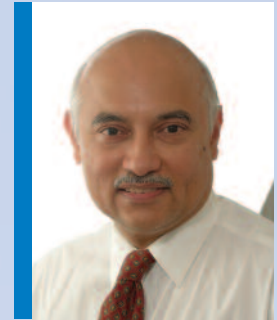
Matt Bross



H. Vincent Poor



Mike Hill



P. R. Kumar

**Keynote Agenda Continued on Wednesday Morning  
with Presentations from Leading Corporate & Academic Communications Authorities**

After brief ceremonies honoring the conference’s “Best Paper” award winners (see page 5 for the complete list of winners), IEEE ICC 2012’s keynote program renewed with the presentations of Matt Bross of Huawei, H. Vincent Poor of Princeton University, Mike Hill of IBM and P. R. Kumar of Texas A&M University.

Matt Bross began his talk by furthering the previous evening’s “Dialog with Industry Leaders” and describing innovation as “inventions that advance life and business” in addition to “accelerating the evolutionary timeframe.” He then expanded on this notion by highlighting the numerous ways that younger people are now and seemingly without effort processing information from numerous sources, while multitasking on multiple digital devices. As a result, Bross stressed the need for industry to shift their emphasis “from addresses to people,” who have shifted the power equation and are now driving innovation, making decisions and accessing data at the “Speed of Life.”

Following these comments, H. Vincent Poor of Princeton University spoke on the “Fundamentals Limits of Information Security and Privacy” as well as the key techniques for improving capacity and reliability. This included a discussion of quantifiable tradeoffs between privacy and utility and numerical and non-numerical data in applications such as smart grid metering, where rival companies would like the ability to share information during certain partnerships, but not reveal too much for competitive reasons.

Mike Hill of IBM then addressed the business opportunities now offered to service providers through the latest smart cloud technologies. Hill highlighted the growing desire of companies ranging from small and medium to large corporate giants to make services and products “more consumption-oriented” through these new “systems of engagement” that are rapidly providing the analytics and mobility to deal with customers on an individual, personalized basis. This includes using a standard set of building blocks to deliver unlimited self-service backed by high levels of automation and the ability to readily adjust to customer fluctuations in behavior.

P. R. Kumar of Texas A& M University then concluded the session by spotlighting the IEEE’s 100th anniversary and the “Challenges of Cyberphysical Systems.” Citing the latest research into the development of collision avoidance algorithms for cars as an example, Poor stressed the need for realizing real-time communications that process information in-network and explore the convergence of control with communication and computing.

**TABLE OF CONTENTS**

Happening Today . . . . .2  
 Conference Corner . . . . .3  
 Exhibits . . . . .3  
 Awards . . . . .5

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

**08:00 – 09:45**

### Industry Forums

**SA04:** Patent and Licensing Strategies / 214/2F

**MM05:** IPTV / 205&7/2F

### Technical Sessions

**AH19:** Localization II / 201/2F

**AH20:** Femtocell and Networks / 202/2F

**AH21:** Wireless Sensor and Actor Networks II / 203/2F

**CISS09:** Multimedia Security / 204/2F

**QOR09:** Information based Wireless and Mobile Networks and Services / 206/2F

**CRN09:** Performance Modeling and Analysis II / 108/1F

**CRN10:** Spectrum Access II / 105/1F

**CSS07:** Resource Management / 104/1F

**CT13:** Heterogeneous Network / 103/1F

**CT14:** Network Coding / 106/1F

**NGN07:** Routing I / 102/1F

**ONS04:** Optical Network Design and Control / 107/1F

**SA-TC01:** Tactical Communications and Operations / 101/1F

**SPC10:** MIMO Systems / 210/2F

**WC25:** Performance Analysis for Relay Systems II / 208/2F

**WC26:** Cognitive Radio Networks / 209/2F

**WC27:** OFDMA / 215/2F

**WN13:** Resource Allocation I / 211/2F

**WN14:** Vehicular and Mobile Ad Hoc Networks / 212/2F

**WN15:** Heterogeneous Wireless Networks / 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

**Marcus Weldon**, CTO, Alcatel-Lucent

**Raj Jain**, Prof, Washington University, St-Louis

**Lucy Hood**, ED, CTM

**Victor Bahl**, Director, Microsoft

**10:45 – 16:30**

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

**12:30 – 14:00**

**Lunch** / On Your Own

**14:00 – 15:45**

### Industry Forums

**SA05:** Government and Defence / 214/2F

**MM06:** IPv6 / 205&7/2F

### Technical Sessions

**AH22:** Wireless Mesh Networks / 201/2F

**AH23:** Relay and Network Coding / 202/2F

**AH24:** Mobile and Vehicular Networks / 203/2F

**CISS10:** Network Analysis / 204/2F

**QOR10:** Network Modeling & Performance Evaluation Techniques / 206/2F

**CRN11:** Game Theory and Network Economics / 108/1F

**CRN12:** Performance Modeling and Analysis III / 105/1F

**CSS08:** Collaborative Media / 104/1F

**CT15:** MIMO II / 103/1F

**NGN08:** Routing II / 106/1F

**NGN09:** Content Delivery and Cloud Computing / 102/1F

**ONS05:** Optical Access Networks I: PON / 107/1F

**SA EH1:** SAC E-Health / 101/1F

**SPC11:** Beamforming and Multi-antenna Systems II / 210/2F

**WC28:** Coding / 208/2F

**WC29:** Physical-Layer Network Coding / 209/2F

**WC30:** Wireless Systems / 215/2F

**WN16:** Resource Allocation II / 211/2F

**WN17:** Opportunistic Wireless Networking / 212/2F

**WN18:** Mobile Wireless Networks / 213/2F

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

**CISS-P1:** P2P Security

**CT-P1:** Compressed Sensing and New Applications

**SPC-P2:** Signal Processing for Communications II

**WC-P4:** WC-P4: Topics in Wireless Communications IV

**15:45 – 16:15**

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

**16:15 – 18:00**

### Industry Forums

**SA06:** Identity Management / 214/2F

**INFRA06:** Content and CDN / 205&7/2F

### Technical Sessions

**AH25:** Wireless Sensor and Actor Networks III / 201/2F

**AH26:** Algorithms and Protocols for Wireless Networks / 202/2F

**AH27:** Wireless Network Applications I / 203/2F

**CISS11:** Privacy and Information Hiding / 204/2F

**QOR11:** Performance Modeling of Next Generation Networks / 206/2F

**CRN13:** Interference Analysis and Management / 108/1F

**CT16:** Coding Theory / 103/1F

**NGN10:** Cloud and Data Center / 106/1F

**NGN11:** Router Architecture & Switch Design / 102/1F

**ONS06:** Optical Access Networks II: OCDMA and FSO / 107/1F

**SA-PLC1:** SAC-Powerline Communications / 105/1F

**SA EH2:** SAC E-Health / 101/1F

**SPC12:** Channel Modeling / 104/1F

**SPC13:** OFDM and Multi-Carrier Systems II / 210/2F

**WC31:** MIMO in Cooperative Communications / 208/2F

**WC32:** MIMO II / 209/2F

**WC33:** Estimation and Detection / 215/2F

**WN19:** Performance Evaluation for Wireless Networks / 211/2F

**WN20:** Modeling and Optimization / 212/2F

**WN21:** Routing in Wireless Networks / 213/2F

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

**CISS-P2:** Intrusion Detection

**CSS-P1:** CSS-P1

**CT-P2:** Wireless Communications

**WC-P5:** Topics in Wireless Communications V



# conference corner



- **Keynote, Plenary and Industry Forum presentations** are available for download on the session abstracts of the “Program” feature on the App.
- **Prize drawings** will be held during the Thursday afternoon coffee break 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.
- **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.
- **Tablet and App onsite assistance** is available at the Tech Help Desk located in the Registration Area next to the Speaker Ready Area.
- **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>.
- **Check out the Thursday Industry Forums** on Patent and Licensing Strategies, IPTV, Government & Defence, IPv6, Identity Management and Content & CDN.
- **Don't miss the Thursday morning Keynote and Plenary Session** featuring Marcus Weldon, CTO of Alcatel-Lucent, 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.”
- **The conference concludes on Friday with a full day of Tutorials and Workshops** on Green Communications, Security, Small Cell Wireless Networks, Software Defined Networks, Radar & Sensor Network, Inter-Vehicular Communications, 4G Networks, Consumer Health Care Networks, Wireless Communications, ICT Infrastructure and more.

# last day of Exhibits



## Alcatel-Lucent

### Booth 302 & 303

Check out video demonstrations highlighting the Alcatel-Lucent high leverage networks.

## Algonquin College

### Booth 413

Grab a pen and marketing information on our college programs.

## Aruba

### Booth 200

Get information on the assisting provider of wireless networks for the conference.

## BEEcube

### Booth 202

Enter to win iPad and view live hardware demos.

## The Borden Ladner Gervais (BLG) Technology Group

### Booth 206

Download free publications and enter to win a BlackBerry Mini Keyboard Accessory. Winner selected at the 16:00 coffee break. Must be present to win.

## Canadian Wireless Trade Show (CWTS)

### Booth 109

Pick up trade show program information about our show to be held September 12 – 13, 2012.

## Cambridge University Press

### Booth 103

Get 20% off all books and enter for a chance to win a free book. Don't have to be present to win.

## Carleton University

### Booth 403

Learn about our graduate and research programs and pick up submission information and Faculty Research Review brochure.

# last day of Exhibits



## **Ciena**

### **Booth 409**

Check out the presentation introducing Wavelogic 3.

## **ComSoc Training**

### **Booth 301**

Learn about our one-day, two-day, three-day and five-day in-person and online training options.

## **EION**

### **Booth 404**

Hear about EION's TrustLink technology that provides interference-free communications for the delivery of broadband multimedia services.

## **Elsevier**

### **Booth 203**

Pick up free journal sample copies and learn about our online specials such as Computer Network Journal.

## **EXFO**

### **Booth 208**

View the demo of our new product for high speed networks presented by the 100G team.

## **F5**

### **Booth 300**

Enter to win a Blackberry® PlayBook™ and pick up a stress ball.

## **IEEE GLOBECOM 2012**

### **Booth 406**

Pick up information about the conference and Southern California.

## **IEEE GLOBECOM 2013**

### **Booth 410**

Pick up a Call for Papers and Atlanta Peach Tree Connects Guide to get your city pass discount rate. Don't forget to take a Peach air freshener!

## **IEEE GLOBECOM 2014**

### **Booth 405**

Get your light up guitar pin and literature about Austin, Texas.

## **IEEE ICC 2013**

### **Booth 413**

Grab a fridge magnet and Call for Papers highlighting the September 16, 2012 paper submission deadline.

## **The Institute of Electronics, Information and Communication Engineers (IEICE)**

### **Booth 408**

Take free journals, Japanese hand towels and unique origami.

## **National Instruments**

### **Booth 209**

Get information on prototyping wireless communication systems, which includes reference design, research examples and education curriculum using software defined radio.

## **Niksun**

### **Booth 210**

"Know the Unknown" ... learn more about IT Forensics and cybersecurity.

## **Optelian**

### **Booth 400**

Learn more about this international provider of optical transport systems.

## **Parliant**

### **Booth 412**

Meet the group that supplied the Conference Companion for the conference.

## **Research In Motion (RIM)**

### **Booth 100**

Stop by with your Blackberry® PlayBook™ tablet questions.

## **Springer**

### **Booth 211**

Pick up free journals and get 20% off all books through July.

## **Subex**

### **Booth 207**

Check out presentations and learn about ROCware Capacity Management.

## **TE Connectivity**

### **Booth 204**

Enter for a chance to win a Kindle Fire. Don't have to be present to win.

## **TELUS**

### **Booth 104**

Sit down and relax ... and learn more about how TELUS is involved in the health care market as well as career opportunities

## **University of Ottawa**

### **Booth 110**

Pick up brochures about one of Canada's leading teaching and research-intensive universities.

## **Wiley**

### **Booth 101**

Get 20% off on all books...always looking to speak with potential authors.

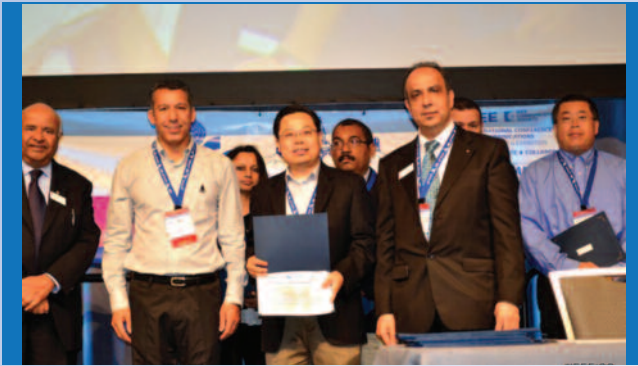
## **Women In Engineering (Wie)**

### **Booth 402**

Take a pen, candy and information on women in engineering programs.



# awards



## IEEE ICC 2012 Announced Best Paper Awards

The awards ceremonies at IEEE ICC 2012 continued this morning when honors were presented to this year's Best Paper Award winners by the Technical Program Chair Hussein Mouftah, ComSoc Vice President of Conference Abbas Jamalipour and ComSoc President Vijay Bhargava. Cited for their contributions prior to the day's keynotes in the Canada Hall of the Ottawa Convention Center were:

**Ryogo Kubo, Masashi Tadokoro, Hiroko Nomura, Hirotaka Ujikawa, Susumu Nishihara, Ken-Ichi Suzuki and Naoto Yoshimoto** of the NTT in Japan for their entry titled *"Bandwidth Scheduling Techniques in TDM-PON Supporting Inter-ONU Communication with Network Coding for Smart Grid Applications"*

**Hamid Reza Feyzmohdavian, Mikael Johansson and Themistoklis Charalambous** of the Royal Institute of Technology (KTH) in Sweden for *"Contractive Interference Functions and Rates of Convergence of Distributed Power Control Laws"*

**Gubong Lim and Len Cimini** of the University of Delaware, USA for their paper on *"Energy Efficiency of Cooperative Beamforming in Wireless Ad-Hoc Networks"*

**Zhendong Zhou and Branka Vucetic** of the University of Sydney, Australia for the contribution titled *"An Iterative Beamforming Optimization Algorithm for Generalized MIMO Y Channels"*

**Tarik Taleb** of NEC Europe Ltd., Germany and **Adlen Ksentini** of the University of Rennes 1/IRISA Lab, France for the paper on *"QoS/QoE Predictions-based Admission Control for Femto Communications"*

**Dejun Yang, Xi Fang and Guoliang Xue** for *"Truthful Auction for Cooperative Communications with Revenue Maximization"*

**Madushanka Soysa** of the University of California San Diego, USA and **Chintha Tellambura and Yamuna Dhungana** of the University of Alberta, Canada for their entry *"Uniform approximations for wireless performance in fading, noise and interference"*

**Jean-Yves Chouinard** of Laval University, Canada and **Weikun Hou and Xianbin Wang** of the University of Western Ontario, Canada for *"Physical Layer Authentication in OFDM Systems Based on Hypothesis Testing of CFO Estimates"*

**Luying Zhou, Zhaowen Xu, Xiaofei Cheng, Yong-Kee Yeo, Xu Shao and Qirui Huang** of the Institute for Infocomm Research, Singapore for their paper on *"A Dynamic Wavelength Resource Allocation Capable Passive Optical Network with Shared Transceivers"*

**Shivashis Saha, Jitender Singh Deogun and Lisong Xu** of the University of Nebraska-Lincoln, USA for *"HyScale: A Hybrid Optical Network based Scalable, Switch-centric Architecture for Data Centers"*

**Iana Siomina** of Ericsson, Sweden and **Di Yuan** of the Linköping University, Sweden for their entry on *"Load balancing in heterogeneous LTE: Range optimization via cell offset and load-coupling characterization"*

**Weihua Zhuang** of the University of Waterloo, Canada and **Shaohe Lv, Xiaodong Wang, Xiaofeng Hu, Chi Liu, Yipin Sun and XingMing Zhou** of the National University of Defense Technology, China for *"A Performance Study of CSMA in Wireless Networks with Successive Interference Cancellation"*

**Najah A. Abu Ali** of UAEU, UAE and **Abd-Elhamid M. Taha** of Alfaisal University, Saudi Arabia for *"An MDP-based Model for Optimal Relay Selection in OFDMA Cooperative Networks"*

**Min Chen** of Seoul National University, Korea and **Liang Zhou, Baoyu Zheng and JingWu Cui** of Nanjing University of Posts and Telecommunications, China for *"Green Multimedia Communications over Internet of Things"*

**Rahman Doost-Mohammady and Kaushik Chowdhury** of Northeastern University, USA for their paper titled *"Enhancing Wireless Medical Telemetry through Dynamic Spect"*

**Qi Chai and Guang Gong** of the University of Waterloo, Canada for *"Verifiable Symmetric Searchable Encryption For Semi-honest-but-curious Cloud Servers"*