CONNECT • COMMUNICATE • COLLABORATE



IEEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS

ON COMMUNICATIONS
INDUSTRY FORUM & EXHIBITION





Welcome to IEEE ICC 2012 and IEEE Week!

Ottawa Mayor Jim Watson has proclaimed June 10-15, 2012 as IEEE Week to coincide with the IEEE International Conference on Communications (ICC 2012). IEEE ICC 2012 will host over 2,500 industry professionals, scientists, academics and government officials, who will attend nearly 1,500 presentations highlighting the entire range of communications technologies, while touring Canada's beautiful capital city and participating in wide-ranging local festivities.

"Ottawa offers the perfect venue for celebrating IEEE ComSoc's 60th anniversary and exploring the newest advances in communications technology research." says the IEEE ICC 2012 General

Chair Ibrahim Gedeon, CTO, TELUS. "The City's history of innovation and accomplishment will certainly provide the ideal motivation for inspiring the development and implementation of the next wave of global interactive applications that will cross every demographic, time zone and geographic boundary."

Pre Registration Pre Registration

During the course of the six-day, premier global event, IEEE ICC 2012 will feature a full agenda of keynotes, panel discussions and technical symposia offered by leading industry experts representing nearly every field of communications. Full program information can be accessed through your BlackBerry[®] PlayBook ™ or online at www.icc2012.ca/pb using your email address and last 6 digits of your registration confirmation number.

Happening Today at IEEE ICC 2012

08:00 - 12:30 **Tutorials** T01: Signal Waveform Design for Underwater Acoustic Communications / 204/2F **T02:** Application Architectures for Machine to Machine Communications / 206/2F T03: Recent Advances in Wireless Sensor Networks / 2012/F Workshops M1: AMN: Advances in Mobile Networking / 105/1F M10: MONACom: Molecular and Nanoscale Communications / 106/1F 08:00 - 17:00Workshops SI1: Humanitarian Communication Applications / 103/1F

08:00 - 18:00 Workshops

M4: WIVN: Intelligent Vehicular Networking / 104/1F

M5: CloudNetsDC: Clouds, Networks and Data Centers / 203/2F

M6: GreeNet: Cognitive Radio and Cooperation for Green Networking / 211/2F

M7: CONWIRE: Convergence among Heterogeneous Wireless Systems in Future Internet / 209/2F

M8: Netsurviv: New Trends in Optical Networks Survivability / 212/2F

M9: U-Net: User-Centric Networking / 107/1F

M11: CoCoNet4: Cooperative and Cognitive Mobile Networks / 108/1F M12: E2Nets: Energy Efficiency in

Wireless Networks & Wireless Networks for Energy Efficiency / 210/2F

M13: FutureNet V: Network of the Future / 208/2F

M14: SCPA: Smart Communication Protocols and Algorithms / 213/2F M15: SaCoNet-III: Smart

Communications in Network Technologies / 202/2F **SM1:** Standards:

Telecommunications / 102/1F

14:00 - 18:00

Lunch

(Tutorial & Workshop Attendees Only) Foyer/2F

14:00 - 18:00

Tutorials

T04: 60 GHz Wireless

Communication / 206/2/F

T05: Content Streaming for Mobile

Environments / 204/2F

T06: Radio Resource Management in Femtocell Network / 201/2F

Workshops

M3: Storage: Emerging Data Storage Technologies / 105/1F

19:00 - 21:30

Conference & Exhibition Opening

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

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- To access the IEEE ICC 2012 App on your smartphone or computer, go to www.icc2012.ca/pb and use your email address for your username and the last 6 digits of your registration confirmation number as your password.
- View of the day's events by clicking on the "What's On" icon.
- Connect-Communicate to Collaborate with other participants using the "People" feature.
- Symposia papers, and if privileged, Tutorials and Workshops are downloadable for up to one year through the "Search" and "Program" features. Once you find the paper, click on it to download.
- Learn more about benefits and services of ComSoc, IEEE and the Ottawa Section by clicking on the "IEEE / ComSoc" icon.
- For onsite assistance, Tech Stations are located in the registration area near the Speaker Ready Area (L1 Colonel By Fover).
- Email questions or problems with the Paperless+™ application to paperlessplus@icc2012.ca.



Many savings are available at participating restaurants and other venues by showing your conference badge. Your badge entitles you and a guest to a discounted visit to the attractions, tours, restaurants and hospitality. For more information, visit www.ieee-icc.org/2012/visit 36 3091814988.pdf.

VIA Rail is offering 10% discount on all of its ground transportation train services for conference participants from June 2 to June 23, 2012 throughout the VIA system to Ottawa, Ontario and return. Participants must reference the event's VIA confirmation number: 12239. To purchase, go to www.viarail.ca and log in to your profile or create one prior to booking. On the Passenger information screen, select "Convention fare" from the "Discount Type" drop-down menu and enter the discount code 12239 in the "Discount code" field. The conference fare will be shown on the next page.



The conference will offer numerous keynotes, panels and technical presentations exploring nearly every area of wireless networking and communications. The following are a few noteworthy events to add to your conference schedule:

- · Monday evening Welcome Reception, which not only feature remarks from Ottawa Mayor Tom Watson, but launch the Exhibition of Innovation, which will display the products and services of leading international corporations, publishers as well as feature academic institutions, future ComSoc conferences and IEEE entities.
- Tuesday morning opening keynote addresses of Eros Spadotto, Executive Vice President, Technology Strategy at TELUS, and Ian F. Akvildiz of the Georgia Institute of Technology, who will speak on the "Fundamentals of Molecular Nano-Communication Networks."
- Tuesday evening "Dialogue with Industry Leaders on Breaking Barriers to Innovation" hosted by Amanda Lang of The National and co-host of the Lang & O'Leary Exchange featuring a discussion with IEEE ICC 2012 General Chair Ibrahim Gedeon of TELUS, Adam Drobot of Open TechWorks, Vish Nandal of Ericsson, Mike Hill of IBM, Wen Tong and Matt Bross of Huawei.
- Wednesday morning keynote of Matt Bross, CTO & Vice Chairman, Huawei.
- Comments of industry plenary speakers Mike Hill, VP Enterprise Initiatives, IBM on Wednesday and Lucy Hood, Executive Director, Communication Technology Management on Thursday.
- Technical plenary presentations of H. Vincent Poor of Princeton University will discuss "Fundamental Limits on Information Security and Privacy" and P. R. Kumar of Texas A&M University will address "The Coming Era of Cyber-Physical Systems" on Wednesday as well as Raj Jain of Washington University, St-Louis 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" on Thursday.
- Best Paper Awards Ceremony will follow the Wednesday morning keynote and plenary session.

More information on these events, such as time and location, can be found on the "Program" feature of the App.



RESTAURANTS (reservations required)

As one of Ontario's designated culinary tourism destinations, the city, its restaurants and its local food producers are all working together to bring locally-grown and prepared foods to tables across the region through an initiative called Sayour Ottawa.

Mambo Nuevo Latino

77 Clarence Street, Ottawa 613.562.2500

www.mambonuevolatino.com

Taking inspiration from the fiery and aromatic cuisine of Central and South America, MAMBO is big flavors, samba & salsa music, mojitos & caipirinhas and a wide array of tasty tapas.

Stella Osteria

81 Clarence Street, Ottawa 613.241.2200

www.stellaosteria.com

Tucked into the heart of Ottawa's bustling ByWard Market, Stella Osteria offers a blend of modern Italian cuisine and traditional favorites. Draped in a stylish atmosphere and surrounded by a feel of contemporary Italian elegance.

Blue Cactus Bar and Grill

2 ByWard Market Square, Ottawa 613.241.7061

www.bluecactusbarandgrill.com

At home in the ByWard Market, Blue Cactus Bar and Grill offers the right blend of a modern uptown atmosphere with contemporary cuisine.

Luxe Bistro

47 York Street, Ottawa

613.241.8805

www.luxebistro.com

Luxe Bistro is the perfect blend of steakhouse and French-style bistro located in the ByWard Market. The menu specializes in fresh ingredients including sustainable seafood and organic ingredients. Our steakhouse menu ensures the most flavorful, juicy and tender steaks. Award winning wine menu.

Lone Star Texas Grill

128 George Street, Ottawa

613.562.9865

www.lonestartexasgrill.com

Lone Star Texas Grill has been servin' up the kind of down-home cookin' loved all over. We use only the freshest ingredients and just the right spices to give our food that real Tex-Mex flavor.

Santé Restaurant and Art Gallery

45 Rideau Street, Ottawa

613.241.7113

www.santerestaurant.com

Cosmopolitan yet casual. Santé does it with panache – offering fine wines and "globally inspired" cuisine in a comfortably elegant setting. Diners rave over the loft-like windows overlooking the Rideau and Sussex streetscapes while monthly curated art exhibits give Santé a new look with every visit.

MUSEUMS

Ottawa museums invite visitors to experience the best of Canada all in one place.

National Gallery of Canada

380 Sussex Drive, Ottawa

613.990.1985 • 1.800.319.2787 toll free

www.gallery.ca

The National Gallery of Canada is home to the world's largest collection of Canadian art. Art comes to life in its spacious galleries, interior courtyards, and the beautiful Rideau Chapel.

Canadian War Museum

1 Vimy Place, Ottawa

819.776.7000 • 1.800.555.5621 toll free

www.warmuseum.ca

The Canadian War Museum offers an exciting journey through the personal, national and international military history in Canada.

Canadian Museum of Nature

240 McLeod Street, Ottawa

613.566.4700 • 1.800.263.4433 toll free

www.nature.ca

Explore, in a 100-year old "castle," modern world-class galleries, featuring spectacular exhibits of dinosaurs, mammals, birds, minerals and water. Don't miss the 3D movie!

Canadian Museum of Civilization

100 Laurier Street, Gatineau

819.776.7000

www.civilization.ca

Explore 1000 years of Canadian history, discover a traditional aboriginal village and take in our impressive collection of totem poles. Only 5 minutes from downtown Ottawa.

For more restaurants, museums and other attractions, visit www.ottawatourism.ca.

(Courtesy of Ottawa Tourism)



IEEE ICC 2012 Opens with "Workshop on Telecommunications: From Research to Standards"

IEEE ICC 2012 opened Sunday morning with the highly-anticipated "Workshop on Telecommunications: From Research to Standards." Due to the record number of submissions, this international forum was expanded to two full days, Sunday through Monday, for the first time to accommodate 30 keynotes and technical presentations designed specifically to "bridge the gap" between researchers, scientists, and telecommunications standards experts. Developed to make both academia and industry more aware of each other's challenges, this forum, which was attended by scores of professionals, detailed the latest telecommunications methodologies, models, technologies, systems, tools, applications, works in progress and experiences.

In the opening address, Dr. Shigeyuki Akiba, of KDDI R&D Labs Inc. and Tokyo Institute of Technology, spoke on the "Era of Multi-Networks, Multi-Services & Many



Standards." During his remarks, Dr. Shigeyuki addressed the high reliability and security issues involved with expanding human-to-human and M2M services to seven billion people, who are already using nearly seven trillion communications devices and sensors. Among his recommendations for continuing the evolution of converged services offering higher bit rates, advanced cellular systems and expanded broadband access beyond 3D was the continued development of standard excellent technologies supported by extensive validation and backward compatibility in realistic scenarios.

Afterwards, Dr. Stephen Bush of GE Global Research and Dr. Andrew Eckford of York University in Toronto addressed "Standards and innovation in emerging technologies: Why industry and academia need each other?" Dr. Bush began the talk by urging the rethinking of standards and the role they can serve in overcoming the "thin film of separation between industry and academia" in addition to the creation of more effective procedures, processes, services and ideas. He suggested approaching innovation as entrepreneurs with an eye towards "applying standards that go from mountains of paper to industry and rapidly into products."

Sharing the session with Dr. Bush was then Dr. Eckford, who spoke on "Standards & Innovation in Emerging Technology." Citing the large-scale interdisciplinary efforts of the IEEE 1906.1 Working Group on Nanonetworking Standardization Activities to promote the area and standardize its language and methods, he stressed the need to "look for inspiration from nature" and collaborate across all fields to eliminate rivalries and develop serious concepts that reduce investment risks. In the case of nanotechnology, this could soon mean using microscopic devices that communicate on an electro-magnetic level to collectively attack cancerous tumors or even repair damaged ligaments.

Following a brief intermission, Dr. Tarik Taleb, the conference's TCP co-chair from NEC, thanked all the session's attendees for making this introductory workshop so successful, while promising to extend the academia and industry collaboration discussion into IEEE ICC 2013 to be held from June 9 - 13 in Budapest, Hungary. Rounding out the session were the presentations of several other leading communications authorities, who explored topics such as "Towards Flat Distributed Mobility Management: A 3GPP Evolved Network Design," "Speeding Up the IPv6 Transition" and the "Furthering of Independent Mechanisms" and the benefits of exploiting well-established standards for use in other areas.