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36th International Communications Energy Conference

Resilient Communications Energy for our Connected World

In 2014, the 36th annual INTELEC conference is being held September 28 - October 2 in the Vancouver Convention Center in Vancouver. This year's program will focus on communication power systems, energy storage, power conversion equipment and site support. From batteries to power supplies, disaster recovery to renewable energy, INTELEC 2014 is the place to see where the industry is

heading, what new products are being introduced and will be the place to personally interact with the key suppliers and decision makers in the industry.

A compelling technical program, expansive trade show as well as daily key note presentations and workshops from industry leaders will propel this event to the top of the must do this in 2014.

CALL FOR PAPERS

Please note the following deadlines

Last date for submitting the abstracts: March 14, 2014

Notifications of the accepted papers: May 2, 2014

Last date for submitting manuscripts of the final papers: June 16, 2014

www.intelec2014.org



Ricardo Reis
Instituto de Informatica

Trends on micro and nano electronics

The talk starts with a short presentation of Electronics and Microelectronics evolution. Then it will be presented a set of several trends in the design of micro and nanoelectronics circuits, including architectural issues, variability and sources of variability, EDA tools, physical design issues, printability, design of transistor networks, Layout Strategies, Regularity, 3D circuits, flexible electronics, new devices, Stretchable Silicon, Fault Tolerance, Tolerance to Radiation Effects, Factory Integration, ... The talk try to motivate the audience to explore the upcoming challenges in the field.

Distinguished Lecturer

Monday 14 April
3:00 pm to 4:30 pm

Rm 418 - MacLeod Bldg
2356 Main Mall, UBC

Light refreshments will be served. Open to public.

Please register so we may more accurately estimate room size & refreshments

Information

Circuits and Systems
Chair Ljiljana Trajkovic
ljilja@cs.sfu.ca

Speaker: EE from the Federal University of Rio Grande do Sul (UFRGS), Porto Alegre, Brazil, 1978. PhD from Polytechnic Institute of Grenoble (INPG), France, January 1983. Full Professor at UFRGS (since 1979). Head of the Microelectronics Committee of Brazilian National Science Foundation (CNPq). Research 1A (top level) of the CNPq. Research interests: Physical Design Automation, EDA, Radia-

tion Hardened Circuits, VLSI Design and Microelectronics Education. More than 400 hundred papers in journals/conferences. Fapergs Award as research of the year 2002 (Science Foundation). Silver Core Award from IFIP. Chair of IFIP Technical Committee 10. Professor at UFRGS Microelectronics and Computer Science Graduate Programs. Former head of the Microelectronics Graduate Program and Computer Science Graduate Program at UFRGS. Head of several research projects. General or Program Chair of several international conferences. Past President of the Brazilian Computer Society and Past VP of the Brazilian Microelectronics Society. CASS Chapter Rio Rio Grande do Sul Chair (since 2007). The Chapter won 2 Chapter of the Year Award (2011/2012) and Chapter of The Year R9 2013. VP of IEEE CASS representing R9, 2008 to 2011. IEEE Design & Test Editorial Board Member. Member of the Steering Committee of several conferences: VLSISoC, ICECS, LASCAS, NEWCAS, CASS R9School, IEEEISVLSI, SBCCI, IBERCHIP. Senior member IEEE.



At the last Admission and Advancement Committee meeting in February 2014 the following IEEE Vancouver members were elevated to Senior Member grade:

**Ahmed Hussein
Faheem Ahmed**

Planning and operation of wind generation in BC Hydro and in the western interconnection



Clement Ma
BC Hydro

BC Hydro developed a wind generation portfolio of 487 MW in the last 4 years. It will grow to 789 MW by 2016. By comparison, our neighbour to the south, Bonneville Power Administration has wind capacity of roughly 5,000 MW now and projected to reach 6,000 MW by 2016. Wind generation offers zero fuel cost but the intermittent nature of wind must be balanced with dispatchable generation resources from hydro or thermal power to serve loads and facilitate energy trading. Over the last decade, the maturing wind industry in the Western Interconnection provides both challenges and opportunities for BC Hydro. This presentation introduces the fundamentals of wind power and wind turbines, and the evolution of wind generation globally with a focus on North American developments, followed by exploring BC Hydro's recent work on integration of wind generation into its existing systems of hydroelectric power. The current short-term planning and real-time operation of BC's wind plants will be reviewed.

Speaker: Clement Ma, P.Eng holds the position of Manager, Planning, Scheduling and Operations (PSOSE) in Generation Resource Management. His PSOSE team is responsible for the short-term planning and 24X7 real-time operation of BC Hydro's generation resources, including output from 83 Independent Power Producers. The operational focus of the PSOSE team is to maximize the value of available resources through optimization of hydroelectric operations and electricity trading by Powerex in the

WECC, while meeting domestic load requirements, environmental and social goals. Clement joined BC Hydro in 1981. During his tenure, he has worked as a Design Engineer in Hydroelectric Engineering, Maintenance Engineer and Production Supervisor at Mica and Revelstoke, and Operations Planning Engineer at the Burnaby Mountain System Control Centre, prior to the separation of Transmission and Generation due to the electricity market reform and open-access transmission. Clement received his B.S.E. and M.S.E. degrees in Mechanical Engineering from the University of Michigan at Ann Arbor.

Speaker: Brian Samson, P.Eng joined BC Hydro in 2001 as a Hydrology Applications Engineer in Generation Resource Management. He is currently a Senior Engineer of the PSOSE team. He has technical expertise in hydrology, load forecasting and operation of wind generation, of which he is responsible for the development of the operations tools currently in use. In his previous careers, Brian taught hydraulics and hydrology at BCIT, and worked as a Project Engineer and Hydraulic Specialist at BC Environment. More recently before joining BC Hydro, Brian was Project Manager at Sigma Engineering Ltd., a water resources and energy consulting company. Brian received his B.A.Sc. and M.A.Sc. degrees in Civil Engineering from the University of British Columbia, and an MBA from the Ivy School of Business at the University of Western Ontario

Wednesday 23 April
12:00 Noon - 1:00 PM

BC Hydro: Edmonds A01
Centre Room Auditorium

Information

Joint Power & Energy Chair
Rama Vinnakota
Rama.Vinnakota@bchydro.com



ieee vancouver agm

saturday
29 march

5:45 reception
6:00 poster contest
6:30 business
7:15 dinner
8:15 keynote
9:00 raffle



crystal ballroom
6083 mckay avenue
burnaby bc

Leonardo del Castillo – Microsoft
Insight into the Xbox One

admission
before / after 04 march
member 25 / 30
non member 35 / 40
life member 20 / 20
life fellow 10 / 20
student 25 / 30

registration

<http://bit.ly/1oscrhu> https://meetings.vtools.ieee.org/meeting_view/list_meeting/23261

As the General Manager of Xbox Devices, Leonardo Del Castillo leads a development team comprised of over 250 program managers and engineers spanning many disciplines, including electrical, mechanical, thermal, optical, audio, and firmware engineering. His team is responsible for the development of Xbox 360 and Xbox One game consoles, interactive devices including the revolutionary Kinect sensors, world-class

game pads, and headsets. He was a founding member of the Xbox hardware development team at its inception in 1999 and has served in roles ranging from Electrical Design Engineer, Engineering Manager, Hardware Development Manager, and General Manager. His Bachelor of Science in Electrical Engineering is from California Polytechnic Institute, Pomona.

Multimedia team volunteers needed

IEEE Vancouver has an ambitious plan to create multimedia content for our members and the community. Our multimedia team provides audio and video recording, editing and post processing multimedia services.

If you are interested in multimedia production this is an opportunity to gain some new practical skills and volunteer for IEEE Vancouver.

Specific duties will include:

- video/audio recording of IEEE Vancouver presentations
- setting up and facilitating webcasts
- video/audio editing and post processing
- investigating/planning for web based media delivery
- tools and maintenance of multimedia equipment
- training, workshops and collaboration with others in the field

Related experience and skills are welcome along with a high interest in volunteering for IEEE Vancouver. Training will be provided to grow new skills, tackle challenges, and take on responsibilities. Please contact Communications Committee chair Pieter Botman at <p.botman at ieee.org>

Dr. Nick Chng
Piotr Dubrowski
BC Cancer Agency

Monday 31 March

2:30 P.M.

Library Building
5-174

University of Northern BC
3333 University Way
Prince George BC
www.unbc.ca

Information

Matt Reid
IEEE UNBC Chair
mreid@unbc.ca

Physics in radiation oncology: Imaging and therapy

Medical Physics is the study of the applications of physics to medicine. This includes health physics and radiation protection, imaging, and radiation oncology physics. This aim of this lecture is to introduce you to the profession, and some of the basic the principles behind the medical uses of ionizing radiation. We'll talk about radiation dosimetry and treatment planning, two of the main clinical responsibilities of medical physicist supporting radiotherapy treatments. The validation and implementation of new treatment techniques is also an important part of the role. Recently we've been working on a system to produce 3D printed facial moulds so that treatment accessories can be customized with minimal discomfort to the patient. We'll describe the process, and time-permitting, survey other interesting topics of research in the field.

Speaker: Dr. Nick Chng first became interested in Medical Physics as an Engineering undergraduate at Queen's University, as a result of a homework assign-

ment on CT image reconstruction. This lead to graduate work in radiation oncology physics at Queen's and UBC, where he finished his PhD in 2012. After a two-year residency in Vancouver, he joined the team at the BC Cancer Agency's Centre for the North in downtown Prince George. He's a big fan of Otway, the NSC, and trail system around UNBC. So far he's managed to avoid buying a truck, but maybe 2014 is the year. and Piotr Dubrowski is a BC trained medical physicist currently working in Prince George's newly opened Centre for the North. After switching from a University of Guelph Pre-Veterinary program to Physics because it was 'easier', Piotr pursued graduate work at UBC combining biomedical optics and cancer genetics. The clinical role of physicists in radiation oncology inspired Piotr to complete a residency program at the BCCA and he has been working with the Agency since 2011. Piotr has enjoyed his time in Prince George mountain biking, canoeing, fishing, various winter sports and even shooting a shotgun for the first time with no formal safety training.



“Humanitarian advancement through technology”

June 1-4, 2014, Montreal, Canada
OMNI Hotel, Mont-Royal, Montreal

Cosponsored by: IEEE Canada, Montreal Section, Ottawa Section, Toronto Section, Vancouver Section, Northern Canada Section, and Newfoundland and Labrador Section



Call for Papers

The 2014 IEEE International Humanitarian Technology Conference (IHTC) will be held in Montreal, Canada from June 1-4, 2014. The conference will focus on humanitarian applications of technology in the general areas of technologies for improving the lives of underserved peoples (including aboriginal/indigenous peoples), technologies for the disabled, health-related technologies, humanitarian engineering educational programs, and technologies to assist in disaster situations. The conference will feature outstanding keynote speakers, workshops, a student paper competition and peer-reviewed papers. Technology-oriented papers and papers describing social and economic factors related to humanitarian technology implementation are welcome for the conference.

The technical program committee for the 2014 IEEE IHTC invites you to submit a 200-300 word abstract of a paper in any of the following track areas:

1. Mobile Health (mHealth), Medical Technology, and Telemedicine
2. Operations, supply chain and logistics in humanitarian aid and disaster response
3. Water and Agricultural Technologies
4. Off-grid Power, Renewable Energy and Resilient Power Grids
5. Connectivity and Communications Technologies
6. Humanitarian and/or Sustainable Engineering Programs, Educational Technologies, Course Materials, and Curricula
7. Data and Personal Security Technologies for Humanitarian Applications
8. Underwater Wireless Communications for Humanitarian Applications
9. Underwater Robotics for Humanitarian Applications
10. Community Engagement and Social and Economic Factors in Humanitarian Engineering

Paper Submission

The format of the paper should follow the IEEE conference papers style. IHTC 2014 will only accept the electronic submission of a full paper in English with maximum six pages on line by uploading the PDF-format file to <http://www.bytematters.com/veda/ihtc.aspx>. Detailed information on paper format and submission procedure can be found on the conference website. IHTC 2014 proceedings are included in IEEE Xplore.

Technical Co-Chairs Contacts at Emails:
pripal.singh@villanova.edu
and mohamad.sawan@polymtl.ca

Important Dates

Deadline for Abstract Submission January 20, 2014
Notification of Abstract Acceptance January 31, 2014
4-page IEEE format Full Paper Due February 28, 2014
Reviewer's Feedback to Authors March 31, 2014
Camera-Ready Papers and Copyright Forms Due April 30, 2014

Exhibitions

There will be an exhibition site at the conference. Companies and institutions who are interested are encouraged to contact the exhibition chair for further information.

For more information on IHTC'2014, please contact: Ferial El-Hawary, General Chair c/o Dept of Electrical and Computer Engineering, Dalhousie University Halifax, NS, Canada B3H 4R2
Tel: +1(902) 494-3911 Fax: +1(902) 422-7535
E-mail: F.El-Hawary@ieee.org

For detailed up-to-date information, visit the IHTC2014 Conference
Web site: www.ihtc.ieee.ca



2014 IEEE 15th International Conference on High Performance Switching & Routing Vancouver, British Columbia, July 1 to July 4, 2014

Vancouver is world renowned for its diversity of many cultures and ethnicities. It is an ideal place for scientists and engineers from around the world to gather and share their ideas.

With the unprecedented growth of the Internet as a backbone for communications and information services, it is essential that researchers gather to share their ideas and progress on solving the future challenges that the Internet faces. They include bridging the digital-divide and providing advantages of the Internet to developing

countries; handling the bandwidth and delay requirements of multimedia, P2P, and cloud computing applications; implementing IPv6 and migrating from IPv4; deploying large datacenters and enhancing their switching capabilities; and achieving energy efficiency of switching and routing equipment.

These are only a few of the topics that have demanded switching and routing capabilities that are more intelligent, efficient, and reliable than ever before.

IEEE HPSR 2014 will address the following topics

- Architectures of high-performance switches and routers
- High-speed packet processors
- Address lookup algorithms
- Packet classification, scheduling, and dropping
- Switching, bridging, and routing protocols
- Latency and buffer control
- Multicasting
- P2P routing
- Routing in wireless, mobile and sensor networks
- Optical switching and routing
- Switching, bridging, and routing in data centers and clouds
- Software defined networking
- Data placement and migration
- Multiprocessor networks
- Network management
- Pricing, accounting, and charging
- QoS and scalability of switching, bridging, and routing
- Traffic characterization and engineering
- Power-aware switching, bridging, and routing protocols
- High-speed network security

IMPORTANT DATES (extended deadlines)

Acceptance notifications: April 6, 2014

Camera-ready due: May 4, 2014

General Chairs: Ljiljana Trajkovic (Simon Fraser University), Andrzej Jajszczyk (AGH University of Science and Technology)
<http://www.ieee-hpsr.org/>

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24 April 2014

25 April 2014

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WORLD-LEADING INDUSTRY & ACADEMIC KEYNOTE SPEAKERS



24 April 2014

Andrew Winston Author, Green to Gold

Andrew Winston is a globally recognized expert and speaker on viable sustainability. Andrew is the author of "Green Recovery" and co-author of the international best-seller "Green to Gold".



Daniel Obodovski
Author,
The Silent Intelligence

25 April 2014



John Robinson
Associate Provost, UBC

25 April 2014



Ibrahim Gedeon
CTO, TELUS

25 April 2014



Sadhu Johnson
Deputy Manager,
Vancouver

25 April 2014

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WALL

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