



WWW.IEECONTACT.ORG

MAY 2014
CIRCULATION 3222

VOLUME 45
NUMBER 05 • 2014 IEEE 15th International Conference on HPSR

- Honeywell’s control technologies for papermaking
- Summer school on signal processing
- BC Hydro’s 2013 integrated resource plan
- IEEE Vancouver AGM Saturday 29 March 2014 highlights
- IEEE Canada IHTC 2014 call for papers



IEEE prohibits discrimination, harassment and bullying.
Info: <http://www.ieee.org/web/aboutus/whatis/policies/p9-26.html>



Michael G. Forbes

Honeywell’s control technologies for papermaking

Honeywell is a Fortune 100 company that invents and manufactures technologies to address some of the world’s toughest challenges linked to global macrotrends such as energy efficiency, clean energy generation, safety and security, globalization and customer productivity. Honeywell employs approximately 132,000 employees worldwide, of which more than 22,000 are engineers and scientists.

This talk will discuss approaches to overcoming these control challenges from the perspective of a leading global industrial technology supplier.

Speaker: Michael G. Forbes, Ph.D., P.Eng. received his B.Sc. degree in the Process Control option of the Mathematics and Engineering program at Queen’s University in 1998 and his Ph.D. in Process Control from the University of Alberta in 2003. In 2005 he joined Universal Dynamics, now ANDRITZ Automation, in Vancouver. Michael spent five years with Universal Dynamics working in an applications engineering role in which time he commissioned over 20 advanced control solutions for processes such as mineral processing, plastics manufacturing, and pulp production. In 2010 Michael moved to Honeywell Process Solutions to take the position of Control Research Engineer. Since joining Honeywell, he has worked on advanced solutions for paper machine controls. He is a registered professional engineer in B.C. Canada.

At Honeywell’s Vancouver Center of Excellence, over 150 people, including 60 scientists and engineers with advanced degrees, are employed in R&D, sales, and manufacturing of software and hardware products for the pulp and paper, and automotive industries. Paper machine control has a unique set of challenges: relatively long and variable process time delays, hundreds of measurements and actuators, and both machine direction (temporal dynamics) and cross direction (spatial dynamics) components.

Tuesday 20 May
12 noon
Room 202 (CHBE)
2360 East Mall

Sponsored by the joint chapters of IEEE Control Systems, Robotics and Automation, and Systems, Man and Cybernetics societies



Information
CS/RA/SMC
Joint chapter Chair
Ryozo Nagamune
nagamune@mech.ubc.ca





IEEE Signal Processing Society

Summer school on signal processing and machine learning for big data

Call for Participation

The University of British Columbia, Vancouver, BC, Canada

July 29 - August 1, 2014

MOTIVATION AND DESCRIPTION Humans, machines and sensors collectively generate an enormous amount of data on a daily basis. The fact that much of this data is now accessible provides an opportunity to explore, analyze and extract previously unavailable and potentially highly useful information. In many cases, the volume and speed of data generation makes traditional centralized data analysis infeasible. The lack of structure, and the amount of noise and outliers emphasize the need for robust processing across heterogeneous data domains. High dimensionality makes it challenging to visualise and interpret the data. Overall, Big Data

analysis presents many challenges and opportunities for current and future signal processing professionals. This Summer School is intended to provide an introduction to the current efforts to explore Big Data from a signal processing perspective. Topics will range from foundations for Big Data analysis and processing (robust statistical methods, sparse representations, numerical linear algebra, machine learning, convergence and complexity analysis) to Big Data applications (social networks, behavior and language analysis, bioinformatics, smart grid, environmental monitoring, and others)

IMPORTANT DATES

Registration deadline: July 15, 2014
School dates: July 29 - August 1, 2014

The School will take place at the University of British Columbia, Vancouver campus.

<https://sites.google.com/site/s3pbigdata2014/>

	Students	Others	Single day
	Full	Full	
IEEE SPS Member	\$50	\$300	\$100
IEEE Member	\$200	\$500	\$200
Non-Member	\$400	\$800	\$500

REGISTRATION Registration fees are listed in Canadian Dollars. Check the website for further information and application details.



Information

Signal Processing Chair
Ivan Bajic
ivan_bajic@ieee.org





Randy Reimann
BC Hydro

BC Hydro's 2013 integrated resource plan

An overview of the key issues and uncertainties that face BC Hydro and what actions are being taken now to ensure an adequate and secure supply of electricity for its customers.

Speaker: Randy Reimann holds the position of Director, Resource Planning for BC Hydro. He has held this position since 2005. He is responsible for the BC Hydro team and the external experts that develop BC Hydro's Integrated Resource Plan (IRP). He joined BC Hydro in 1993. Since that time, and in addition to his current position, he held the positions of Strategic Issues Manager responsible for representing electricity markets and transmission business

models in corporate restructuring work, including overseeing: the initial analysis and the development of the key agreements creating British Columbia Transmission Corporation (BCTC); and Sector Manager and Key Account Manager responsible for transmission voltage customers in the forestry, mining and services industries. Before this, Mr. Reimann spent four years with electrical engineering consultants in British Columbia working on power system studies, substation design and construction for large industrial customers (1989- 1992). Mr. Reimann began his career in Alberta working for ATCO Power (then Alberta Power Limited) from 1982 to 1989 working in the areas of generation planning and marketing.

Wednesday 21 May
Noon to 1:00 PM

BC Hydro - Edmonds A01
Southpoint Auditorium
6911 Southpoint Dr Bby

Information

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



IEEE Vancouver AGM Saturday 29 March 2014 highlights



Over 100 members, guests and friends gathered at the Vancouver Hilton Metrotown to receive the Section's business reports, to meet with colleagues, to enjoy a fine dinner, and to hear Leonardo Del Castillo, General Manager, Xbox devices, Microsoft, deliver an interesting and informative keynote talk on "Inside Xbox One Technology".

The evening began with the display of five IEEE student competing poster papers with their authors attending to viewer questions. The winning poster "Towards enabling ultrasound guidance in cervical cancer high-dose-rate brachytherapy" was by Adrian Wong, UBC

Formalities underway, Chair Steven McClain summarized the 2013 performance of 40 events with a net membership increase to over 2200, and highlighted the installation and unveiling of the IEEE Vancouver Centennial Monument (<http://vancouver.ieee.ca/Centennial>).

Awards: Outstanding large chapter: • Computing - Sathish Gopalakrishnan, Chair; • Outstanding small chapter: Circuits and Systems - Ljiljana Trajkovic, Chair; • Outstanding student branch: UBC - Adrian Wong, Past Chair; • Outstanding volunteer: Ron Heaps

Scholarships: • Kelvin Au, UBC - Hector J. McLeod Scholarship Award; • Charlton Berry, BCIT - Thurb Cushing Scholarship Award; • Brandon Born, UBC Okanagan - John Deane Scholarship Award. The scholarships are named in honour of three IEEE Vancouver life members and strong supporters of student members. For more info or to donate to the IEEE Vancouver scholarships, please visit: <http://www.ieeecanadianfoundation.org/EN/donations.php>

Newly elected IEEE Fellow Dr. Jian Pei of SFU was honored, and although unable to attend the AGM, spoke of his research interests via a taped video message.

2013 Chair Alon Newton's many years of service were recognized with the IEEE Vancouver Past Section Chair pin.

Sponsoring organizations / individuals were also recognized for their 2014 AGM support. • Telus / Mathew Wilder • UBC / Jose Marti • SFU / Rodney Vaughan • BCIT / Craig Cowan • Alpha Technologies / Peter Lim • APEGBC

Telus managers Winnie Lai Fong and Roger Lee were thanked for the supply of door prizes as was Microsoft's Leonardo Del Castillo for the donation of Xbox One products.

Bob Gill ended formal proceedings announcing that <http://vancouver.ieee.ca/AGM2014> will post AGM photos and videos, and that the site will also have a link to a survey seeking opinions about the AGM and how it might be improved.

“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/>