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- **Another inconvenient truth: snails are more intelligent**
- **“Meet and Learn” at CIGRE/IEEE/EPRI talks**

IEEE Kinect & Structure Vancouver  
**HACKATHON**  
Nov. 8th 9A.M. to Nov 9th 2P.M.

Register while there's still space at:  
<http://aka.ms/HackVancouver>

STRUCTURE SENSOR KINECT for Windows

BCIT 50 YEARS IEE VANCOUVER SECTION IEEE Vancouver Joint Computing Chapter

Sponsored By: occipital Microsoft

The poster features a central image of a human figure with a skeletal overlay and motion-capture markers, set against a background of a purple and blue waveform. The text is arranged in a clean, modern layout with various fonts and colors. Logos for BCIT, IEEE Vancouver, and Microsoft are included at the bottom.



Lee Vishloff  
Wireless consultant

## Your first wireless product: essential things you need to know

That all-in-one radio IC data sheet says “No RF experience required”. But is it true?

There are a host of things that one needs to understand when designing a wireless product. The most important of these is making (or keeping) the product legal to sell. Then comes performance. Poor wireless performance results in product support calls which will destroy profit margin and/or create many unhappy customers. In these days of high competition and social media poorly performing products are a sure way to a quick product death.

What is covered: This seminar will cover the essential things you need to address in order to create a high quality wireless product including:

1. Radio transmission basics
2. Selecting a wireless platform
3. Module cautions
4. Regulatory requirements
5. Destroying radio performance
6. Making your product testable

Who should attend: This seminar is relevant to:

- Designers new to wireless product development
- R&D team leaders and managers
- Product managers looking to add wireless capability to a product line
- Investors and budget managers in a company starting in wireless

Answer to question: Yes, if you don't care about transmit power, receive performance and regulatory approval.

**Speaker:** Mr. Vishloff is the principal engineer in a wireless consultancy working in the areas of cellular-based M2M solutions, short-range wireless products and EMC Consulting. He is a regular contributor to the IEEE Communications Society training program teaching several courses in Wireless Technology.

He has over 30 years of experience in wireless systems and product design. During his career he has designed a wide range of wireless products including satellite systems, terrestrial radio systems, short-range video, rural communications, aeronautical and others. Lee brings a wide range of practical experience with hands-on and management experience in wireless telecommunication systems, modem, RF, analog, digital, embedded firmware and mechanical design technologies.

He has spent the majority of his career working with equipment manufacturers with stints in the semiconductor and consulting businesses.

Lee has a degree in Electrical Engineering from the University of British Columbia and completed his management education at Simon Fraser University and the AEA/Stanford Executive Institute. He is a Professional Engineer, Senior Member of the IEEE and an IEEE Certified Wireless Communication Professional. He is also the Treasurer of the IEEE Vancouver Section.

Wednesday 19 November  
Doors: 630  
Talk: 700

Rm 1710 - SW03  
BCIT

Free for IEEE members  
A small donation from  
non-members appreciated,  
but not required



**Information**  
Joint Communications  
Chair Vincent Wong  
vincentw@ece.ubc.ca

Jt. Chapter BT-02/COM-19/IT-12/ITS-38/PHO-36/VT-06



# IEEE Okanagan Subsection Presents

**Ian Horseman**  
TELUS Communications Inc.



## **The Evolution of Telecommunications Networks, and Exploration of Future Topologies**

**Time & Date:** 5:30 pm - 6:30 pm, Wednesday, November 5<sup>th</sup>, 2014

**Location:** E 103, [Okanagan College](#), 1000 KLO Rd., Kelowna, BC V1Y 4X8 ([parking info.](#))

**Talk Abstract:** Telecommunications networks have many inventors to credit with their creation, from Alexander Graham Bell, and Marconi, to innovators like John Watson. Their contributions mixed with a myriad of topology decisions combined to build a system that most of us rely on today. Have you ever wondered how they are built? Why technologies are chosen? Or, what variables will shape the network of the future?

This talk will outline the genesis of telecommunications networks to date. It will examine the underlying causes for technology choices, and explore what holds change back. The talk will shed light on where we are going tomorrow. Have you ever asked: Why do we need fibre to the home? Or, How could we get 1 Gbps connectivity to our phones. – Come find out.

**Speaker Biography:** Ian Horseman is currently an access planner for TELUS Communications Inc., where he is part of a team of specialists which determine what shape TELUS' network will take in the future. He has worked in telecommunications in a variety of roles for the past 12 years.

While doing his undergrad (B.Eng '04) at Carleton University he was also a Technician for Bell Canada. After completing his degree he worked in a multi-discipline engineering role at Kenora Municipal Telephone Service. He helped analyze and deploy wireline, mobility and fixed wireless networks across its serving area. In 2008, Ian moved to Kelowna, BC to work for TELUS. In his current role he manages the technical outcomes of larger capital projects. He has deployed, telephone carrier systems, DSL network nodes (ADSL, and VDSL2), and various GPON/FTTx networks in BC.

Ian is also a proud member of the November 2013 graduate cohort at UBC Okanagan, and holds a Master's degree (M.Eng '13) focusing on small cell networks and project management.

**Refreshments** will be provided. For further information please contact:  
Youry Khmelevsky (email: [youry@ieee.org](mailto:youry@ieee.org)). Registration Page: <http://is.gd/XtzAVt>

# IEEE Vancouver CAS Society celebrates 2014 Chapter of the Year Award

(cancelled)

We are planning a social dinner event on Sunday 09 November at 600pm to celebrate receiving the 2014 IEEE CAS Society Regions 1-7 Chapter of the Year Award and the thirteenth anniversary since the formation of the Chapter on 20 March 2001.

The event will be held at Baci Ristorante, an Italian restaurant located at 3728 Hastings Street, in Burnaby (604) 299-7047.

The menu includes salad, pasta dish, main dish (chicken, fish, veal, or vegetarian), and tiramisu for dessert. The restaurant offers live music and dance floor so please bring your dancing shoes as there will be a lot of fun!



In order to plan the event, please let us know whether you will attend. Due to budgetary constraints, we are planning to have the event free for all the Chapter members. We might also subsidize the significant others depending on the exact number of attendees.

If you plan to attend, please RSVP by email to Parvaneh Saeedi <psaeedi@sfu.ca> no later than Saturday 01 November. Please also indicate if you plan to bring guests. The

cost for non CAS Society members is \$40/person.

We hope to see you there!

Parvaneh Saeedi and Ljiljana Trajkovic

## Past, present, and future - insights and advice from IEEE Vancouver Life Members

The Vancouver chapters of IEEE Life Members, Women in Engineering and Young Professionals affinity groups are hosting a joint event that will feature IEEE life members who will share their experiences, the challenges they faced, the lessons they learned, and provide some practical advice.

**Wednesday 12 November**

**6:00pm - 8:00pm**

Kwantlen Polytechnic University  
Richmond Campus Conference Centre A  
8771 Lansdowne Road, Richmond, B.C

### Speakers

Dr. Fiorenza Albert-Howard

Dr. Hermann W. Dommel, Professor Emeritus, Electrical and Computer Engineering  
University of British Columbia

Dr. K.D. Srivastava, Professor Emeritus, Electrical and Computer Engineering  
University of British Columbia

### Information

Dr. Abhijit Sen - abhijit.sen@kpu.ca

### Registration and latest event updates

<https://meetings.vtools.ieee.org/m/29667>

## Sleep apnoea detection via depth video recording and analysis



Gene Cheung  
National Institute of  
Informatics - Tokyo

Quality of sleep greatly affects a person's physiological well-being. Traditional sleep monitoring systems are expensive in cost and intrusive enough that they disturb the natural sleep of clinical patients. We propose a non-intrusive sleep monitoring system to detect apnoea, by first recording depth video in real-time, then offline analyzing recorded depth data to track a patient's chest and abdomen movements over time.

Specifically, our system is composed of three components: i) depth video coding, ii) temporal depth frame denoising, and iii) sleep event classification. For depth video coding, we propose an alternating-frame video recording scheme, so that different 8 of the 11 bits in MS Kinect captured depth images are extracted at different instants for efficient encoding using H.264 video codec. At decoder, the uncoded 3 bits in each frame can be recovered accurately via a block-based search procedure. For temporal depth frame denoising, leveraging on recent advances in graph signal processing (GSP), we denoise frames using a block motion vector smoothness prior expressed in the graph-signal domain, so that unwanted temporal flickering can be removed. For sleep event classification, we propose a graph-based classification scheme, so that detection of apnoea / hypopnoea can be performed accurately and robustly.

Experimental results show that our proposed system is capable of correctly identifying sleep apnoea events, and is noticeably more robust to errors in training data than two conventional implementations of support vector machine (SVM).

**Speaker:** Gene Cheung received the B.S. degree in electrical engineering from Cornell University in 1995, and the M.S. and Ph.D. degrees in electrical engineering and computer science from the University of California, Berkeley, in 1998 and 2000, respectively. He was a senior researcher in Hewlett-Packard Laboratories Japan, Tokyo, from 2000 till 2009. He is now an associate professor in National Institute of Informatics in Tokyo, Japan.

His research interests include image & video representation, immersive visual communication and graph signal processing. He has published over 140 international conference and journal publications. He has served as associate editor for IEEE Transactions on Multimedia (2007-2011) and currently serves as associate editor for DSP Applications Column in IEEE Signal Processing Magazine, APSIPA Journal on Signal & Information Processing and SPIE Journal of Electronic Imaging, and as area editor for EURASIP Signal Processing: Image Communication. He serves as the lead guest editor of the special issue on "Interactive Media Processing for Immersive Communication" in IEEE Journal on Special Topics on Signal Processing, target published date March 2015. He currently serves as member of the Multimedia Signal Processing Technical Committee (MMSP-TC) in IEEE Signal Processing Society (2012-2014). He was invited as plenary speaker for IEEE International Workshop on Multimedia Signal Processing (MMSP) 2013 on the topic "3D visual communication: media representation, transport and rendering". He is a co-author of best student paper award in IEEE Workshop on Streaming and Media Communications 2011 (in conjunction with ICME 2011), best paper finalists in ICME 2011 and ICIP 2011, best paper runner-up award in ICME 2012, and best student paper award in ICIP 2013.

Thursday 13 November

11:00 am

Room ASB 9705

Applied Sciences Bldg

SFU

### Information

Signal Processing Chair  
Ivan Bajic  
ivan\_bajic@ieee.org



# An Afternoon Under The Stars

Saturday 22 November  
2:00pm - 5:00pm

BCIT Planetarium  
3700 Willingdon Bby  
Lower level of building SW3

Join us for an immersive Deep Space, Fulldome video, and Laser imagery experience in Vancouver's "Secret" Planetarium .

A year before the launch of the well known HR. MacMillan Planetarium, BCIT began running presentations in 1967 at their on-campus Planetarium theatre. Complete with a Spitz analogue star projector, and a domed projection surface, the planetarium has been in constant use ever since those days. Currently, BCIT is researching the possibility of expanding the Planetarium operations.

Roundhouse Productions ( producers, presenters, and promoters of Vancouver's well known Laser and Light and astronomical shows ) will demonstrate their prototype multicamera array for shooting and stitching 4K Fulldome real world- real time video that will be projected by the new Digitalium Planetarium immersive projection system. This digital projector will be demonstrated by Canadian Planetariums.

Roundhouse will give a brief description on the progress made to date on converting analog laser projection libraries to the newer diode RGB laser system format, and some time will be available for some simple hands on MIDI controled laser imaging by the attendees

A small charge of \$5 per person covers snacks and drinks

All ages welcome

Register at  
<https://meetings.vtools.ieee.org/m/29647>

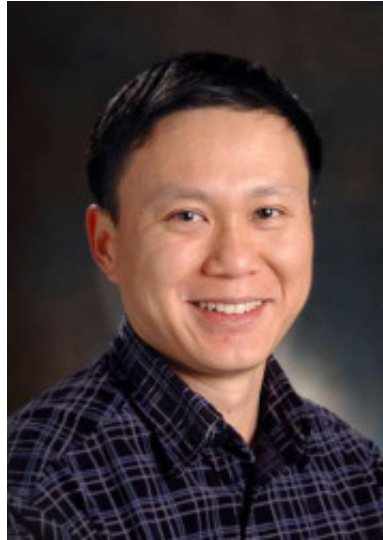
Please check  
online Contact [www.ieeecontact.org](http://www.ieeecontact.org)  
for further details

Information  
Bob Gill [bgill@ieee](mailto:bgill@ieee)  
Steven McClain [stevenmcclain@ieee.org](mailto:stevenmcclain@ieee.org)

# 2014 IEEE ICDM Research Contributions Award bestowed upon Canada Research Chair, SFU Computer Science Professor and IEEE Fellow Jian Pei

The IEEE ICDM Research Contributions Award is the highest recognition for research achievements in Data Mining, and is given to one individual or one group who has made influential research contributions to the field of Data Mining. The 2014 IEEE ICDM Research Contributions Award goes to Professor Jian Pei of Simon Fraser University, Canada.

Jian Pei is a Canada Research Chair (Tier 1) and a Professor of Computing Science at Simon Fraser University, Canada, and a Fellow of the IEEE. His research has focused on effective and efficient approaches to analyze and capitalize on big data in various applications. He has published prolifically over the core frontiers of data mining, including pattern mining, classification, clustering, anomaly detection and outlier analysis. His technical publications have been cited extensively, tens of thousands of times.



Professor Pei has made prominent contributions to the foundation, principles and applications of data mining. Together with his collaborators, he developed a series of ground-breaking frequent pattern mining methods, which have been adopted by popular data mining textbooks and used by many researchers and in industry applications. He is also proactive and strategic in extending the boundary of data mining. He contributed the major ideas of multidimensional skyline analysis, a well-seasoned integration of ideas and methods from data mining and databases.

In addition to his fundamental technical contributions, Professor Pei has also made exemplary and invaluable contributions in service to the data mining research community through journal editorship and key organizers of premier data mining conferences.

IEEE International Conference on Data Mining  
<http://www.cs.uvm.edu/~icdm/>

## Past chair urges members to cast electronic vote

Dear IEEE Vancouver members,

Thank you for your membership and continued support.

In order to maintain a high standard and to comply with IEEE MGA requirements, we are planning to hold elections to all the Executive Committee and Chapter Chairs positions. We are in the final stages of preparing the slate and there will be a few changes from last year due to resignations. We will publish the slate based on the current nomination recommendations and will allow you to add candidates, via petition if needed. When the final slate is formed you will receive an email invitation to vote electronically using IEEE vTools.

Kindly spare a few minutes to participate in the election. Voting is important to volunteers since it is a form of endorsement and an expression of appreciation. While we may have only one candidate for a position your vote will still signal a welcome approval. Our section and chapters won some excellence awards over the years and keeping a high standard on our

democratic election process is very important. Only active members can vote so please renew your membership now if you have not done so yet.

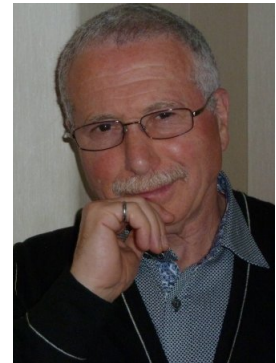
With this year coming to an end in a few months my tenure as part of the core executives of IEEE Vancouver will also end. I hope to be able to help out by volunteering in a different role but this is my last public message for the time being. I learned a lot in a variety of soft skills including accounting and the formalities of running executive meetings. I am very grateful to all those who guided and helped me and collaborated with me over the years. Special thanks to Rasvan Mihai and Dave Michelson who encouraged me to volunteer with IEEE and Comsoc and made it happen. Have an awesome year in 2015 and please cast your vote!

Best regards  
Alon Newton P.Eng smIEEE  
IEEE Vancouver Past Chair



# IEEE Okanagan Subsection Presents

Ark Tsisserev, P.Eng.  
EFS Engineering Solutions Ltd.



## **Bonding and Grounding - What, Why and how?**

**Time & Date:** 4:00 pm – 5:00 pm, Monday December 8th, 2014

**Location:** E 103, [Okanagan College](#), 1000 KLO Rd., Kelowna, BC V1Y 4X8 ([parking info.](#))

**Talk Abstract:** Understanding the objective of bonding of electrical equipment and methods of bonding. Difference between grounding of electrical equipment and grounding of electrical systems. Specific functions of bonding and grounding conductors. Particular requirements for grounding of High Voltage Installations. Issues of step and touch potential in HV installations. Fundamentals of understanding requirements for High Voltage station and station ground electrode. Principal difference between bonding, grounding and neutral conductors and their sizing.

**Speaker Biography:** Arkady Tsisserev is the President of the EFS Engineering Solutions Ltd, electrical and fire safety consulting company. Before joining the world of the electrical consulting business, Ark was the Electrical Safety Regulator for more than 25 years. Since 1993 he has held the position of the Electrical Safety Manager, Chief Electrical Inspector & City Electrician for the City of Vancouver. Before moving to the City of Vancouver he was Head of Electrical Section for the City of Winnipeg Inspections Department. Ark has written and published many articles, course notes, and taught various CE Code and fire alarm and emergency system courses at UBC, University of Manitoba and via other venues, such as industry associations and community colleges. Ark writes by-monthly columns for the “International Association of Electrical Inspectors News” and for “Electrical Line” journals. Ark is an active member of many industry associations and is involved in numerous technical committees with such organizations as CSA, NFPA, IEEE, ULC, SCC, SFPE and IEC. Mr. Tsisserev was for many years chairing the BC Electrical Code Adoption Committee. Ark is Chair of the CSA Technical Committee for the development of the CE Code and Chair of the CSA Strategic Steering Committee for the Requirements of Electrical Safety. He also actively participates in the ULC Technical Committee for the development of ULC S500 series standards. Ark represents the CSA on the NEC Technical Committee, and he chairs the Canadian National Committee on the IEC TC 64. Ark started his work in the electrical industry in 1962 as a construction electrician. Ark is a certified electrical inspector in the Province of BC and a member of various provincial engineering associations in Canada. He has obtained his PhD Degree in Electrical Engineering from the State University in Kharkov, Ukraine in 1972 and Master's Degree in Electrical Engineering from the University of Manitoba in 1984.

**Refreshments** will be provided. For further information please contact:  
Youry Khmelevsky (email: [youry@ieee.org](mailto:youry@ieee.org)). Registration Page: <http://is.gd/dRCB8Q>





Mukesh Nagpal  
BC Hydro

## Damaging over-voltages from unbalanced open phase condition on the healthy line

Shunt reactors are applied to long extra high voltage transmission lines to compensate for their natural capacitance which otherwise could cause over-voltages under light load conditions. However, when the level of compensation approaches around 65% or higher, these reactors themselves can, due to contingency, become the cause of hazardous over-voltages during unbalanced open-phase conditions on the healthy line.

This presentation reports in detail on an overvoltage disturbance from unbalanced open conditions within BC Hydro system. The disturbance was triggered by unintended tripping of a long 500 kV and highly (72%) shunt compensated line under load. In this presentation, the relay and high-speed digital disturbance records will be used to recreate the sequence of events from the initiation of the incident to the eventual line isolation by breaker failure protection after 6.85 seconds. Analyses of the waveforms will be presented to explain equipment failures during this incident. The over-voltages observed are explained using simplified steady-state analysis and validated by transient simulation studies. Results of the study will be presented. Finally, the mitigation methods to avoid damaging over-voltage under similar conditions in the future will be discussed.

**Speaker:** Mukesh Nagpal received the Ph.D. and M.Sc. degrees in electrical engineering from the University of Saskatchewan, Canada in 1990 and 1986, respectively. Dr. Nagpal is a member of IEEE-Power System Relaying Committee, Chair of an IEEE Working Group on Protective Relaying of Utility-Consumer Interconnections, a senior member of IEEE and a Power & Energy Society (PES) distinguish lecturer.

He is recently appointed as adjunct professor at University of British Columbia and registered member of Association of Professional Engineers and Geoscientists of British Columbia (BC), Canada. Currently, he is a Principal Engineer/Manager with the Protection and Control Planning Group within BC Hydro Engineering. He has 28 years of experience in electrical consulting, utility research and power system protection.

Dr. Nagpal has written about 40 technical papers on power system relaying or related topics. He is recipient of BC Hydro Awards: 2007 Mentorship Award, 2012 and 2013 Innovation Awards and 2013 Safety Award. His presentation received "Best-of-Show" award at BC Hydro's 2007 P&C Telecom Annual Technical Conference.

Wednesday 29 October  
Noon - 1:00 PM

BC Hydro  
Edmonds A01  
Skytrain Room Auditorium

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



# EMC testing: troubleshooting techniques

Wednesday 12 November  
6:00 to 7:30PM

Alpha Technologies Ltd.  
Training Lab B  
7700 Riverfront Gate,  
Burnaby, BC

Sponsor by  
Alpha Technologies Ltd  
QAI Laboratories  
IEEE EMC, Aerospace  
and PSES joint chapter

Finger food and drinks  
will be provided

Registration is free  
contact  
peter.lim@alpha.ca

**Information**  
Joint Aerospace and  
Electromagnetics  
peter.lim@alpha.ca

The need to quickly satisfy today's Electromagnetic Compatibility requirements during product development poses a severe challenge to engineering teams that are forced to do everything faster and more effectively with ever-diminishing manpower and financial resources. In today's environment, the traditional and seemingly endless rounds of testing and failing, trying a "fix", re-testing and failing again is a recipe for business failure. The aim of this presentation is to provide engineers and system designers with a set of practical diagnostic approaches, troubleshooting techniques (both old and new), and cost-effective solutions for the most common types of EMC problems, so that compliance with EMC requirements can be quickly and cost effectively achieved. Armed with this information, you will never need to say "Oh No! It just Failed Radiated and Conducted Emissions AGAIN!!!"

This hour-long presentation will review:

- How to use preliminary scans to find solutions to radiated and conducted emissions failures at both low and high frequencies
- In-house techniques you can use to measure both Common Mode Noise emissions and Differential Mode Noise emissions from your product, and what those measurements will tell you
- Simple, relatively low cost tools that you can buy or construct yourself that can be used to

make both Common and Differential Mode Noise measurements (including Near-field "sniffer" Probes, Currents Clamps, LISNs, Differential Mode Rejection Networks (DMRNs), and Ferrite Beads)

- Where, when and how to use Ferrites Beads and Toroid's, Decoupling Capacitors, Two-terminal and Three-terminal Bypass Capacitors, Inductors and Resistors to maximize their useful effects on your product's emission levels
- Techniques that work - and techniques that don't work - for solving EMC problems. The presentation will conclude with a question and answer session.

**Speaker:** Parminder Singh, EMC Division Manager. Parminder holds a Bachelor of Technology in Electronics, Dip T – Robotics and Dip T – Telecom. Parminder has specialized in EMC compliance testing since 2001. Parminder worked in the engineering department of Unity Wireless and at VSM MedTech on the Magnetoencephalography (MEG) system, a medical imaging system used to measure the magnetic fields produced by electrical activity in the brain. Parminder also worked as an EMC Test Engineer at National Technical Systems in Calgary, as well as at other EMC labs.



**IEEE Joint Aerospace and  
Electromagnetics Chapter**



Tom Williams  
University of Calgary

ECE Colloquium &  
Distinguished Visitor

Thursday 17 November  
4:00 p.m.

Refreshments  
3:40 p.m.

Kaiser 2020/2030  
2332 Main Mall  
UBC

**Info**  
André Ivanov  
ivanov@ece.ubc.ca

## Another inconvenient truth: snails are more intelligent than us

For decades there has been a new CMOS technology node every two years or so. Thanks to Moore's law and Dennard scaling, the key feature of every new technology node has been 100% integration capacity and 40% performance improvement... free-of-charge. The International Technology Roadmap for Semiconductors (ITRS) has been architected in such a way that this improvement became a self-fulfilling prophecy of the roadmap itself. Everything else has been bent in the attempt to make scaling happen forever.

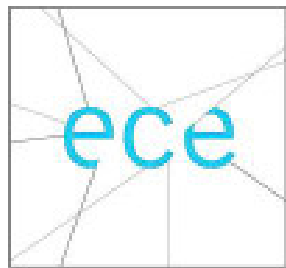
For eons snails have built the cells of their shell according to the Fibonacci's numbers: 0, 1, 2, 3, 5, 8, 13, 21, 34, ... Each each cell has a volume that is the sum of the volume of the previous two cells. Snails understand, however, that at a certain point growth must stop to prevent the collapse of the shell. When this point is reached snails start improving the robustness of the shell.

Back to us: technology-wise, scaling has rapidly exhausted the resources of CMOS technology that struggles to deliver any further improvement.

In order to stay afloat, the semiconductor industry would need to double the number of units it sells, from

one technology node to the next. Not only is this clearly impossible, but it puts the semiconductor suppliers on a collision course with their customers, who are now looking for half the silicon area from one technology node to the next. Atoms don't scale, and markets are finite. New avenues, which are available today, are worth exploring and must be undertaken. Unless snails are more intelligent than us.

**Speaker** Dr. Thomas W. Williams is a Consultant in the area of Electronic Design Automation and an Adjunct Professor at the University of Calgary. He has been a Synopsys Fellow, and before that he was with IBM's Microelectronics Division and was manager of the VLSI Design for Testability group. He has received numerous best paper awards from the IEEE and ACM, and is the founder or co-founder of a number of workshops and conferences dealing with testing. He is a recipient of the IEEE Computer Society's W. Wallace McDowell Award for outstanding contributions to the computer art, the IEEE TTTC Lifetime Contribution Medal and the European Design and Automation Association Lifetime Achievement Award. He is an IEEE Fellow and a foreign member of the Chinese Academy of Science.



# Electrical and Computer Engineering

## Joint BC Hydro/IEEE Industry Applications Chapter Event

“Meet and Learn” - Technical Society Reporting Out Session – CIGRE/IEEE/EPRI

November 25, 2014 - 4:30pm to 6:00pm

Southpoint Room - BC Hydro's Edmonds Office

6911 Southpoint Drive, Burnaby, BC

The IEEE Vancouver Section Industry Applications Society Chapter and BC Hydro Office are pleased to co-sponsor this technical society reporting out event. The purpose of this event is to share and transfer knowledge gained from attending technical society meetings, conferences, etc. with others in the profession. The presentations to be made at this event are from BC Hydro staff who are members of various the CIGRE, IEEE and EPRI groups. See below for more details. Each presentation will be 30 minutes long. Please come and meet with colleagues on topics relevant to the power industry. Food and refreshments will be provided. Registration is encouraged and the event is free-of-charge.

### Agenda:

#### 4:30 - 5:00 pm: “CIGRE 2014 Meeting” by Sudhakar Cherukupalli



**Sudhakar Cherukupalli** is a Principal Engineer and Team Lead of the Transmission Cables Design at BC Hydro with 38 years of industrial experience. He worked at Brown Boveri and was involved in 420kV switchgear design and subsequently worked in the area of SF<sub>6</sub> GIS research. He obtained his Ph.D. in Electrical Engineering from the University of British Columbia and worked at Powertech Labs for 10 years before joining the BC Hydro Transmission Engineering in 1999. He has contributed to several IEEE Standards and has over 30 publications. He is also registered as a Professional Engineer in the Province of BC.

Sudhakar is the Canadian National Representative on CIGRE D1-Emerging Test Techniques Committee and he will report out on his attendance of the 2014 CIGRE Meeting.

#### 5:00 – 5:30 pm: “IEEE 2014 Power and Energy Society General Meeting” by Mazana Armstrong



**Mazana Armstrong** is a Specialist Engineer and Team Lead with BC Hydro Transmission Engineering. Her responsibilities include electrical aspects of transmission line design, operation and maintenance including environmental aspects, tower shielding, grounding, engineering aspects of worker safety, joint use of ROWs and other topics relevant to the design, maintenance and management of BC Hydro's transmission system assets. She holds a degree in Electrical Engineering from the University of Zagreb, Croatia, and M.A.Sc. and Ph.D. from the University of British Columbia, Canada. Mazana is a registered professional engineer in the Province of British Columbia. She is also a paper reviewer for IEEE Transactions on Power Delivery, and she is a member of the Canadian Standards Association (CSA) and the IEEE Standards Association.

Mazana will report on her attendance at the IEEE PES General Meeting held in National Harbour Maryland in July 2014. This annual conference provides an international forum for experts to promote, share, and discuss various issues and developments in the field of electrical power engineering. The theme of the meeting was Charting the Course to a New Energy Future. Mazana will provide a summary of the topics covered by the T&D Overhead Lines and Engineering in the Safety, Maintenance and Operation of Lines (ESMOL) Subcommittees and highlight and discuss issues that are currently of high interest to BC Hydro as well as the rest of the power industry.

#### 5:30 – 6:00 pm: “EPRI 2014 Underground Transmission Task Force” by Hon Suen



**Hon Suen** is a Specialist Engineer in the Transmission Cables Design at BC Hydro with 39 years of experience working in utilities in Hong Kong, Ontario and BC on power transmission projects. He is registered as a Professional Engineer in the Province of BC.

Hon will report out on his attendance of the held in September 2014 in Chicago.

Please contact Bob Stewart of BC Hydro at [bob.stewart@bchydro.com](mailto:bob.stewart@bchydro.com) or Jeff Bloemink, the IAS Chapter Chair at [jbloemink@bcit.ca](mailto:jbloemink@bcit.ca) if further information is required.

# ***Watch for these upcoming events..!!***

**Sean Garrity, Chair of the Young Professionals**  
reports that their YP affinity group will be hosting a talk on  
*Why fundamental research is important*  
by speaker  
Dr. Stanley Yen

The talk is tentatively scheduled for Wednesday 26 November

**Youry Khmelevsky - Chair, Okanagan Sub-section**  
has several possible events on the table

- Martyn Jackson, Solutions Architect Dell.com - new solutions from Dell
- Raghwa Gopal, agreed to give a talk, we are discussing topic(s)  
(<https://www.linkedin.com/in/raghwagopal>)
- Greycon Group, Dave Zylyk solutions architect consultant  
<https://www.linkedin.com/pub/dave-zylyk/43/80/64>
- ScottMcMillan, XCo.io, Blur Sports Inc., DNA Bike Fit. Topic area  
“sensor based products for sport, fitness and healthcare to meet the  
needs of today and tomorrow.”
- Electrical Engineering Industry Night in February 2015, organized  
by IEEE Student Branch University of British Columbia | Okanagan.

**Ophir Kendler IEEE Vancouver Secretary**  
told Contact that the following event, while not yet organized,  
could happen this November - maybe on the 15th

Topic: Systems Engineering and Oceanic Applications  
Date: TBD (November 15 or in the last week of November)  
Location: TBD (tentatively False Creek Yacht Club)

We will be gathering the oceanic and systems engineering community for a discussion of oceanic applications in systems engineering. The agenda is currently being developed! Stay tuned for more information, or contact Ophir Kendler ([ophir2k@ieee.org](mailto:ophir2k@ieee.org)) for inquiries at any time. We are also actively seeking presenters for the event.