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MAY 2016 CIRCULATION 3674

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- · Networing at a hyper-scale
- IEEE IEMCON 2016 Call for papers

Understanding implicit bias and stereotype threat

## An IEEE Canada Women in Engineering Forum



Catherine Roome, BCSC



Lesley Shannon, SFU



Nancy Paris, BCIT

#### Program

13:00 — 13:30 Registration

13:30 — 13:35 Opening remarks

13:35 — 14:15 Catherine Roome • Business case for diversity

14:15 — 14:30 Break

14:30 — 15:15 Lesley Shannon

15:15 — 16:00 Nancy Paris

15:45 — 16:25 WIE panel

16:25 — 16:30 Closing remarks followed by networking

### Wednesday 18 May - 100pm - Marriott Pinnacle Vancouver

• Engineering the future

Registration: http://www.eventbrite.com/e/women-in-engineering-an-ieee-canada-women-in-engineering-forum-tickets-24328083954

- Forum is free for all CCECE 2016 conference registered attendees.
- Forum is also free for general public but you must register ahead of time.



Wei Yu University of Toronto

#### **Distinguished Lecturer**

Friday 03 June 3:30 pm

Rm 418 - Macleod Bldg 2356 Main Mall, UBC

Everyone is welcome!

## Cloud radio-access networks: coding strategies, capacity analysis, and optimization techniques

Cloud radio access network (C-RAN) is an emerging wireless cellullar architecture in which the base-stations (BSs) take advantage of high-capacity backhaul links to upload signal processing and computation to a cloud-computing based central processor. The C-RAN architecture offers an enabling platform for the centralized joint encoding and joint decoding of user messages and a capability for intercell interference mitigation across the BSs.

In this talk, we address the capacity analysis and optimization technique for C-RAN while specifically taking into account the finite capacity constraint on the backhaul links. In the uplink, the C-RAN architecture can be modeled as a multiple-access relay channel. We analyze a compress-and-forward scheme in which the BSs quantize the received signals and send the quantized signals to the central processor using Wyner–Ziv coding. We also propose a successive convex optimization approach for optimizing the quantization noise covariance matrix. In the downlink, the C-RAN architecture can be modeled as a broadcast relay channel. We compare the message-sharing strategy versus compressionbased strategy for this setting, and show how compressive sensing and weighted minimum meansquared error (WMMSE) techniques can be used to solve a network utility maximization problem involving joint user scheduling, BS clustering and beamforming in a user-centric message-sharing C-RAN design.

**Speaker:** Wei Yu received the B.A.Sc. degree in Computer Engineering and Mathematics from the University of Waterloo, Waterloo, Ontario, Canada in 1997 and M.S. and Ph.D. degrees in Electrical Engineering from Stanford University, Stanford, CA, in 1998 and 2002, respectively. Since 2002, he has been with the Electrical and Computer Engineering

Department at the University of Toronto, Toronto, Ontario, Canada, where he is now Professor and holds a Canada Research Chair (Tier 1) in Information Theory and Wireless Communications. His main research interests include information theory, optimization, wireless communications and broadband access networks.

Prof. Wei Yu currently serves on the IEEE Information Theory Society Board of Governors (2015-17). He is an IEEE Communications Society Distinguished Lecturer (2015-16). He served as an Associate Editor for IEEE Transactions on Information Theory (2010-2013), as an Editor for IEEE Transactions on Communications (2009-2011), as an Editor for IEEE Transactions on Wireless Communications (2004-2007), and as a Guest Editor for a number of special issues for the IEEE Journal on Selected Areas in Communications and the EURASIP Journal on Applied Signal Processing. He was a Technical Program co-chair of the IEEE Communication Theory Workshop in 2014, and a Technical Program Committee co-chair of the Communication Theory Symposium at the IEEE International Conference on Communications (ICC) in 2012. He was a member of the Signal Processing for Communications and Networking Technical Committee of the IEEE Signal Processing Society (2008-2013). Prof. Wei Yu received a Steacie Memorial Fellowship in 2015, an IEEE Communications Society Best Tutorial Paper Award in 2015, an IEEE ICC Best Paper Award in 2013, an IEEE Signal Processing Society Best Paper Award in 2008, the McCharles Prize for Early Career Research Distinction in 2008, the Early Career Teaching Award from the Faculty of Applied Science and Engineering, University of Toronto in 2007, and an Early Researcher Award from Ontario in 2006. He is recognized as a Highly Cited Researcher by Thomson Reuters. Prof. Wei Yu is a Fellow of IEEE. He is a registered Professional Engineer in Ontario.

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





Wanda Reder S&C Electric Company

#### **Distinguished Lecturer**

Thursday 12 May 4:45PM to 6:00 PM

BC Hydro Edmonds A01 Auditorium - Center Room 6911 Southpoint Dr Bby

#### Electric utilities — an industry in transition

The electric grid is undergoing significant transformation from the introduction of digital technologies, policies encouraging the growth of renewable and distributed energy resources, and increasing engagement of electricity customers and businesses in both managing and producing energy. Large public and private investments are being made to advance this agenda. Deployments are delivering results, yet the rate of smart grid technology adoption varies across the world. Meanwhile, electrical infrastructure can be susceptible to widespread outages from dynamic activity introduced by significant renewable penetration along with natural and manmade cyberattacks. This presentation discusses a vision for the grid of the future, while especially highlighting the opportunities for energy storage and the challenges Richard M.Emberson Award in 2014. that remain.

S&C Electric Company, has led S&C into the wind, solar and energy storage market. She capitalized on S&C's protection and control products and technical

expertise in engineering and design, relaying, protection and coordination to build a world class service business that actively designs, installs and monitors systems for utilities and renewable developers, as well as pioneers in utility-sized storage application.

Wanda was the first female president of the IEEE Power & Energy Society, has served on IEEE Board as a Director and is on the IEEE Foundation Board. Named a Distinguished Engineer at South Dakota State University in 2007, she became an IEEE Fellow in 2012 and received the IEEE Power & Energy Society Leadership and Meritorious Service Awards in 2012 and 2013 respectively. She received the IEEE TAB Hall of Honor Award in 2013, and the IEEE

A candidate for the 2017 IEEE President-Elect, and **Speaker:** Wanda Reder, Chief Strategy Officer at member of the US Department of Energy's Electricity Advisory Committee, she was recently elected to the National Academy of Engineering.

Li Xiao **BC** Hydro

Thursday 02 June 12:00PM to 1:00 PM

BC Hydro Edmonds A01 Auditorium - Center Room 6911 Southpoint Dr Bby

## Environmental friendly substation and nexgen substation design ideas

and distribution networks. To satisfy the increasing efficient and reliable electricity demand, more and more substations have to be installed. But locating substations can be very difficult now due to environmental focus and other regulations. The society's perception to environment has changed over years. This becomes especially challenge in urban environments where the demand for power is high, but the space available for the construction of a substation is limited.

The power companies around the world have been facing this situation and have been developing new substation design ideas. This presentation will take you to explore some of the unique designs, which are called environmentally friendly substation design and innovative NexGen substation design. The creative substations can be built outdoor blended in the beautiful landscape, or can be found in sports stadiums, beside the busy streets, adjacent to or underneath museums, hidden below community parks, in the basement of the parking lot, even under the basement of high rise buildings. This presentation will also give you a brief view of the challenges which NexGen substation design.

Substations are the key elements in transmission BC Hydro is facing when we are working on the redevelopment of downtown Vancouver substations project and bring you the visions of BC Hydro future substation.

> Speaker: Li Xiao is a Professional Engineer in the Province of British Columbia. She received the M.Sc. degree in electrical engineering and B. Sc. degree in computer engineering from the University of Wuhan, Hubei, China. Currently, she is a Senior Engineer with the Station Electrical Group within BC Hydro Engineering, Burnaby. She has more than 26 years of experience in electrical research, IT, and station electrical design. Li Xiao expertizes in substation grounding modeling, substation circulating ground current analysis, substation indoor/outdoor design. She was the lead electrical designer for the design of BC Hydro first in-service medium voltage GIS substation - North Vancouver Substation. She has contributed to the standard of Copperweld application guide in substation grounding design. Currently she is working on preliminary concept design of the redevelopment of Downtown Vancouver substations project and shows great passion in tackling technical challenges of

#### Information

Joint Power & Energy Chair Dipendra Rai Dipendra.Rai@bchydro.com



## **CCECE 2016**

## Vancouver May 15-18

## Advancing society through electrical and computer engineering

We are promising an excellent conference experience. If you have not already registered for the conference and/or the tutorials, you may still do so at

#### http://ccece2016.ieee.ca/index.html#registration

#### **Outstanding Tutorials**

(Sunday 15th May, morning and afternoon)

This is a terrific opportunity for you, as either a researcher or practicing engineer, to get a primer and update on the latest technology and trends in topical areas of ECE. The cost is very There are a truly outstanding set of keynotes from leading industry modest, being heavily subsidized by the IEEE. It is open for everyone to take. You do not have to be a conference registrant to register for your tutorials of choice, but you must register.

#### http://ccece2016.ieee.ca/#tutorials

#### TUTORIAL 1. Ground Fault Protection, Symmetrical Components And Other Practical Protection Concerns

Rasheek Rifaat (Jacobs Canada, Calgary, AB, Canada)

#### TUTORIAL 2. Design Methodology And Circuit Techniques For Any-Load Stable Ldo Regulators With Instant Load Control Igor M. Filanovsky (University Of Alberta, Edmonton, AB)

Vadim Ivanov (Texas Instruments, USA)

#### TUTORIAL 3. Wireless Communications With Energy Harvesting Nodes

Md. Jahangir Hossain (The University Of British Columbia – Okanagan surface. Campus, Kelowna, BC)

Imtiaz Ahmed (Mcgill University, Montreal, QC)

#### TUTORIAL 4. Secure Routing

J. William Atwood (Concordia University, Montreal, QC)

#### TUTORIAL 5. Radiation Effects In Aerospace: Environment, utility. Effects, Modeling, Design and Test

David Hiemstra (Macdonald, Dettwiler And Associates - Mda, Brampton, ON)

Li Chen (University Of Saskatchewan, Saskatoon, SK)

Ewart Blackmore (Triumf, Vancouver, BC)

Manoj Sachdev (University Of Waterloo, Waterloo, On, Canada)

#### TUTORIAL 6. Social Learning And Controlled Sensing

Vikram Krishnamurthy (University Of British Columbia, Vanc, BC)

#### TUTORIAL 7. Machine Learning Applications In Computational **Cancer Biology And Genomics**

Ali Bashashati (Bc Cancer Agency, Vancouver, BC) Hossein Farahani (Bc Cancer Agency, Vancouver, BC)

#### **Technical and Social Program**

There were 407 submissions with the best 277 accepted for publication. There will also be posters, refreshments galore, a Welcome Reception on the Sunday evening, a banquet at the conference hotel on the Monday evening, and for those who get reservations early, a harbour cruise with dinner on the Tuesday evening.

#### Amazing keynotes

professionals, and these offer a tremendous opportunity to sample the latest situation from critically important ECE industries in an entertaining and effective way. The talks will be followed by refreshments. http://ccece2016.ieee.ca/keynotes.html

#### Monday 8:00 am

The conference opening guest is BC's Minister of Advanced Education, **Dr. Andrew Wilkinson**. This is an important address because it is a chance to hear the latest opportunities in advanced education in Canada. Dr Wilkinson is well qualified for this talk, with degrees from Dalhousie, Alberta and Oxford where he was a Rhodes Scholar. Mr. Ralf Groene, director of the industrial design team at Microsoft, will follow Dr. Wilkinson with a talk on industrial, digital, material, and interaction design. Dr. Alan Thompson, Chief Systems Engineer at MDA, will present the extraordinary story of Canada's strong presence and future in spaceborne radar for imaging the earth's

#### Tuesday 8:30 am

Mr. Jeremy Hilton of D-Wave Systems will introduce us to quantum computing, seen as a key future Canadian technology in ECE. Dr. Kip Morison, CIO of BC Hydro, will provide us with a glimpse of the operations and technology for planning and running a large power

#### Wednesday 9:30am

Professor Andrew Goldenberg, Canada's foremost robot engineer and entrepreneur, will review robot technology and how to use it to create a sustainable job-generating business - with an extraordinary wide range of applications.

#### **Industry Forum and Women-in-Engineering Forum**

(See elsewhere in this Contact Newslettre for information)

Yours sincerely, Rodney Vaughan and Rabab Ward, General Chairs, on behalf of the Organizing Committee for CCECE 2016.



#### **Accelerator & Government Panels**

## **An IEEE Canada Industry Forum**

Wednesday 18 May - 100pm Marriott Pinnacle Vancouver

A forum for current and aspiring High-Tech Entrepreneurs Sponsored by: IEEE Canada, IEEE Vancouver, National Science and Engineering Research Council

The objective of this forum is to bring the attendees up to date on the myriad of programs that are available to support technology industries in our region. The technology support ecosystem has improved much over the years with both the Canadian and BC governments supporting various assistance programs. The forum will introduce active and would-be entrepreneurs and business people to the programs available to assist their small companies.

The forum will begin with welcoming messages from the organizers and opening remarks by Daphne Meredith, Deputy Minister of Western Diversification. Following these opening activities the forum is divide into three panels:

- Accelerator Panel
- Government Funding Panel
- Industry Veteran Panel

Each panel will be  $\sim$ 45 minutes in length with a 10 minute PowerPoint presentation from each of the three speakers followed by 15 minutes of moderated discussion and Q&A. At the end of each panel attendees should know what each of the presenting organizations offer in the way of support for the tech industry, how to contact the organization for assistance, and what your responsibilities and expectations should be.

#### The Industry Veteran Panel

Each of the three panelists will start by introducing themselves and give a verbal account of their journey as entrepreneurs, what programs they used and how these impacted their business. These personal accounts will be followed by a moderated conversation and audience Q&A.

#### **Networking**

The forum will be followed by a networking event with food, beverages and cash bar. This will give you an opportunity to approach those speakers that are most relevant to your company.

Registration is free but required. Please go the CCECE 2016 event page for the registration link. http://ccece2016.ieee.ca/events.html#industry

If you have any issues with registration please contact

Lee Vishloff

lee@vishloff.ca

## 14th IEEE International NEWCAS Conference June 26 - 29, 2016

#### Vancouver Marriot Pinnacle Downtown Hotel

On behalf of the organizing committee of the conference, we would like to invite you to participate in the 14th IEEE International NEWCAS Conference in Vancouver (June 26 to 29, 2016). Continuing the tradition of NEWCAS, the 2016 edition of the conference will be an excellent opportunity to experience a rich mix of excellent technical and social programs. The conference registration includes attending tutorials (on Sunday, June 26, 2016) and the technical program (Monday through Wednesday, June 27 to 29, 2016). If you have not registered already, you may still do so through registration link http://newcas2016.ieee.ca. Online registration is now open. Although you can register online or on-site at the conference venue, please note that early registration deadline is May 15, 2016. NEWCAS 2016 program includes excellent tutorials, outstanding plenary talks, superb technical sessions, and wonderful social events. Please find below some of the highlights of the program and for more information please refer to the conference web site. We are looking forward to meeting you at the conference.

Sincerely,
General Co-Chairs of NEWCAS 2016:
Mohamad Sawan (Professor, Polytechnique Montreal) and
Shahriar Mirabbasi (Professor, University of British Columbia)

#### Tutorials — Sunday June 26

Tiny inductively powered Battery Chargers

by Professor Gabriel Rincon-Mora (Georgia Institute of Technology)

Phase-locked clock generation for SoC: crcuit and system designaspects

by Professor Woogeun Rhee (Tsinghua University)

Development of massively-parallel multimedia algorithms and applications in the integrated multi-cre/GPU patform

by Professor Saeid Nooshabadi (Michigan Technological University) Optimizing nanoCMOS crcuits by using transistor networks by Plenary Talks — June 27 to 29



**Design for low power: the next frontier**Professor Behzad Razavi,
University of California, Los Angeles

Designing (relatively) reliable systems with (highly) unreliable components Professor Massimo Alioto.



Professor Massimo Alioto, National University of Singapore



mm-Wave CMOS to the rescue: 5G and beyond (xG) communication and enhanced biosensing
Professor Ali Niknejad,
University of California, Berkeley

#### Technical Program — June 27 to 29

18 technical sessions consisting of lecture sessions (2 parallel sessions each day), and one poster session per day on Tuesday and Wednesday.

#### Social Events — June 26 to 28

Professor Ricardo Reis, Universidade Federal do Rio Grande do Sulone per day on the evenings of Sunday, Monday, and Tuesday.

# 2016 IEEE International Symposium on Ethics in Engineering, Science and Technology





May 13-14, 2016 Vancouver, BC

#### Date:

May 13-14, 2016

#### Location:

Marriott Pinnacle Downtown Hotel, Vancouver, BC

#### **Patrons & Sponsors:**

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- IEEE Vancouver



IEEE Ethics 2016 will provide an exciting opportunity for researchers, practitioners, regulators, and educators alike to debate, discuss and deliberate concerning modern engineering ethics and ethical standards, and their impact on our lives, careers, profession and society.

#### **Featured Keynotes and Panel Discussions:**

- Ethical Challenges in Biomedical Engineering Research and Practice
  Dr. Subrata Saha SUNY Medical Center
- Frenemies: Navigating the collaborative
  DMZ between competitors
  Peter Hoffman The Boeing Company
- Ethical Issues your Mother Did Not Address

Robert W. Hunter - Bull Housser

#### \*\* new \*\* Doctoral Workshop!

Free workshop for Doctoral and Masters students who are attending the ETHICS 2016 main conference.

FOR DETAILED PROGRAM INFORMATION and ONLINE REGISTRATION, PLEASE VISIT:

http://sites.ieee.org/Ethics-Conference



#### More clients, more fees, more fun

10 May 6pm

Location: TBD

45 minutes plus time for questions

Book: Consulting Made Easy Free copy to everyone who attends!

Methods and techniques to develop your business more effectively, free up some time and get paid more for your expertise. And be happier! Speaker: Adrian Partridge, President of ClearLead Consulting. Adrian Partridge is a leading consultant in his field and runs his own consulting company.

Based in British Columbia, Canada, he works all over the world and has consulted to a wide range

of clients over the years. Latterly, he's moving more into business of writing, training and coaching other consultants. Author of "Consulting Made Easy". "An engaging and thorough compilation of help and advice for consultants and would-be consultants. Easy to read, practical and full of examples, this is an invaluable book to newcomers and experienced consultants alike." Michèle Soregaroli, Transformation Catalyst Founder, CEO, Award Winning Coach

Save The Date!

The IEEE Young Professionals will be hosting a summer Bar-B-Q for all IEEE Vancouver members. This will be a fabulous event and great opportunity to connect with your IEEE community.

Saturday, June 4th Central Park (Burnaby) Confirm your interest now: http://goo.gl/forms/h8gLIAffII

#### Information

Sean Garrity, Chair IEEE youngprofessionals sean.garrity.ca@ieee.org





**Brad Booth** Microsoft

Thursday 26 May 10:30 - 11:30

Room 2020 / 2030 Fred Kaiser Building 2332 Main Mall, UBC

### Networking at a hyper-scale

We live in a mobile-first, cloud-first world where connectivity has become a part of our everyday lives. But what does this mean to the engineers that have to design the networks that are the backbone of the cloud. Learn what it means to design and build the big cloud operators.

Principal Engineer at Microsoft, where he leads the networking by Network World magazine. development of hyper-scale interconnect strategy for

Microsoft's cloud datacenters. He is also the founder and past Chairman of the Ethernet Alliance. Brad was previously a Distinguished Engineer in the Office of the CTO at Dell Networking, where he developed Dell's next generation server-storage-networking fabric stratnetworks that operate at a hyper-scale – the scale of egy. He has also held senior strategist and engineering positions at Applied Micro, Intel, and PMC-Sierra. The holder of 16 patents related to networking technolo-Speaker: Brad Booth is a long-time leader in Ethernet gies, he has received awards from the IEEE Standards technology development and standardization. Cur- Association for work on Ethernet standards and awards rently heading up the 25/50G Ethernet Consortium for his contributions to industry consortia. He was and the Consortium for On-Board Optics, he is a listed as one of the 50 most powerful people in

#### Information

Colleen Brown colleenb@ece.ubc.ca



#### IEEE Vancouver AGM 2016

The 2016 edition of IEEE Vancouver's Annual General Meeting held on 24 March 2016 was well represented by sponsor's representatives, industry professionals, academics and students altogether totaling 106 attendees.

The AGM is held annually to conduct formal business after the year end. Section Chair Lee Vishloff reported on the 2015 activities and the plans for 2016. Treasurer Steven McCLain reported on the financial results and presented the auditors report. Attendee members voted to approve these reports and for the appointment of tion was well applauded by attendees. a new section auditor.

Beyond conducting official business, the AGM provides an opportunity for recognizing and honoring outstanding individuals and groups with awards and student scholarships.

#### Awards

IEEE Vancouver recognized several volunteers for their significant. The executive wishes to obtain feedback to continue improving the contribution. Winners are:

- 1. Outstanding Student Branch Activities BCIT Johnson Huang & John Shin
- Outstanding Small Technical Chapter Okanagan Subsection-Youry Khmelevsky
- Outstanding Large Technical Chapter Power & Energy Society ttp://vancouver.ieee.ca/AGM2016
- Dipendra Rai
- 4. Outstanding Affinity Group Young Professionals Sean Garrity
- 5. Outstanding Volunteer Youry Khmelevsky
- 6. Service award Past Chair Balbir (Bob) Gill

#### Student scholarships

- 1. Thurb Cushing Scholarship Award Ilia Kalmansont UBC
- 2. John Deane Scholarship Award Gordon Ho SFU
- 3. Hector J. MacLeod Scholarship Award Johnson Huang

#### **BCIT** poster competition

Four student posters and one special poster & demo were exhibited in the foyer. The competition entries were:

- 1. Network Sniffing with Practical Analysis on a Test Network Ben Farrell, KPU
- 2. SFU Fun with Antennas, Propagation, Communications and Platinum sponsors: Simon Fraser University, BCIT, Schweitzer Signal Processing Ying Chen, Maryam Rasmhoseini, Abhijit Engineering Laboratories, Tourism Vancouver, GE Grid Solutions Bhattacharya and Roshanak Zabihi-SFU
- 3. Low Cost Human like Robot Hand (poster and demo) (First Silver sponsors: University of British Columbia, Kwantlen Polytech-Prize). Kay Yang, KPU
- 4. Wheelchair Accident Alert System (Second Prize) Nicolaas Dreyer, Desmond Wong, and Johnny Le, BCIT

#### Financial and auditor reports

Financial and auditor reports presented by treasurer Steven McClain were approved. The auditors for the coming year are: Jeff Bloemink ,Rodney Vaughan, José Marti

#### Keynote speech

Mr. Chris O'Riley, The Deputy CEO of BC Hydro delivered a Keynote Speech on The Importance of Infrastructure Investment. Mr. O'Riley discussed Hydro's plans for several large scale initiatives as well as some of the environmental and regulatory difficulties. The presenta-

#### Student raffle prizes

The sponsor's generous gifts and raffle prizes were given away with due acknowledgement during the draw. The proceeds of the student raffle are donated to the IEEE Vancouver Student Scholarship fund.

#### AGM Survey

AGM. All AGM attendees and non attendees are invited to provide their opinions and suggestions regarding the AGM. The survey is anonymous. http://goo.gl/forms/Z6c1tFNQMx

#### AGM Photos

#### Thanks to AGM sponsors!

IEEE Vancouver took the opportunity during the AGM to thank its sponsors and supporters. This year the section had a record 11 sponsors supporting our AGM, representing academic institutions as well as industry.

These sponsors contributed toward the AGM in many ways—without their support, a high quality event would be not be achievable for the section. IEEE Vancouver again takes this opportunity to thank our sponsors:

Gold sponsors: ABB BBA

nic University, BC Hydro, SNC-Lavalin

#### Vancouver section seeks Input on Possible Logo Modifications

The Vancouver section adopted a new logo in 2011, as part of the section's centennial anniversary.

The centennial version of the logo was popular. Unfortunately the centennial version is now out of date. While the base section logo is still available, the section is considering a possible modification to the centennial version. Please review the four proposed modifications and let us know which you prefer! Thank you for your input regarding possible modifications to the Vancouver section logo.

Please visit our online survey page to review the proposed modifications and to give us your opinion:

http://goo.gl/forms/UL0tKntT92

The Vancouver section executive will be considering input from our members before determining next steps. We hope that all members take this opportunity to take the survey.

# The 7th IEEE Annual Information Technology, Electronics and Mobile Communication Conference IEEE IEMCON 2016 University of British Columbia 13 - 15 October 2016

**SPONSORS** • IEEE Vancouver • Institute of Engineering and Management • University of Engineering and Management • American Science & Technology Publishers Corporation

**PROGRAM CHAIRS** General Chairs • Son Vuong (University of British Columbia) • Victor Leung (University of British Columbia)

**Technical Program Chairs •** Bob Gill (British Columbia Institute of Technology) • Ash Parameswaran (Simon Fraser University) • Satyajit Chakrabarti (Institute of Engineering & Management)

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**Technical Committee Members** • Octavio Castillo Reyes (Barcelona Supercomputing Center) • Supriyo Bandyopadhyay (Virginia Commonwealth University) • Eric Paquet(University of Ottawa) • Wuxiong Zhang (Shanghai Research Center for Wireless Communication) • Tien V. Do (Budapest University of Technology and Economics) • Stephen Brown (University of Toronto) And several other spanning across the globe.

**KEYNOTE SPEAKERS** • Sushanta Mitra, Chair of Mechanical mable Gate Array) Design and Applications • Electronic Engineering Department, York University • Raj Jain, Professor of Computer Science and Engineering, Washington University in St. Louis.

Mable Gate Array) Design and Applications • Electronic Instrumentations • Electronic Power Converters and Inverters • Control Theory and Applications • Robotics and Autonomous Systems • Intelligent Control • Optimal Control • Robust Control

**IMPORTANT DEADLINES** • Full Paper Submission : 30th June 2016 • Acceptance Notification : 31st July 2016 • Camera Ready Paper Submission : 31st August 2016 • Registration : 31st August 2016

## University of British Columbia 13 - 15 October 2016

#### **CALL FOR PAPERS**

Accepted and presented papers will be submitted for publication to: IEEE Xplore Digital Library

The conference aims to bring together scholars from different disciplinary backgrounds to emphasize dissemination of ongoing research in the fields of Information Technology, Electronics and Mobile Communication. Contributed papers are solicited describing original works in the above mentioned fields and related technologies. The conference will include a peer-reviewed program of technical sessions, special sessions, business application sessions, tutorials, and demonstration sessions.

Topics and Technical areas of interest include but are not limited to the following: **Track I:** Information Technology • Business Intelligence and

Applications • Computer Network • Evolutionary Computation and

Algorithms • Image Processing and Multimedia Technology • Information Security and Encoding Technology • Signal Detection and Processing • Technique and Application of Database • Data Mining • Software Engineering • Mobile Computing • Distributed Systems • Artificial Intelligence • Visualization and Computer Graphic • Information Retrieval • Natural Language Processing • Machine Learning • Internet of Things • E-Commerce • Data Analytics and Big Data

**Track II:** Electronics • VLSI and Microelectronic Circuit Embedded Systems • System on Chip (SoC) Design • FPGA (Field Programmable Gate Array) Design and Applications • Electronic Instrumentations • Electronic Power Converters and Inverters • Control Theory and Applications • Robotics and Autonomous Systems • Intelligent Control • Optimal Control • Robust Control • Adaptive Control • Linear and Nonlinear Control Systems • Complex Adaptive Systems • Industrial Automation and Control Systems Technology • Modern Electronic Devices

**Track III:** Mobile Communication • Ad hoc networks • Body and personal area networks • Cloud and virtual networks • Cognitive radio networks • Cooperative communications • Delay tolerant networks • Future wireless Internet • Green wireless networks • Local dependent networks • Location management • Mobile and wireless IP • Mobile computing • Multi-hop networks • Network architectures • Network Security • Routing, QoS and scheduling • Satellite communications • Self-organising networks • Wireless multicasting, broadcasting and geocasting • Wireless sensor networks

#### Call for contributed papers

Prospective authors are invited to submit their full paper(s) electronically through EDAS. Papers will be reviewed by at least two referees for technical merit and content. Accepted papers must be presented at the conference by an author whose name will appear in the proceedings. For further details, and information on paper categories, please see our website.

Conference Web Site
http://www.ieee-iemcon.org
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http://ieee-iemcon.org/?page\_id=109
CONTACT INFO

General queries: conference@ieee-iemcon.org Satyajit Chakrabarti: secretary@ieee-iemcon.org Bob Gill: bob gill@bcit.ca