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IEEE OTTAWA NEWSLETTER - October 2012

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News Submission: write an email to the editor as pe

r the adopted format

IEEE Ottawa Section Website: http://ottawa.ieee.ca/

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A. IEEE Ottawa Section News & Events

1- IEEE Ottawa Section Annual General Meeting & Din ner October 19, 2012

This is an official announcement that the IEEE Otta wa Section AGM will be held on Friday, October 19, 2012, in Ottawa, and that the call for nominations is open to the IEEE Ottawa Section me mbership.

The IEEE Ottawa Section Nominations and Appointmen ts Committee proposes the following nominees, whom have agreed to serve if elected, as the 2013 I EEE Ottawa Section Executive Slate:

- Mr. Rami Abielmona, Ph.D., , P.Eng., Chair
- Mrs. Janet Davis, Vice-Chair
- Mr. Eric Karmouch, Ph.D., Secretary
- Mr. Jeffrey Arcand, Treasurer

The AGM will begin at 5:30PM (reception at 5:00PM) and be followed by Dinner (6:30PM) with a keynote speaker Senator Mac Marb, then entertainme nt by The Cowguys (Orbital Talent). Program and 1 ocation details

will follow under separate cover.

That information is posted on the section website a t: www.ieeeottawa.ca/aqm2012

Also, the call for awards - business and individual - nominations is open.

The details and the forms are available at: http://www.ieeeottawa.ca/publications/awards.

The deadline is October 10, 2012.

Sincerely,

Raed Abdullah, P.Eng., SMIEEE Chair, IEEE Ottawa Section Nominations and Appointments

and

Wahab Almuhtadi, P.Eng., SMIEEE Chair, IEEE Ottawa Section Awards Committee

2- The O3b Satcom System: Connecting to the Other Three Billion

Speaker: Neville Miller

Date/Time: Wed 24 Oct 2012, 7.30 - 9.30pm

Location: The Crowsnest, Naval Officer's Mess, 78 Li

sgar St., ottawa

Parking: On-street. arrive using Cartier St.

Registration: Pre-registration appreciated but not obligatory

Organizer: Hugh Reekie

Organizer e-mail: h.reekie@ieee.org

Organized by: Ottawa IEEE-AESS Chapter & IET-UK Ottawa Local Network

Url: http://www3.bell.net/max-com/ottawa.AESS.html

Abstract: Using non-geostationary lower satellite orbits, the transit-time latency is reduced. These Ka-band satellites offer a cost-effective al ternative for some specific communications needs. Nev Miller will describe the O3b system, which emb

races some novel ideas to meet the special needs

3- Software Barriers to Research in Emergent Behavi or

Speaker(s): Dr. David Fisher, Distinguished Visitor
Program - DVP

Date/Time: Thursday November 15, 2012 at 1pm.

Location: SITE 5084, SITE Building, University of O ttawa

Parking: Parking fees apply.

Registration: Free to attend, but registration is required. To ensure a seat,

please register by contacting Eric Karmouch (ekarmouch@ieee.org).

Organizer: Eric Karmouch

Organizer e-mail: ekarmouch@ieee.org

Organized by: Ottawa Section Computer Society Chapter

Url: http://www.ieeeottawa.ca/cs

Abstract:

Emergent behaviors are pervasive, but poorly unders tood, phenomena in many

fields including physics, biology, and the social sciences.

They include cascade effects, epidemics, phase tran sformations,

dissipative structures, and spontaneous synchronization.

Emergent properties are irreducible to properties of their

constituents, but instead arise from interactions a mong their constituents.

Agent-based modeling and simulation are essential to research in emergence,

but are impaired by limitations inherent in current software methods and languages.

This presentation proposes a new property-based pro

gramming paradigm that overcomes not only barriers to emergent research but to accur acy, reusability, and expressiveness in many computing domains.

4- A Visit to see a Canadian SmallSat under Test - at the CSA's David Florida Laboratory

Speaker: Charlie Gaier - our host

Date/Time: 2 - 3.30 pm Tuesday, 23rd October 2012 Location: Communications Research Centre, Carling A ve

Parking: on-site, after sign-in at Guard House Registration: by email to Hugh Reekie; cut-off is 5 Oct.

Organizer: Hugh Reekie

Organizer e-mail: h.reekie@ieee.org Organized by: AESS Ottawa Chapter

Url:http://www3.bell.net/max-com/ottawa.AESS.html#D

FL.visit.Oct%202012

Abstract: The IEEE is privileged to have a tour the Canadian Space Agency's

David Florida Laboratory, which is part of the Comm unications Research Centre

complex, Carling Ave. The NEOS-Sat is scheduled to be there for its test program.

Also the M3M-Sat is scheduled to arrive on 8 Oct for 60 days of testing.

There is no guarantee that both birds will be visi ble - Thermal Vac, Anechoic Chamber etc, may prohibit - but there is a likelihood that at l east one will be on show. The tour party is limited to 16 persons. Prior registration is a r equirement.

5- Battle Royale VI

Date/Time: November 3, 10:00 to November 4,

10:00

Location: Norm Fenn Gymnasium, Carleton Un

iversity

Parking: \$2/day (two days)

Registration: www.battleroyale.ca/br6

Organizer: IEEE Ottawa Student Branches Organizer e-mail: organizers@battleroyale.ca

Organized by: IEEE uOttawa, IEEE Carleton Univ

ersity, IEEE Algonquin College

Url: www.battleroyale.ca/br6

Abstract: Battle Royale VI is a LAN party that will include many computer games and

gaming console tournaments. The event lasts a full 25-hours over the

daylight-savings-change weekend. The goal of Battle Royale is to bring

together future engineers and computer scientists a cross the Ottawa

Region to share their gaming passion in a relaxed e nvironment. Hosted on

the lovely campus of Carleton University, this even t has become an annual

tradition for the university students in Ottawa studying not just

Engineering and Computer Science, but other disciplines as well. Battle

Royale offers a unique opportunity to companies to expose themselves to

over two hundred engineering and computer science s tudents from the

University of Ottawa, Carleton University, Algonquin College, and many

other schools. As in the past, we will be donating all profits made to

the Child's Play charity at CHEO.

6- Interoperability and Interference in Modern Rail way Systems and

its Instrumentation & Measurement Implications

Speaker: Dr. Andrea Mariscotti, Professor, University of Genova, Italy

Date: Friday, October 5, 2012

Time: 6:30 pm Refreshments, Registration and Networking, 7:00 pm-8:30 pm Seminar.

Place: Algonquin College, 1385 Woodroffe Ave., Sch ool of Advanced Technology, P-Building, Room P210. Parking: No fee after 5:00 p.m. at the Visitors' P arking Lots 8 (green) & 9 (red).

Please respect restricted areas. Map: to view the map, click here.

Admission: Free, but registration is strictly required. please register by e-mail

contacting: Branislav Djokic or Waha b Almuhtadi or Raed Abdulla

Organized by: IEEE Ottawa PES, IMS and RS&PEL Chapters, Ottawa Educational

Activities, and Algonquin College IEEE Student Branch

Url: http://www.ewh.ieee.org/soc/pes/ottawa

Abstract: The seminar will provide a review of the architecture and

elements of an electrified transportation system, including: AC

distribution and connection to the high voltage primary network,

substations and other machines (transformers), traction line and its

characteristics (imperfections, frequency response, etc.), trains and

vehicles as moving, time varying, highly distorting loads. Power Quality

phenomena will be covered: definitions and relation ships with similar

phenomena in the industrial sector: harmonics, inter-harmonics, flicker,

voltage fluctuations, transients, stability of the fundamental frequency;

applicable standards and requirements; methods for measurement and

evaluation. Other relevant phenomena, such as interference with safety

apparatus (signalling and telecommunications); applicable standards and

requirements, evolution of the European harmonizati on standards; methods

for measurement and evaluation will be addressed as well. Measurement

systems and processing methods will be discussed, i ncluding probes and

acquisition systems, their measurement performance, requisites,

utilization criteria; examples of algorithms and results: i) stability of

the fundamental frequency, ii) spectra of transient s, iii) time varying

harmonics and their tracking, iv) assessment and ce rtification of rolling

stock or single power converters; challenges and perspectives for

measurements in the transportation field: i) wirele ss instrumentation, ii)

networking of sensors, iii) need for unusual performances and

functionalities

7- ROUTES TO SUCCESS IN ACADEMIC RESEARCH: A PERSON AL PERSPECTIVE

Speaker: Prof. John Bandler , Life Fellow, IEEE, Fellow, Royal Society of Canada, Fellow, Canadian Academy of Engineering

Department of Electrical and Computer Engineering, , McMaster University, Hamilton, Ontario, Canada Date/Time: Wednesday, Oct. 3, 2012; 2:30pm - 4pm

Location: Room UC282, University Center, Carleton

University, Ottawa, K1S5B6

Parking: Meters

Registration: Free

Organizer: Ram Achar

Organizer e-mail: achar@doe.carleton.ca

Organized by: (chapters, branch...) : Carleton Univ

ersity, Faculty

of Engineering and Design (FED), Department of Electronics (DoE),

IEEE Ottawa Section, CAS/EDS/SSC, CPMT, AP/MTT, EMBS, EMC,

CI/SMCS, SP/OE/GRS, WiE and LMA Chapters

Url: http://www.doe.carleton.ca/seminars/index.php

Abstract: When you hear the words MIT, Berkeley, Harvard, Cambridge or

Oxford, what associations spring to mind: innovation, privilege,

influence, envy, pride, or the Nobel Prize winners on the faculty?

All communities are interested in the success of their local academic

institutions. Concerns extend far beyond the walls of the institutions:

like the stature of the faculty, the quality of the students, the value

of the education, the impact of the institution's research, and the

ability of the institution to attract leading faculty, good students, and

sufficient research grants.

What promotes successful research? Is it available facilities,

imagination, opportunity, leadership, IQ, charm, packaging, or good luck?

How can you measure success? Is it by the number of enrolled students,

the size of the team, the number of publications, t

he volume of citations, the size of the budget, the awards received, the n umber of fellowships gained in learned societies?

It may seem surprising how much of one's recognition in a field of

endeavor is attributable to the subjective perception of others. So, in

addition to the specifics of advanced research in a cademia, this talk

includes issues of impressions and subtext that are essential to human

behavior and discourse. Researchers must learn to n avigate the minefield

of ethics, over-exposure, secrets, confidentiality agreements, contracts,

collegial envy, and more.

Beware of "experts" who claim to see no future in y our proposed research.

And, rather than taking that well-trodden path and being instantly

understood and accepted, you should follow your pio neering instinct even

if you find yourself initially ridiculed and reject ed.

In suggesting ways of inspiring and managing succes sful research, I draw on personal successes and failures in both my techn ical and non-technical domains.

8- "Green RFID": an enabling technology towards the Internet of Things (IoT) world

Speaker(s): Dr. Luca Roselli

Date/Time: 2:30 pm - 4:30 pm., Thursday, October 18

, 2012.

Location: Carleton University, Department of Electronics (DoE),

Mackenzie Engineering Building, Room ME 4124, 1125 Colonel By

Drive, Ottawa, Ontario, Canada.

Parking: Parking fees apply

Registration: Free but required. To ensure a seat, please contact Qingsheng Zeng (qingsheng.zeng@crc.qc.ca)

Organizer: Dr. Qingsheng Zeng

Organizer e-mail: qingsheng.zeng@crc.gc.ca

Organized by: (chapters, branch...) IEEE Ottawa Ant ennas and Propagation

Society and Microwave Theory & Techniques Society (AP/MTT) Joint Chapter,

Electromagnetic Compatibility (EMC) Chapter, Electr on Devices Society,

Circuits and Systems Society, and Solid-State Circuits Society

(EDS/CAS/SSCS) Joint Chapter, Components, Packaging and Manufacturing

Technology (CPMT) Chapter, Computer Society (CompSoc), Engineering in

Medical and Biology Society (EMBS) Chapter, Instrumentation and

Measurement Society (IMS), Joint Chapter of the Technical Management

Council, Professional Communications Society, and Society on Social

Implications of Technology (TMC, PCS & SSIT), Life Member Group (LM),

Engineer in Transition Activities (EiT), IEEE Ottaw a Section (OS), and

Department of Electronics at Carleton University (D oE Carleton).

Abstract: A brief description of the present and fu ture scenario

correlated to ICTs will be illustrated. Environment al implication of

present societal and technological trends will be a

nalyzed in order to

address the most important and relevant issues. On the basis of this

analysis, RFID, as an enabling approach compatible with the described

scenario, will be introduced and motivated. Future environmentally

friendly technologies and architectures, suitable f or "green RFID"

implementation, will be introduced, namely: paper p
rinted circuits,

organic materials, chip-less tag, harmonic RFID, au tarkic sensor nodes,

CNT based RFID gas sensors and so on. Some applicat ion proposals will be

reported in order to illustrate the groundbreaking vision enabled by

"green RFID" approach; in particular it will be sho wn the potentiality of

the "green RFID" technologies toward the developmen t of a new concept of

indoor localization systems and assisted paths as well as the capability

of massive use of green RFID tags for extensive mon itoring and for

measurements in harsh environments where high numbers of wireless sensors

is needed without the possibility to recover them. These example

applications will be used to draw final considerations about future

developments, challenges and perspectives.

B. IEEE News

1. Senior Member Elevation

The following Ottawa members were elevated to Senio r Member grade in September 2012.

gram

IEEE Senior Member Program Page:

http://www.ieee.org/web/membership/senior-members/i
ndex.html

For details and updated news about Senior Membershi p elevation in Ottawa,

visit IEEE Ottawa Section Senior Members Page http: //ottawa.ieee.ca/sm

2. Engineer Wellness GoodLife Fitness Corporate Pro

Staying fit is the key to reducing stress, feeling healthy, increasing

your energy and enjoying an excellent quality of life. Members of

Engineering Institute of Canada (EIC) Societies, which includes IEEE,

students and family, can access the benefits of exercise and healthy

living at discount of more than 55% off regular prices to GoodLife

Fitness (Energie Cardio in Quebec and Nubody).

Please visit www.engineergoodlife.ca (username = ei c and password = goodlife) for details.

3. IEEE Member Group Insurance Program - Life, Professional Liability,

Accident, Disability and Travel

IEEE Member Group Insurance Program - Life, Profess

ional Liability,

Accident, Disability and Travel (www.ieeeinsurance.com/canada):

Regardless of employment status, these plans stay w ith you?whether you

are starting, switching or maturing in your career. As an IEEE member,

you benefit from the group buying power of the IEEE membership base. Take

a few minutes today to learn how these affordable plans, available

exclusively to IEEE members, can help make sure you have adequate

financial resources as your life changes and respon sibilities grow. I

think you will agree, the time invested will be wor thwhile.

4. New members orientation webinars

All new higher grade IEEE members are invited to participate in a New

Member Orientation Webinar session designed to help members get the most

out of their membership. These live Webinars, which include a 30 minute

formal presentation followed by Q&A, provide an overview of IEEE

membership and access instructions for members-only benefits and

services. Topics include establishing a Web account, setting up a profile

on memberNet, logging into myIEEE, networking oppor tunities, and much more.

Visit the Welcome to IEEE Web page

(http://www.ieee.org/membership_services/membership
/welcome.html) to

register for a New Member Orientation Webinar, typi

cally held on the fourth Thursday of each month in 2011: 24 March, 28 April, 26 May, 23 June, 28 July, 25 August, 22 September, 27 October, 22 November, and 20 December.

Webinars are held at both 9:00 AM ET and 3:00 PM ET on each day. Please e-mail Adrienne Hahn (a.hahn@ieee.org) for more information.

C. Non-IEEE News and Events/Announcements

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