



IEEE

**Ottawa
Section**



Annual Newsletter 2005

REPORT FROM THE SECTION CHAIR

This – our 61st year - has been another great year for the Ottawa Section of the IEEE. The second year in a row the Ottawa Section has been recognized for its outstanding programming and operations, last year on the regional level, this year on the international level with **The RAB Outstanding Section Award** for large sections. This award is the highest recognition achievable word-wide for a section.

Our profound THANK YOU goes to all the volunteers with their families and our supporting friends, public and private, who have been diligently committed over the years - in particular those who were active in 2004, the period for which the award was granted – and given their time, talent and resources to grow the entire IEEE Ottawa Section Community into the formidable engine that it is today.

Congratulations go to 4 of our esteemed members who have been honored as **EIC Fellows: Dr. Sunil Das, Dr. John Lodge, Dr. Hussein Mouftah and Dr. Dorina Petriu.**

Our Chapters, Affinity Groups, Student Branches and various committees have been very active and successful, see next pages. At the Section Level I'd like to report further:

- This year 21 of our Members have been elevated to Senior Member – Congratulations to all!
- The Carleton University Student Branch celebrates its 40th Anniversary this year – Congratulations to one of the most successful and largest student branches in Canada.
- The section website is now bilingual in most parts
- A petition to start a Women in Engineering (WIE) Affinity Group has been submitted
- A collaboration with CAAS for school projects has been started
- Our Robotics Competition for grades 7 and 8 is growing by leaps and bounds, - see below.

- Special upcoming events are the **Canadian Conference on Electrical and Computer Engineering 2006 – CCECE 2006** - and the **EIC Climate Change Technology Conference**, both in May 2006 here in Ottawa.

The IEEE is continually improving services to its members – please, review your IEEE membership options to obtain maximum benefit of belonging to the largest engineering organization in the world.

On a personal note, I have accepted the position of Dean of Technology at Lambton College in Sarnia and will not be able to serve with the Ottawa Section after December. I would like to thank the Section for welcoming me into the 'volunteer Fold' quite some years back and for offering so many splendid opportunities to participate, serve, learn, create new programs and, last and certainly not least, to lead and have fun together.



I encourage all of you to get engaged and volunteer – volunteering is most definitely a multi-path street, serving the community and offering a multitude of rewards. The Ottawa Section is very busy delivering outstanding programming and services, in particular with the 2 large conferences that are on the immediate horizon in May 2006, an excellent way to get involved.

All the best in your endeavors to you all.
Sincerely,

Maïke Luiken Miller, Ph. D.

Ottawa Section Chapters and Groups Report

Currently there are 17 technical Chapters in our Section, as well as other groups. Some representative Chapter briefs from the last year's activities are provided here:

AP/MTT: This chapter has had two technical meetings so far this year;

- Non-linear microwave transmission lines by Prof. Robert Harrison of Carleton University in Ottawa
- Antennas for Ultra-Wideband applications by Dr. Zhi Ning Chen from the Institute of Infocomm Research in Singapore.

The chapter is in the process of setting up its web page and updating its mailing list. Another event is planned for this fall.

AESS & VTS: These two chapters have run 2 meetings:

- "New Initiatives in Air Traffic Control" by Clint MacNeil, NAV-CAN Ottawa on Nov. 18 2004
- "In celebration of the Pioneers and Voyageurs: to Jupiter, Saturn, Uranus, Neptune and Beyond" by Dr. Bill Ward, MIT Lincoln Lab, Boston, MA on February 10, 2005

More meetings are planned for fall 2005.

CI: This chapter held five talks in the past year:

- "Corpus-based Learning of Analogies and Semantic Relations" by Peter Turney, NRC on February 25, 2004.
- "Neural Network Modeling of 3D Objects for Virtualized Reality Applications" by Ana-Maria Cretu of the University of Ottawa on May 05, 2004.
- "The heterogeneous neuron model and its use in hybrid neural networks within computational intelligence compound systems" by Julio Valdés, NRC on November 25, 2004.
- "Face recognition in video as a new biometrics modality and the appropriate associative memory framework" by Dmitry Gorodnichy, the chapter's past chair, on December 15, 2004.
- "How to Learn from a Stochastic Teacher or a Stochastic Compulsive Liar of Unknown Identity" by John Oommen of Carleton University on February 23, 2005.

Computer: Since the last AGM this chapter presented two talks.

- "Trustworthy Software Systems" by IEEE Computer Society Distinguished Visitor Larry Bernstein on December 20, 2004. This

presentation was very well attended with lots of questions and answers afterwards.

- "Security and Software: Obstacles and Opportunities" by Larry Korba, NRC Principal Research Officer on June 22, 2005. This talk was also well attended with plenty of audience-speaker interaction.

For the remainder of 2005, we are planning to have at least 2 more talks, one in September, and the one following most likely be in November or December.

BTS/ComSoc: During its last year of operation, ComSoc has organized several full day seminars. The seminars were focused on a variety of domains including: IPv6, Software Defined Radio (SDR), and Wireless Applications. Each seminar day gathered several speakers well known in their field and was usually followed by discussions related to the talks they presented. We also had a few seminars with only one speaker, such as the one on SNOET. ComSoc also continues the excellent collaboration with some local affinity groups and companies such as the Ottawa Wireless Cluster, Moda-Solutions, and Knowledge Bridge, to name a few. This June, during one of the seminar days, Bahram Zahir has been elected as the new chapter chair for the coming year. Robert Crawhall has been appointed as the new director of OWRA. ComSoc plans several technical events for the months to come: Communications in Power Systems standard seminar in September; Cyber-fraud, xDSL, ZigBee/RFID tutorial, Wavelets and Filter banks, Access Technologies.

EMC: This EMC chapter conducted one distinguished lecturer presentation with the title "Printed-Circuit-Board Radiation Measurement" by professor Dr.-Ing. Heyno Garbe from University of Hannover, Germany, on May 26, 2005. The event was well attended and the feedback received by the participants was very good.

EMS: this year a one day special seminar was held in spring 2005 on the topic of Climate Change. The specifics of the seminar can be found at ottawa.ieee.ca/ems Volunteers to help organise seminars are sought.

Educational Activities: Since the AGM 2004, this committee has organized four and supported two seminars/workshops/symposia in the fields of power systems, communications, instrumentation and measurements. It has continued to do so in cooperation with several of the Ottawa chapters, such as **PES**, **RS**, **IMS**, **DEIS**, and **ComSoc**. Also, preparations for a seminar in the fall on the *writing skills for engineers* are under way. The committee is

currently helping the organizing effort for the upcoming 5th IEEE/IEE Electrical Power Symposium 2005, scheduled for October 14, 2005, and the CCECE Conference in 2006. Some of the events are as following:

- An Optically Isolated Hybrid Two-Stage Current Transformer for Measurements at High Voltage, by Dr. Branislav Djokic, NRC
- Communications in Power Systems and International Standards, Karlheinz Schwarz, NettedAutomation, Germany, Christoph Brunner, ABB, Switzerland
- Understanding Power Phenomena in Power Systems, by Prof. Dr. Leszek S. Czarnecki, IEEE Fellow, Louisiana State University.
- Power Systems and the role of Instrumentation and Measurements
- Measurement of Space Charge in High Voltage Polymeric Insulation with the Thermal Step Method, by Dr. Mahmoud Abou-Dakka, NRC, Ottawa
- Electrical Power Symposium 2004, "Ontario's Tough Electricity Choices"

GOLD: GOLD Ottawa has held networking events such as pub evenings and been involved in student events such a professional development activities at Carleton, University of Ottawa, Algonquin College and l'Université du Quebec en Outaouais. Visit <http://ottawa.ieee.ca/gold/> for more information and upcoming events and e-mail mvandelst@ieee.org to join our mailing list.

LEOS: This chapter has had an active year with several distinguished speakers presenting at our technical meetings. These included presentations on "Signal Processing with Optical Fibers", "Ultrafast Laser Bragg Gratings Fabrication", "Evolution of Femtosecond Frequency Combs". Continuing our tradition of organizing workshops in collaboration with OPRA, NRC, CRC, NCIT, OPC, Carleton University, the University of Ottawa, Algonquin College and others like Moda-Solutions, we have organized a large and well-attended "Nanotechnology in Biomedical Applications" workshop in April. Our meetings, particularly in the form of workshops, are well attended. We are planning to continue these traditions which prove to be popular among our members and guests.

SP/OE/GRS: This joint chapter organized two seminars this year. The first seminar was given by Dr. Heping Ding with the title "Backward Compatible Wideband Voice over Narrowband Low-Resolution Media". The second seminar was given by Dr Wail

Gueaieb on the topic "A Robust Hybrid Intelligent Position/Force Control Scheme for Cooperative Manipulators".

Retired and Life Member Group: This group remains an informal activity. Two events were run over the year to suit retired members, with financial support from technical societies (see AESS & VTS).

Robotics Competition: This was the 3rd IEEE Ottawa Robotics' Competition. The event is targeted towards grades 7 & 8 schools. This year each team had 9 weeks to build a robot using a Lego Mindstorms kit to play hockey. The event has been very successful commencing originally with 4 local schools and growing to 14 this year. We would like to thank our supporters for the past 2 years. The University of Ottawa Faculty of Engineering, Carleton University Faculty of Engineering and Department of Systems Design and Engineering, Algonquin College, Hydro Ottawa, and the Virtual Classroom Program a joint effort between The Communications Research Centre and The National Research Council. Please visit the IEEE Ottawa Robotics web page at <http://ottawa.ieee.ca/robotcomp/2005/>. As this activity is growing, a large number of volunteers are needed to support the projects at the schools. As well, sponsorships are required to sustain this project. Please contact Rodrigo Gracia, Robotics Competition Chair, rogracia@ieee.org.

IEEE Carleton Student Branch: Established in 1965, this student branch takes great pride in celebrating its 40th anniversary this year. There are annually over 100 volunteers helping out in day-to-day activities such as staffing an office for various student services and organizing industry tours, technical speakers, design competitions, paper competitions, and technical training sessions. IEEE Carleton has been helping out the IEEE Ottawa Section, for example, volunteering at the Power Symposium and at the Annual General Meeting. A highlight this past year included hosting SPAC on January 20, 2005. This conference gave engineering students information about various career paths and offered them an excellent networking opportunity with industry and academic representatives. More information about the IEEE Carleton Student Branch can be found at <http://www.ieee.engsoc.org>.

PLANNED ACTIVITIES 2005-2006

The following are the major events planned for the near future in Ottawa section. For an updated list of the upcoming events in Ottawa section at any time, please visit the Ottawa section newsletter at <http://ottawa.ieee.ca/news/>.

CCECE 2006

The Canadian Conference on Electrical and Computer Engineering is to be held in Ottawa 7-10 May 2006. This is the flagstone annual conference for IEEE Canada and the Ottawa Section is the hosting Section this coming year. We encourage your participation. Please visit our Web site at <http://ieee.ca/ccece06/>.

EIC CCC 2006

EIC Climate Change Technology Conference to be held in Ottawa 9-12 May 2006. If you would like to volunteer and support our local organizing committee, please contact Grefford@ieee.org. Details for this event are available at <http://www.ccc2006.ca/eng/index.html>.

EPS 2005

The 5th annual Electrical Power Symposium 2005 is to be held in Ottawa on Friday, October 14, 2005. For more information on this event visit: <http://www.ewh.ieee.org/soc/pes/ottawa/EPS2005/>.

HAVE'2005

The IEEE international workshop on Haptic Audio Visual Environments and their Applications is to be held in Ottawa 1-2 October, 2005. Details are available at: <http://www.discover.uottawa.ca/have2005/>

ROSE 2005

The IEEE international workshop on robotic and sensor environments is to be held in Ottawa 30 September – 1 October 2005. For details visit: <http://www.site.uottawa.ca/rose2005/>.

IEEE Ottawa Executive 2005

The current IEEE Ottawa Section executive officers are as following:

Chair: Maike Luiken Miller, maike.miller@ieee.org,
Vice-Chair: Ramiro Liscano, rliscano@ieee.org,
Treasurer: Raed Abdullah, raedabdullah@ieee.org,
Secretary: Branislav Djokic, branislav@ieee.org

For a complete list of the Ottawa section officers please visit: <http://ottawa.ieee.ca/officers.html>.

IEEE Ottawa Elections 2005

Your local list of officers proposed by the nomination committee for the coming year:

Chair: Branislav Djokic, branislav@ieee.org,
Vice-Chair: Wahab Almuhtadi, almuhtadi@ieee.org,
Treasurer: Raed Abdullah, raedabdullah@ieee.org,
Secretary: Amir Ghavam, ghavam@ieee.org

For information about the IEEE 2005 annual election visit IEEE's homepage (www.ieee.org) and select "IEEE Annual Election".

Section's E-Communications

<http://ottawa.ieee.ca/publications.html>

Web

The Ottawa Section website is available at <http://ottawa.ieee.ca> and provides you with contact information and details on the Section's organization.

Newsletter

The current news and upcoming events in Ottawa Section are available on the Section's events page at <http://ottawa.ieee.ca/news/>. We also announce our news and upcoming events via email to the IEEE members in the Ottawa area. You can make sure that you receive our e-newsletter by keeping your IEEE profile up to date (see below). For more information about our newsletter visit: <http://ottawa.ieee.ca/news/about.html>.

Contact: ottawanews@ieee.org

Updating Your IEEE Profile

You can update your contact information at IEEE using one of the following options:

1. IEEE Web Contact Update
<http://services1.ieee.org/membersvc/coa/intro.htm>
2. By phone: +1 732 981 0060
3. By mail: IEEE, 445 Hoes Lane, PO Box 1331, Piscataway, NJ 08855-1331 USA
4. By fax: +1 732 562 5445

IEEE Email Alias with Virus Scanning

We strongly recommend to all members to use the email alias service. With the help of this service you stay better connected even when you change your email address. It is free for members and is easy to acquire, remember, and update. Visit: <http://eleccomm.ieee.org/>.

List of Chapters and Groups

The following table presents a list of our chapters and groups. To find out more about them and their activities please visit <http://ottawa.ieee.ca/officers.html>.

CHAPTER	CHAIR	URL
AESS	Hugh Reekie, h.reekie@ieee.org	http://members.allstream.net/%7Emax-com/ottawa.AESS.html
AP/MTT	Jasmin Roy, jasmin.roy@crc.ca	http://members.allstream.net/%7Emax-com/ottawa.mtt.html
BTS/ComSoc	Maike Luiken Miller - maike.miller@ieee.org	http://ottawa.ieee.ca/comsoc/
Computer	George Yee, g.m.yee@ieee.org	http://ottawa.ieee.ca/cs/
CI	Rami Abielmona, rabiemo@ieee.org	http://ottawa.ieee.ca/ci/
DEIS	Laurent Lamarre - Lamarre.Laurent@ireq.ca	
EDS/CAS/SSCS	Ram Achar, achar@doe.carleton.ca	http://ottawa.ieee.ca/eds_cas_sscs/
EMCS	Syed Bokhari, bokhari@ieee.org	
EMS	Jean Couillard, couillard@management.uottawa.ca	http://ottawa.ieee.ca/ems/
EMBS	Boguslaw J. Jarosz, jarosz@physics.carleton.ca	http://ottawa.ieee.ca/embs/
IMS	Voicu Groza, vgroza@ieee.org	
LEOS	Andrei Skirtach, askirtach@ieee.org	http://ottawa.ieee.ca/leos/
PES	Wahab Almuhtadi, almuhtadi@ieee.org	http://www.ewh.ieee.org/soc/pes/ottawa/
Reliability	Raed Abdullah, RaedAbdullah@ieee.org	
RAS/CSS	Jurek Sasiadek, jsas@ccs.carleton.ca	
SP/OE/GRS	Miodrag Bolic, mbolic@site.uottawa.ca	http://ottawa.ieee.ca/grsoesp/
VTS	Hugh Reekie, h.reekie@ieee.org	http://members.allstream.net/%7Emax-com/ottawa.vts.html
GROUP	CHAIR	URL
Educational Activities	Branislav Djokic, branislav@ieee.org	http://ottawa.ieee.ca/ea/
EiT	Wahab Almuhtadi, almuhtadi@ieee.org	
AICN	Gidon Mida, gmida@ieee.org	
GOLD	Mark VanDelst, mvandelst@ieee.org	http://ottawa.ieee.ca/gold/