



IEEE Ottawa Section Report to The Annual General Meeting 2008

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- AESS Aerospace and Electronic Systems Society
- AP/MTT Microwaves/Antennas/Propagation Society
- CI Computational Intelligence Society (formerly Neural Networks)
- CompSoc Computer Society
- ComSoc & BTS Joint Chapter of Communications Society and Broadcast Technology Society
- CPMT Components, Packaging and Manufacturing Technology Society
- DEIS Joint Ottawa-Montreal Chapter of Dielectrics and Electrical Insulation Society

- EDS, CAS, & SSCS Joint Chapter of Electron Devices Society, Circuits and Systems Society, and Solid-State Circuits Society
- EMC Electromagnetic Compatibility Society
- EMBS Engineering in Medicine and Biology Society
- IMS Instrumentation and Measurement Society
- <u>LEOS Lasers and Electro-Optics Society</u>
- PES Power and Energy Society
- RAS & CSS Joint Chapter of Robotics & Automation, and Control Systems Societies
- RL Reliability Society
- SP, OE, & GRS Joint Chapter of Signal Processing, Oceanic Engineering, and Geoscience and Remote
 Sensing
- TM, PCS, & SSIT Joint Chapter of the Technical Management Council, Professional Communications Society, and Society on Social Implications of Technology
- VTS Vehicular Technology Society

Affinity Groups

- AICN Alliance of IEEE Consultant Network
- GOLD Graduates of the Last Decade
- LM Life Member
- WIE Women in Engineering

Student Branches

- Algonquin College
- Carleton University
- University of Ottawa

IEEE Ottawa Executive Officers 2008

IEEE Ottawa Elections 2009/ NEW Slate of the Executive Officers 2009

Section's E-Communications

List of Executives

Ottawa Section Chair's Report

Dear IEEE colleague,

The IEEE Ottawa Section is yet again proud to celebrate another remarkable and successful year full of many outstanding activities and events covered several topics in various areas ranging from biomedical engineering, robotics, computers and telecommunications to aerospace systems, reliability, electric power and consumer electronics among others. Behind the success of organizing these activities and events is the dynamic force of hard-working, dedicated and diligent volunteers the executives of the Section, 18 Technical Chapters, 11 Committees, 4 Affinity Groups and 3 Student Branches. Thus makes the IEEE Ottawa Section to continue as the most active and vibrant section in IEEE Canada (Region 7) and one of the best sections across IEEE worldwide (Region 1 – Region 10). Therefore, IEEE Canada presented for the second time in a row an "Exemplary Award for the Large Section" to the IEEE Ottawa Section in recognition of its outstanding achievements thus becoming the best 2007 Section in Canada. Last year IEEE Canada presented to the Section the "2006 Exemplary Award for the Large Section". In previous years, the IEEE Ottawa Section twice been recognized with two most prestigious IEEE awards at the international and regional levels.

This year 2008 marks the 65th anniversary of establishing the IEEE Ottawa Section which currently has more than 2300 individual members including Affiliates, Associate Members, Fellows, Life Fellows, Life Members, Life Seniors, Members, Senior Members, Student Graduates, and Student Members. The Section continues the highly set standards of organizing a variety of technical, professional, educational and social activities to serve its members and the engineering and scientific community. Since our last AGM (28 Nov. 2007), the major milestones are:

- The 8th Electrical Power and Energy Conference (EPEC) 2008 (www.ieee.ca/epec08) held on October 6-7, 2008 and organized by IEEE Canada, Vancouver Section with co-technical sponsorship of Ottawa Section. The EPEC 2008 theme focused on "Innovation in Energy Resources". EPEC 2008 has become now an international conference. It is an extension of the successful consecutive 7 year events of Electrical Power Symposia (EPS 2001-2006) (e.g. refer to www.ieee.org/EPS2006) founded by IEEE Ottawa Section, PES Chapter, RS Chapter and Educational Activities; and the Electrical Power Conference (EPC) 2007 (http://www.ieee.ca/epc07) organized by IEEE Canada, Ottawa Section, and Montreal Section. The next EPC 2009 will be held in Montreal in October 2008 by IEEE Canada, Ottawa Section and Montreal Section with co-technical sponsorship of Ottawa Section. And the EPC 2010 will be held in London, Ontario in October 2010 by IEEE Canada, Ottawa Section and Montreal Section with co-technical sponsorship of Ottawa Section.
- The 2008 Workshop on Adverse Response Monitoring (WARM 2008) was held on February 21 22, 2008 in Ottawa http://www.ottawa.ieee.ca/ims/warm2008 and organized by IEEE Ottawa Section, Biosign Technologies, IEEE Ottawa Instrumentation and Measurement Society Chapter, IEEE Ottawa Section Educational Activities, and Engineering in Medicine and Biology Society Chapter. WARM 2008 had theme: Patient Safety; topic: Adverse Response to Medication; scope: Instrumentation & Measurement; and goal: Find useful solutions (Report). It had high attendance and presenters from Europe, USA & Canada. WARM 2008 is an extension to the Noninvasive Blood Pressure Measurements & Standardization Workshop 2007 that was held on February 2, 2007 in Ottawa http://ottawa.ieee.ca/ims/BPW2007. The next workshop "Self Monitoring, Analysis, and Reporting Technologies for Adverse Reaction to Medication (SMART ARM)" will be held in February, 2009 in Ottawa.

- 3. IMS Chapter, in conjunction with the IEEE I&M Society, and University of Ottawa, and with the cotechnical sponsorship of IEEE Ottawa Section organized a two-day IEEE International Workshop on Medical Measurements and Applications (MeMeA 2008) on May 9-10, 2008, at University of Ottawa. The IEEE Blood Pressure Committee (formed in 2007) held its second meeting after MeMeA workshop on May 10, 2008.
- The 6th annual IEEE Ottawa Robotics Competition was held on May 25, 2008 at University of Ottawa. The competition was sponsored by the IEEE Ottawa Section, SITE, Faculty of Engineering Ottawa U, Larus Technologies Corp, Allen Vanguard, and Spectrum Education,. The event is targeted towards grade 7 & 8 students by presenting a fun and instructive approach to problem solving. This year each team had 9 weeks to design and build an autonomous robot using a Robolab LEGO MINDSTORMS kits. In teams of five to ten, they learn engineering concepts with the help of a mentor and come together to produce a working prototype. 24 teams (senior and junior) from 8 local schools took the challenges. Please see more details at http://orc.ottawa.ieee.ca.
- The IEEE FPGA Workshop 2007 ("FPGA design flows & programming competition kickoff" and "Innovation implementation: challenges and rewards") is organized by IEEE Ottawa Section, EMS Ottawa Chapter, and Section Ed. Activities, in conjunction with CMC Microsystem's CWSOC 2007. The workshop is held on October 16-17, 2007 at Carleton University, and Crown Plaza Hotel, Ottawa. Please see more details at the Workshop website http://ottawa.ieee.ca/ems/fpgaworkshop.
- 6. The IEEE Eastern Ontario Student Paper Competition was held on March 31, 2008. This year, it is organized by Carleton U Student Branch, and sponsored by IEEE Ottawa Section (\$650) and Kingston Section (\$150). Winners received prizes and certificates: 1st place is Queens University, 2nd place is Royal Military College, 3rd place is Carleton University, 4th place Algonquin College and 5th place is University of Ottawa.
- International Workshop on RObotic and Sensors Environments (ROSE 2008), October 17-18, and The 7th IEEE International Workshop on Haptic Audio Visual Environments and Games (HAVE 2008), October 18-19, 2008. Also, IEEE Ottawa Section is the Co-technical Sponsor for the "Canadian Workshop in Information Theory (CWIT' 2009)" that will be held in Ottawa in May 13- 15, 2009. The IEEE Ottawa Section provided a technical co-sponsorship to the 42nd IEEE International Carnahan Conference on Security Technology ICCST 2008 conference that held in Prague, Czech Republic, on October 13-16, 2008. This is an expansion of our activities and reaching out to another continent, which speaks highly of the quality of the contact established and of the assistance provided to the IEEE International Carnahan Conference. The IEEE Ottawa Section will be the technical co-sponsor for the 43rd IEEE International Carnahan Conference on Security Technology (ICCST) that will be held in Zurich, Switzerland in October 2009 and the 44th ICCST 2010 in San Francisco, CA, USA in October 2010.
- 8. IEEE Ottawa Student Branches of Carleton University, Ottawa University and Algonquin College held IEEE Connects 2007 on Oct. 12, 2007 under the theme "From Backpack to Briefcase." There were 3 speakers (Rasmus Lerdorf, Author of PHP, Yahoo! Inc., Elza Seregelyi President, Elza Seregelyi & Associates Inc., and Anne McKenna, Leader, Global University Relations, Nortel) at this event, followed by an hour of networking opportunities for the sponsors, employers and students http://www.ieeeconnects.com/. Next event will take place in Ottawa on Friday Feb 27, 2009, @ 6pm.
- **9.** IEEE Ottawa Section participated with 8 delegate in the 2008 Section Congress from19-22, 2008 in Quebec City. The Section delegates went with 18 recommendations that were suggested by Section members to improve the IEEE.

- 10. EEE Ottawa Section is preparing to bring the IEEE International Conference on Communications to Ottawa in 2012. We rare competing against Dubai and other major American, European and other cities from around the world for getting this conference. The estimated number of the conference attendees is 1500 to 2500. The conference will have a significant impact in regaining the reputation of the Canadian telecom and high tech companies that are facing challenges during these recent years and will bring revenue to Ottawa business community and would raise the profile and visibility of local industry. This year conference (ICC 2008) was held in Beijing, China www.ieee-icc.org/2008. ICC 2009 will be held in Dresden, Germany www.ieee-icc.org/2010, ICC 2010 will be held in Cape Town, South Africa www.ieee-icc.org/2011, and hopefully ICC 2012 will be held in Ottawa Canada..
- 11. The IEEE Ottawa Section Region 7 (Ottawa, Ontario, Canada) and the IEEE Twin-Cities Section Region 4 (Twin-Cities, Minnesota, USA) have signed a "Sister-Section Agreement" on the 21st and 22nd of September, 2008 in Quebec City, Quebec, Canada. The agreement was signed by Wahab Almuhtadi Ottawa Section Chair and Arun Kumar Twin Cities Section Chair and approved by Ferial El-Hawary IEEE Region 7 Director and Wilson IEEE Region 7 Director and officially announced at the 2008 IEEE Sections Congress held in Quebec City on the 22nd of September, 2008. The executives of the two sections agreed to communicate and share experiences, plus collaborate and cooperate in future events between both sections, their chapters, affinity groups, student branches and committees. To accomplish great objectives for IEEE, this partnership agreement will bring a very fruitful cooperation and reap dividends on what can be accomplished with the resources of both Sections. For more details please click here to view the agreement.
- **12.** Continuous collaboration with other IEEE Sections of R-7, Engineering Institute of Canada (EIC), OCRI, IEE/IET Ottawa Branch, PEO Ottawa Chapter, Canadian Academy for the Advancement of Science, Ottawa Talent Initiative, and also building relationship with the Partnership Group for Science Engineering (PAGSE) and Royal Society of Canada (RSC).
- **13.** Since the last AGM, some of the Section members have been recognized for their achievements and promoted into IEEE Fellows. So Congratulations to Dr. Ivan Stojmenovic, IEEE-F, Ottawa, Ontario for contributions to data communication algorithms and protocols for wireless sensor and ad hoc.
- **14.** As of Sept. 2008, eighteen members have been elevated to Senior Member level. The total number of Senior Members in the Ottawa Section (as of Sept. 2008) is 201 a 7% increase from last year. About a dozen more people are in the queue for potential elevation in 2008 (expected total number as of Nov. is 25 SM).
- **15.** The IEEE Ottawa Section worked successfully in achieving the Section goals of year 2008 as well as the IEEE Canada 2008 Goals and Measurable.
- **16.** Furthermore, our Ottawa Chapters, Committees, Affinity Groups, and Student Branches have been actively organizing several successful technical and other meetings, some presented by well-known IEEE Distinguished Lecturers. For more details on the activities, please see the following pages.

Volunteers are the section's assets and volunteering is the key to true benefit from membership in the IEEE. There is always a shortage of volunteers and as a section member you are most welcome to contribute to our continued success as the best section in Canada. A lot of opportunities are available where you could serve as an executive/officer in your chapter, affinity group, student branch or in any Section committee. Also, there are opportunities that need more hands on-board such as our bid for the International Conference on Communications 2012, and other events that help protect our employability. The Ottawa Section has become a competitor for drawing high caliber international conferences, and a leader in trying new ideas.

Please, join us and devote a few hours a month so we can achieve more as a professional and successful engineering society.

I would like to thank everybody at the Section Executive for their support and hard work, and to our volunteers for their participation in many activities of this vibrant Section. Also, I would like to thank our sponsors, supporters and friends for their financial contributions to support the Section activities.

Finally, I turn to the tireless executive and say thank you for your strong commitment and congratulations on your great accomplishments. It was a great experience working with you. Though I'm passing the torch, I will still be committed to you and our collective success. I turn to my family and say, thank you for supporting me during my tenure and continued work for the IEEE.

Sincerely,

Dr. Wahab Almuhtadi, P.Eng., Chair of IEEE Ottawa Section www.ottawa.ieee.ca



L-R-Bottom-Up: Y. Hussain, P. Raman, B. Djokic, W. Almuhtadi, Gh. Kadri, Q. Ye, F. Khan, K. Liu, Sh. Nijhawan, G. Yee, V. Narasimhan, J. Valdes, Jurek Sasiadek, A. Gupta, S. Rajan, R. Abielmona, R. Abdullah, V. Groza, A. Quirt, A. Herrera, C. Plett, B. Christian, Y. Pakzad, H. Reekie, H. Mouftah, C. Cantlie, QJ. Zhang, J. Grefford, T. Lavrisa

Committee Reports

Annual General Meeting (AGM) Planning

Chair - Raed Abdullah - Raed Abdullah@ieee.org

Approximately 200 members and guests attended the 2007 AGM held at the Hampton Inn on Nov 28, 2007. Keynote Speaker Mr. Paul Bush, VP, Broadcasting & Corporate Development at Telesat informed and entertained everyone on "The Evolution and Trends of Satellite Communications."

The meeting-dinner format was a pilot for our section into a new AGM format. Over 75% of attendees preferred this format to the reception type as it provided more value and was best use of time. The section felt that for the same budget as a reception, and with a contribution from members, the members would benefit more, thus the same format will be adopted for the 2008 AGM.

For the 2008 AGM, we are honoured to host Mr. Rod Bryden, President and Chief Executive Officer or Plasco Energy Group Inc., as our keynote speaker.

Awards

Chair - Wahab Almuhtadi - almuhtadi@ieee.org

IEEE Ottawa Awards http://ottawa.ieee.ca/awards.html

The Award Committee is working closely with the chapters, other committees, affinity groups, student branches of Ottawa Section as well as with OCRI, Academia and Industry for nomination individual, organizations, volunteers forth the IEEE Ottawa Awards. T the winners of this year will be announced at the AGM 2008 on Novemebr11, 2008.

The winners for IEEE Ottawa Section Awards for year 2007 were as follows:

The best Ottawa power-tech/high-tech companies to be recognized at the AGM 2007:

Brookfield Power for successful development and operation of hydroelectric green power generating stations. **Group IV Semiconductor Inc.** for innovation and development of lamps using silicon thin-film emitter technology (Solid State Lighting).

Thermal Energy International Inc. for innovative technology and providing custom energy and emission reduction solutions.

International Datacasting for providing innovative products for distribution of audio, video and data via satellite systems.

Nakina Systems for providing innovative management solutions to telecommunications and data networks.

Sensors Stellar Corneration for innovative solutions and providing outdoor perimeter intrusion detection sensors and

Senstar Stellar Corporation for innovative solutions and providing outdoor perimeter intrusion detection sensors and security systems.

Telesat for innovative solutions and providing the most reliable, secure satellite communications.

The Ottawa organizations/companies to be recognized at the AGM 2007:

Biosign Technology for supporting and sponsoring the IEEE Ottawa Section activities **Ontario Centres of Excellence** for building strong industry and academic R&D relationships and accelerating the commercialization of innovations.

Bylaws

Chair - Branislav Djokic - branislav@ieee.org

Kexing Liu - Kexing.liu@ieee.org

IEEE Ottawa Bylaws http://ottawa.ieee.ca/bylaws.html

Communications / Publications

Chair - Mohammed Elbadri - melbadri@ieee.org

E-Notice - Editor: Khalid Mahmood - kmahmood@ieee.org

Mailing list: Ricardo Villalobos - rvillalobos@ieee.org

IEEE Ottawa Communications / Publications http://ottawa.ieee.ca/publications.html

The Communications & Publications Committee takes care of the section website, the e-newsletter and the mailing lists. This year, the monthly and annual newsletters were archived and presented for display to the public. The committee is also undertaking a French-language translation of the website, as well as a more automated entry mechanism for its chapter officer listings and event disseminations.

Educational Activities

Chair - Branislav Djokic - branislav@ieee.org
IEEE Ottawa Educational Activities http://ottawa.ieee.ca/ea/

On Dec. 05, 2007, the IEEE Ottawa Section Educational Activities organized, in conjunction with the Ottawa RCS, AESS, PES, RS, and IMS Chapters, a seminar "New Developments in Cooperative Control with Application to Formation Flying" presented at University of Ottawa by Dr. Amir Aghdam, professor at Concordia University in Montreal.

Educational Activities supported the IEEE Ottawa Workshop "Patient Safety: Adverse Response to Medication" WARM 2008 which was held on Feb. 25-26, 2008 at Centrepointe Theatre in Ottawa.

Educational Activities is organizing, in conjunction with the Ottawa IMS, PES, and RS Chapters, a seminar "DC and AC Programmable Josephson Voltage Standards: applications, achievements and limitations" by Dr. Alain Rüfenacht of National Institute of Standards and Technology, Boulder, Colorado, scheduled for Oct. 21, 2008 at the National Research Council in Ottawa.

Engineers in Transition

Chair - Colin Cantlie - colin.cantlie@ieee.org Alan Quirt - aquirt@consysconsult.com

The Engineers in Transition Committee attended the executives meeting of the Section. The EiT submitted a proposal for training programs that will serve and help unemployed IEEE engineers in Ottawa to gain new skills.

Membership Development

Chair - Jennifer Ng (S'91 M'95 SM'07) - jng@ieee.org Past Chari - Vijay Narasimhan - vijay narasimhan@ieee.org

Website http://ottawa.ieee.ca/sm/

Our Section has grown by more than 10% since the start of the year, and now comprises over 2200 members, including approx. 33 fellows, 201 senior members, 1371 full members, 80 associates, 137 graduate student members, and 126 student members, representing over 500 companies and institutions in the Nation's Capital. Members are the lifeblood of IEEE Ottawa Section; it is you who make our many events successful. This is why the entire membership development team, including our local representatives Vijay Narasimhan and Jennifer Ng, are constantly working to deliver benefits that fulfill your diverse needs.

In 2008, IEEE launched a new service, MemberNet, a professional networking tool for linking you with other IEEE members with similar interests. Learn more about MemberNet and all of your other online benefits by logging on to http://www.myieee.org today. Also, thanks in large part to the efforts of John Grefford, former chair of IEEE Ottawa Section, IEEE has negotiated a new home and auto insurance package for our Canadian members, in addition to the existing portfolio of life and travel insurance benefits. Stay tuned for more information arriving to your mailbox soon! We encourage you to bring your friends to local meetings and workshops to share your positive IEEE experiences with your colleagues and take advantage of our memberget-a-member program: receive a \$15 credit on your IEEE member invoice for each higher-grade member you recruit.

If you need more information about any of your benefits, or if you would like a member of our team to attend an event at your place of work to talk about the benefits of IEEE membership, contact the above.

Nomination

Chair - Branislav Djokic - branislav@ieee.org

John Grefford - Grefford@ieee.org

Tom Lavrisa – lavrisa@ieee.org

Robotics Competition

Chair - Rob Woolley - rcwoolley@ieee.org

Vice Chair - Rami Abielmona - rabielmo@ieee.org

Ottawa RoboComp Webpage http://orc.ottawa.ieee.ca/

The Robotics Competition Committee held in 2008 the 6th IEEE Ottawa Robotics Competition. The event is targeted towards grade 7 & 8 schools. This year each team had 9 weeks to build a robot using a Lego Mindstorms & NXT kits to solve a maze (junior competition), traverse an obstacle course (senior competition), and sumo wrestling (NXT competition). On Sunday May 25, 2008, the IEEE Ottawa Section ran the three challenges at the SITE Building of the University of Ottawa. The competition, sponsored by SITE and the Faculty of Engineering at the University of Ottawa, was a huge success. We would like to also thank our industrial sponsors: Larus Technologies Corporation, Allen Vanguard, and Spectrum Education, for their continued support.

This year, we had 24 teams from 8 local schools, with 6 NXT teams, 8 senior teams, and 10 junior teams. 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. More information can be found on the competition's IEEE web site: http://orc.ottawa.ieee.ca. Contact: Rob Woolley, Robotics Competition Committee Chair, rcwoolley@ieee.org.

Senior Membership

Chair - Jennifer Ng (S'91 M'95 SM'07) - jng@ieee.org
Past Chair - Wahab Almuhtadi - almuhtadi@ieee.org
IEEE HQ Senior Membership Website http://ottawa.ieee.ca/sm/

The Ottawa Section Senior Membership Committee was re-organized in May 2008 to include Jennifer Ng, who recently moved back to the area from Region 1 (New Hampshire). She was appointed as the Chair of this committee and the other committee members are Wahab Almuhtadi, David Coll, Sreeraman Rajan and Calvin Plett. The committee now has a streamlined process on how to guide and support the applicants through the Senior Membership elevation. A new website is now available (http://ottawa.ieee.ca/sm). With the new leadership and process, the Ottawa Section had now 201 members (~7% increase since last year) and we have about a dozen more people in the queue for elevation this year. In the next year, we plan to have a special workshop event for eligible members to meet and get their applications started. Please check the new website for more information and news!!

Chapter Reports

AESS - Aerospace and Electronic Systems Society

Chair - Hugh Reekie - (613)728-5343 (day & evg) - h.reekie@ieee.org

Vice Chair - Mel Walker - melwalker@igs.net

Ottawa AESS Chapter http://members.allstream.net/~max-com/ottawa.AESS.html

The AESS Ottawa Chapter has run a number of interesting meetings over the last year. Some were "opportunistic" - making the most of a visitor to town (eg Google, Astronomy Presentations).

- 1. What's up at Google? Neil Fraser Dec 2007
- 2. MEOSAR a New Search & Rescue Satellite System Jim King, CRC Jan 2008
- 3. Radio Astronomy in Canada Ken Tapping, Penticton BC May 2008
- 4. Aircaraft Navigation Session: Oct 2008
- 5. The Evolution of Aircraft Avionics Myron Kayton, California AESS Distinguished Lecturer
- 6. Air Navigation in the Yukon, WWII Ernest Brown

TOP

Chapter continues to run worthwhile specialist meetings, with attendances from 12 - 50 (the Google meeting).

AP/MTT - Microwaves/Antennas/Propagation Society

Chair - Qiubo Ye - qiubo.ye@crc.ca

Vice Chair - Kin Sze - kinsze@ieee.org

Ottawa MTT/AP Society Chapter http://www.ottawa.ieee.ca/ap mtt/home/

The Chapter activities during Nov. 2007 – Oct. 2008

- 1. List of presentations
 - Minimizing Power Amplifier Memory Effects, Speaker: Dr. Allen Katz
 - Title of Paper2: Advances in Millimeter-wave Linearization, Speaker: Dr. Allen Katz
 - "Own or be Pwned" ¬ A little goes a long way..., Speakers: Ozan Gonenc and Ryan Thomas
 - Fools Gold or Pay Dirt Is Network Scanning Detection a Worthwhile Activity? Speaker: David Whyte
 - UWB Antennas and Channel Characteristics, Speaker: Werner Wiesbeck
 - 3D Propagation Modeling and Characteristics for High Speed Mobiles, Speaker: Werner Wiesbeck
 - Mechanical Reliability in Electronics, Speaker: D. Hugh M. Reekie
 - Broadband Electromagnetic Environments and Protection Standards, Speaker: Andrew S.
 Podgorski
 - Blind Modulation Classification A Concept Whose Time Has Come, Speaker: Octavia Dobre
 - Nonlinear Analog Behavioral Modeling of Microwave Devices and Circuits, Speaker: David Root
 - X-parameters: A revolutioary paradigm for interoperable measurement, modeling and simulation of nonl, Speaker: David Root
 - EMC fundamentals and Computer Modeling, Speaker: Franz Schlagenhaufer
 - Current Status and Future Trends for Si and Compound MMICs in Millimeter-wave Regim,
 Speaker: Huei Wang
 - Impacts of the Sun on Satellite Communications Systems, Speaker: Andy D Kucar
- 2. This chapter applied in Aug. 2008 for annual funding from AP-S and MTT-S, and received \$650 and \$750 respectively, totalling \$1,400.
- 3. A member from this chapter represented chapter chair to attend the chapter chair's Luncheon in the International AP-S Symposium in San Diego, CA, USA in Jul. 2008. He reported about the Luncheon to chapter chair after coming back to Ottawa.

CI - Computational Intelligence Society (formerly Neural Networks)

Chair - Julio Valdes - Julio.Valdes@nrc-cnrc.gc.ca

Vice Chair - Nizar Sakr - nsakr@site.uottawa.ca

Vice Chair - Moufid Harb - moufidh@gmail.com

Ottawa Computational Intelligence Society Chapter http://ottawa.ieee.ca/ci/

During the past year (Oct. 2007 through Oct. 2008), the computational intelligence society – Ottawa Chapter has held four talks.

- 1. November 09, 2007, seminar on "Data Mining, Neural Networks and Rule Extraction" by CIS distinguished lecture, was presented by Prof. Jacek M. Zurada, former President of the IEEE CIS.
- 2. December 19, 2007, seminar on "Does pain hurt in both French and English?". by Ms. Oana Frunza, a Ph.D candidate at the University of Ottawa.
- March 18, 2008, seminar on "Neural Networks for Environment Recognition and Local Navigation of a Mobile Robot" by Dr. Moufid Harb, a research scientist at Larus Technologies Corp. (also affiliated with the University of Ottawa)..
- 4. July 3, 2008, seminar on "Applying Relational Learning to Structural Molecular Biology Problems" by Dr. Marcel Turcotte of the University of Ottawa.
- 5. Furthermore, an article introducing the Ottawa chapter as well as its various past events has been published in the August 2008 issue of the IEEE Computational Intelligence magazine. Lastly, we continue to build up this chapter to become the meeting place of choice for the computational intelligence community in the Ottawa region. For more information please visit the chapter website at http://ottawa.ieee.ca/ci.

CompSoc - Computer Society

Chair - Fernand Boudreau - fernand.boudreau@ieee.org

Vice Chair - Rami Abielmona - rabielmo@ieee.org

Ottawa Computer Society Chapter http://ottawa.ieee.ca/comsoc/index.html

The following three seminars are organized for the year 2008:

- 1. "Biometrics and Authentication Technologies: Security Issues," given by Dr. Andy Adler, Associate Professor, Carleton University on September 9, 2008.
- 2. "Linux for Embedded Systems," given by Rob Woolley, Senior Developer at Wind River Systems, on October 28, 2008.
- 3. "A Platform-based Approach to System Prototyping," given by Hugh Pollitt-Smith, Senior Engineer, Systems Design at CMC Microsystems, in November 2008.

<u>ComSoc & BTS - Joint Chapter of Communications Society and Broadcast Technology Society</u>

Chair - Wahab Almuhtadi - almuhtadi@ieee.org

Vice Chair - Tony Khoury - tkhoury@nortel.com

Ottawa ComSoc Chapter http://ottawa.ieee.ca/comsoc/index.html

- 1. The Ottawa ComSoC Chapter and The Ottawa Section are working together on bringing the IEEE International Conference on Communications (IEEE ICC) on of the two flagship conference to Ottawa and to be held in May or June of 2012.
- 2. "Impacts of the Sun on Satellite Communications Systems" by Dr. Andy D Kucar, www.radio4u.com, Ottawa, Canada. Held Jointly with Ottawa AP/MTT Joint Chapter on September 22, 2008.
- 3. "Blind Modulation Classification: A Concept Whose Time Has Come" by Dr. Octavia A. Dobre, Faculty of Engineering and Applied Science, Memorial University of Newfoundland, St. John's, NL, Canada. Held Jointly with Ottawa SP/OE/GRS and AP/MTT Joint Chapters on March 26, 2008.
- 4. "Advances in Wireless Sensor Networks" by Dr. Hussein T. Mouftah, Canada Research Chair and Distinguished University Professor SITE, University of Ottawa, Ottawa, Ontario, Canada. Held Jointly with Ottawa Women In Engineering (WIE), and Algonquin College IEEE Student Branch on February 27, 2008.
- 5. "Micro-power Integrated Circuits and Systems" by Prof. Anantha Chandrakasan, Director of the MIT Microsystems Technology Laboratories, MA, USA. Held Jointly with SSCS Chapter on December 20, 2007.
- 6. "Cooperative and Opportunistic Communications" by Behnaam Aazhang, distinguished lecturer. Held on July 30, 2007.

CPMT - Components, Packaging and Manufacturing Technology Society

Chair - Qi-Jun Zhang - qjz@doe.carleton.ca

Nov. 2007 to Oct. 2008

- 1. Meeting Date: 03/31/2008, Category: Technical, Title of Presentation: Nonlinear Analog Behavioral Modeling of Microwave Devices and Circuits, Speaker: David Root, Agilent Technologies, Santa Rosa, California, USA Location: Carleton University.
- 2. Meeting Date: 06/23/2008, Category: Technical, Title of Presentation: Current Status and Future Trends for Si and Compound MMICs in Millimeter-wave Regime and Related Issues Speaker: Professor Huei Wang, National Taiwan University, Taipei, Taiwan Location: Carleton University.
- 3. Meeting Date: 09/22/2008, Category: Technical, Title of Presentation: Impacts of the Sun on Satellite Communications, Speaker: Andy D Kucar, 4U Comm, Ottawa, Ontario, Location: Carleton University.
- 4. Meeting Date: 10/07/2008, Category: Technical, Title of Presentation: Improved Drain-Source Current Model for HEMTs with Accurate Gm Fitting in All Regions, Speaker: Prof. Jianguo Ma, University of Electronic Science and Technology of China, Chengdu, China, Location: Carleton University.

<u>DEIS - Joint Ottawa-Montreal Chapter of Dielectrics and Electrical</u> <u>Insulation Society</u>

Chair - Mahmoud Abou-Dakka - Mahmoud.Abou-Dakka@nrc.ca

The following three seminars were organized during the year 2008:

- Given by Dr. Soli Bamji, National Research Council, Ottawa, on January 24, 2008. The title was:
 "Luminescence and Space Charge Distribution in Polymeric Insulation subjected to High Electric Field"
- 2. Given by professor Gorur Govinda Raju, Emeritus Professor, University of Windsor, on February 27, 2008. The tile was: "High temperature insulating materials: research at university of Windsor"
- 3. Given by professor Arthur Yelon, École polytechnique de Montréal on March 7, 2008. The title was: "Multi-excitation entropy, Meyer-Neldel rule, and the physics of dielectric materials"

EDS, CAS, & SSCS - Joint Chapter of Electron Devices Society, Circuits and Systems Society, and Solid-State Circuits Society

Chair - Ram Achar - achar@doe.carleton.ca

EDS Vice Chair - Ihsan Erdin - ierdin@ieee.org, SSCS Vice Chair - Sreedhar Natarajan - sn@ieee.org

CAS Vice Chair - Dharmendra Saraswat - dsaras68@yahoo.com

Ottawa EDS/CAS/SSCS Joint Chapter http://ottawa.ieee.ca/eds cas sscs/

- 1. Sept. 22 (Monday), 2008, "Impacts of the Sun on Satellite Communications Systems," by Dr. Andy D Kucar, OTTAWA, Canada
- 2. June 23rd, 2008 Current,"Status and Future Trends for Si and Compound MMICs in Millimeter-wave Regime and Related Issues for System on Chip (SOC) and/or System in Package (SIP) Applications," by Professor Huei Wang, National Taiwan University.
- 3. March 31, 2008, "Nonlinear Analog Behavioral Modeling of Microwave Devices and Circuits," by Dr. David Root, Agilent Technologies, Santa Rosa, California
- 4. March 4, 2008, "Quantum Information-future of microelectronics?" by Dr. Pawel Hawrylak, National Research Council of Canada
- 5. February 12, 2008, "Variation Robustness for Analog/Mixed-Signal, Custom Digital and Memory Design," by Dr. Patrick G. Drennan, Chief Technology Officer, Solido Design Automation, San Ramon, CA

EMC - Electromagnetic Compatibility Society

Chair - Syed Bokhari - bokhari@ieee.org

Our events were well attended. Our chapter has held two events this year:

 Broadband Electromagnetic Environments and Protection Standards by Dr. Andrew S. Podgorski of ASR technologies Inc. Ottawa, Canada

- 2. EMC fundamentals and Computer Modeling by Dr. Franz Schlagenhaufer of the University of Western Australia , Perth , Australia
- 3. Chapter is planning to have other meetings in November and December this year.

EMBS - Engineering in Medicine and Biology Society

Chair - Sreeraman Rajan - sreeraman@ieee.org

Vice Chair - Yuu Ono - yuuono@sce.carleton.ca, Secretary - James Green - jrgreen@sce.carleton.ca

Treasurer - Mohammed Elbadri - elbadri@ieee.org, Web-Master - Adrian Chan - adcchan@sce.carleton.ca

Ottawa EMBS Chapter http://ottawa.ieee.ca/embs/

EMBS Carleton University Student Club http://www.embs.engsoc.org/

Activities for Nov 2007-Nov 2008:

- 1. Nov 28, 2007: "Haptic technology and its applications to surgery" by Prof. Peter Liu, -Department of Systems and Computer Eng, Carleton University, Ottawa, Canada.
- 2. Nov 7, 2007: "Genome rearrangements in evolution" by Prof. David Sankoff, Department of Mathematics and Statistics, University of Ottawa, Ottawa, Canada.
- 3. Jan 17, 2008" "Recent advances in molecular phylogenetics" by Prof. Xuhua Xia, Biology Department and School of Information Technology, University of Ottawa, Ottawa, Canada.
- 4. Jan 31, 2008: "Simulations of blood flow in artificial and natural hearts" by Prof. Stavros Tavoularis, Department of Mechanical Engineering, University of Ottawa, Ottawa, Canada.
- 5. Feb 14, 2008: "Large eddy simulation of pharmaceutical aerosol deposition in complex geometried" by Prof. Edgar Akio Matida, Department of Mechanical and Aerospace, Carleton University, Ottawa, Canada.
- Feb 28, 2008: "Coherent anti-stokes Raman scattering (CARS) microscopy in biology and medicine" by Dr. Sangeeta Murugkar, Biophotonics Group, School of Information Technology and Engineering, University of Ottawa, Ottawa, Canada.
- 7. March 13, 2008: "Photonics simulation tools for biophotonics: Finite difference time-domain modeling of the gold nanoparticle effect on optical phase contrast imaging of single biological cells" by Prof. Stoyan Tanev, Department of Systems and Computer Eng, Carleton University, Ottawa, Canada.
- 8. Apr 10, 2008: "Next generation of artificial limbs" by Prof. Kevin Engleheart, Department of Electrical and Computer Engineering, University of New Brunswick, Fredericton, Canada.
- 9. Oct 23, 2008: "New Applications and Developments of Infrared Imaging by Dr. Monique Frize, Department of Systems and Computer Engineering, , Carleton University, Ottawa, Canada
- 10. Nov 20, 2008: "Quantitative analysis of network patterns in developing organs" by Dr. Anne-Gaelle Rolland-Lagan, Biology Department, University of Ottawa, Ottawa, Canada.

IMS - Instrumentation and Measurement Society

Chair - Voicu Groza - vgroza@ieee.org
Vice Chair - Branislav Djokic - branislav@ieee.org
Ottawa IMS Chapter http://ottawa.ieee.ca/ims/

- 1. On Dec. 05, 2007, the IEEE Ottawa Section IMS Chapter, together with the Ottawa RCS, AESS, PES, and RS Chapters and Educational Activities, participated in the organization of a seminar "New Developments in Cooperative Control with Application to Formation Flying" presented at University of Ottawa by Dr. Amir Aghdam, professor at Concordia University in Montreal.
- 2. IMS Chapter also participated, together with the Ottawa DEIS, PES, and RS Chapters, in the organization of seminars: "High Temperature Insulating Materials: Research at University of Windsor", by Dr. Gorur Govinda Raju, Emeritus Professor at University of Windsor, on Feb. 24, 2008, as well as "Multi-excitation entropy, Meyer-Neldel rule, and the physics of dielectric materials" by Arthur Yelon, Prof. Emeritus, Département de génie physique and Regroupement québécois sur des matériaux de pointe, École polytechnique de Montréal, on Mar. 7, 2008 at the National Research Council in Ottawa.
- 3. IMS Chapter was one of the principal organizers of the IEEE Ottawa Workshop "Patient Safety: Adverse Response to Medication" WARM 2008 which was held on Feb. 25-26, 2008 at Centrepointe Theatre in Ottawa.
- 4. IMS Chapter, together with the PES, and RS Chapters and Educational Activities, is organizing, a seminar "DC and AC Programmable Josephson Voltage Standards: applications, achievements and limitations" by Dr. Alain Rüfenacht of National Institute of Standards and Technology, Boulder, Colorado, scheduled for Oct. 21, 2008 at the National Research Council in Ottawa.

LEOS - Lasers and Electro-Optics Society

Chair - Kexing Liu - Kexing.liu@ieee.org

Vice Chair - Sherif Sherif - Sherif.Sherif@ieee.org

Ottawa LEOS Chapter http://ottawa.ieee.ca/leos/

This chapter has held a number of technical meetings and symposia as follows

- October 24, 2008, a symposium on Recent Advancements in Photonics 4 speakers: IEEE LEOS
 Distinguished Lecturer Prof. Silvano Donati, Universita Pavia, Italy, presented two seminars: "Coupling
 Dynamics in Semiconductor Lasers and Applications to Self-Mixing Interferometry" and "Semiconductor
 Lasers and Chaotic Cryptography". Prof. John C. Howell, University of Rochester, USA, presented
 "Applications of Slow and Stopped Light". Prof. Xiaoyi Bao, University of Ottawa, presented "Using SBS to
 slow light, light storage and data frequency conversion in optical fibers". And IEEE LEOS Distinguished
 Lecturer Prof. John C. Cartledge, Queen's University, Canada, presented "Optical and Electronic Signal
 Processing for Fiber-Optic Communications".
- A special topic lecturer by Dr MEHDI ASGHARI of Kotura Inc., USA on "Si Photonics Technology: Its Practical Realization in Data-com and Tele-com Applications"

- 3. A symposium on Recent Advancements of Photonics with 3 speakers: Prof Wojtek J. Bock, Université du Québec en Outaouais on "Recent Progress in Physical and Bio-chemical Sensor Research Using Conventional and Microstructured Optical Fibers"; Dr Patrick Dumais, Communications Research Centre Canada on "Thermo-optic switching using liquid-core waveguides in integrated Mach-Zehnder interferometers in silica-on-silicon"; and IEEE LEOS Distinguished Lecturer: Prof. El-Hang Lee, National Center for VLSI Photonics, INHA University, South Korea on "VLSI Photonics: Science and Engineering of Micro/Nano-Photonic Integration".
- 4. LEOS has also hosted two DL speakers during the summer respectively: Prof Weng Chow of Sandia National Laboratory, USA on "Microscopic Theory and Its Applications to Semiconductor Laser Device Engineering"; and Prof Prem Kumar of Northwestern University, USA on "Fiber-Optic Quantum Communications".
- 5. Our meetings, particularly in the form of symposiums, are well attended. We are planning to continue these traditions which prove to be popular among our members and guests.

PES - Power and Energy Society

Chair - Wahab Almuhtadi - almuhtadi@ieee.org

Vice Chair - Carl Kropp - kropcarl@aol.com

Ottawa PES Chapter http://www.ewh.ieee.org/soc/pes/ottawa

PES Chapter is a very active chapter and serving its members with high discipline in organizing technical and educational seminars, symposia, and conferences. Thus much of the activities are jointly sponsored with other society chapters.

- "DC and AC Programmable Josephson Voltage Standards: applications, achievements and limitations" by Dr. Alain Rüfenacht, National Institute of Standards and Technology, Boulder, Colorado, USA. Held on October 21, 2008.
- Electrical Power & Energy Conference 2008 (EPC2008) "Energy Innovation", Vancouver, BC October 6-7, 2008 www.ieee.ca/epec08. The PES Chapter provided technical cosponsorship.
- 1. "Lessons Learned from Post 8/13/03 Blackouts: An Educator's Point of View" by Dr. Mo El-Hawary, IEEE Fellow, IEEE PES Distinguished Lecturer, Professor, Dalhousie University, Halifax, Nova Scotia, Canada. Held on September 5, 2008.
- 2. "Multi-excitation Entropy, Meyer-Neldel Rule, and The Physics of Dielectric Materials" by Prof. Arthur Yelon, Emeritus Département de génie physique and Regroupement québécois sur des matériaux de pointe École polytechnique de Montréal, Montréal Québec, Canada. Held jointly with Ottawa-Montreal Section DEIS, IEEE Ottawa Chapter, Ottawa IMS Chapter, and EPMG of INMS/NRC on March 7, 2008.
- 3. "High Temperature Insulating Materials: Research at University of Windsor" by Dr. Gorur Govinda Raju, Emeritus Professor, University of Windsor, Windsor, Canada. Held jointly with Ottawa-Montreal Section DEIS, IEEE Ottawa Chapter, Ottawa IMS Chapter, and EPMG of INMS/NRC on February 27, 2008.

- 4. "Luminescence and Space Charge Distribution in Polymeric Insulation subjected to High Electric Field" by Dr. Soli Bamji, National Research Council, Ottawa, Canada. Held jointly with Ottawa-Montreal Section DEIS, IEEE Ottawa Chapter, Ottawa IMS Chapter, and EPMG of INMS/NRC on January 24, 2008.
- 5. "New Developments in Cooperative Control with Application to Formation Flying" by Dr. Amir Aghdam, Concordia University, Montreal, Canada. Held jointly with Ottawa RCS/AESS, RS, IMS Chapters, and Ottawa EA on December 05, 2007.
- 6. Filed Visit to the Bells Corners Complex (Labs) of the CANMET Technology Centre (CETEC). Held jointly with RS and EA on November 9, 2007.
- 7. Electrical Power Conference 2007 "Renewable and Alternative Energy Resources" www.ieee.ca/epc07.

 Organized by IEEE Canada, IEEE Montreal Section, Ottawa Section and Ottawa PES. Held on October 24-25, 2007 in Montreal, Quebec, Canada.
- 8. "The Role of JEMIC in Japan's Electrical Power Industry, Calibration of Active/Reactive Power/Energy Meters at JEMIC" by Mr. Usa Kakinuma Vice President, and Dr. Kunihiko Takahashi Director Technical Research. Held jointly with IMS, RS, EA, and Student branches on July 3, 2007.
- 9. "RoHS Reliability Impact" by Larry Akre, Sr. Procurement Quality Engineer. Held jointly with Algonquin College Student Branch, Robotics, RS, EMS, and EA on May 17, 2007.
- 10. "Value Stream Mapping" by Larry Akre, Sr. Procurement Quality Engineer. Held jointly with Algonquin College Student Branch, Robotics, RS, EMS, and EA on May 17, 2007.

RAS & CSS - Joint Chapter of Robotics & Automation, and Control Systems Societies

Chair - Jurek Sasiadek - (613) 520-2600 ext. 5698- jsas@ccs.carleton.ca

Ottawa RAS/CSS Chapter: www.ottawa.ieee.ca/ras_css/

The RAS & CSS Joint Chapter organized the following activities:

- 1. "New Developments in Cooperative Control with Application to Formation Flying" presented at University of Ottawa by Dr. Amir Aghdam, professor at Concordia University in Montreal. The seminar was organized in conjunction with the IEEE Ottawa EA, AESS, PES, RS, and IMS Chapters on Dec. 05, 2007.
- "MODELING AND SIMULATION OF FLAPPING WINGS MICRO-AERIAL-VEHICLES FLIGHT DYNAMICS" by Dr Krzysztof Sibilski, Professor of Aerospace Engineering Department of Mechanical, Energy and Aerospace Engineering, Wroclaw University of Technology. The meeting was held on October 22, 2008.

RL - Reliability Society

Chair - Raed Abdullah - (613) 738-5499 ext. 7216 - RaedAbdullah@ieee.org Vice Chair – Sasa Marinkov sasa.marinkov@sympatico.ca

Reliability is a root discipline in all realms of engineering from software to hardware and human interface, be it for improving process, quality, safety, or simply reliability. Thus much of the activities are jointly sponsored with other society chapters.

- 2007/11/09: Filed Visit to the Bells Corners Complex (Labs) of the CANMET Technology Centre (CETEC).
 Held jointly with PES, EA
- 2. 2007/07/03: The Role of JEMIC in Japan's Electrical Power Industry, Calibration of Active/Reactive Power/Energy Meters at JEMIC by Mr. Usa Kakinuma Vice President, and Dr. Kunihiko Takahashi Director Technical Research. Held jointly with IMS, PES, EA, Student branches.
- 3. 2007/05/17: "RoHS Reliability Impact" by Larry Akre, Sr. Procurement Quality Engineer. Held jointly with Algonquin College Student Branch, Robotics, PES, EMS, EA.
- 4. 2007/05/17: "Value Stream Mapping" by Larry Akre, Sr. Procurement Quality Engineer. Held jointly with Algonquin College Student Branch, Robotics, PES, EMS, EA
- 5. 2007/11/22: "Own or be Pwned" A little goes a long way.., by Ozan Gonenc and Ryan Thomas, Deloitte and Touche. Held jointly with Algonquin College Student Branch, AICN, WIE, AP/MTT.
- 6. 2007/11/29: "Fools Gold or Pay Dirt Is Network Scanning Detection a Worthwhile Activity?" by David Whyte, PhD Candidate, CRC, Carleton U. Held jointly with Algonquin College Student Branch, AICN, WIE, AP/MTT.
- 7. 2007/12/05: "New Developments in Cooperative Control with Application to Formation Flying," by Dr. Amir Aghdam. Held jointly with AESS, PES, IMS.
- 8. 2008/02/25-26: IEEE Ottawa Section Workshop on Adverse Response Monitoring: "Patient Safety: Adverse Response to Medication" http://ottawa.ieee.ca/ims/warm2008/
- 9. 2008/03/18: "Mechanical reliability in electronics A lifetime of strange failures and conditions" by D. Hugh M. Reekie. Held jointly with EMC, AP/MTT, EA, and Algonquin College Student Branch.
- 10. 2008/09/25: "Systems Reliability in the Nanoelectronics Era:"
 - Focused Ion Beam Technology and Applications to Microelectronics by Marsha Abramo, IBM (Ret.)
 - Early Problems with Lead-Free Solders in Cell Phones, by Alan Street, Qualcomm
 - Safety and Reliability on the NASA Space Shuttle, by Alfred Stevens United Space Alliance (Ret.)
 - Developing World Class Products with Design for Six Sigma Tools Dr. Samual Keene, Keene & Assc.
 - eFuse Design and Reliability in CMOS Processing, by William R. Tonti, IBM
 - Held jointly with the Carleton University and University of Ottawa student branches.

SP, OE, & GRS - Joint Chapter of Signal Processing, Oceanic Engineering, and Geoscience and Remote Sensing

Chair - Balakumar Balasingam - balasing@site.uottawa.ca Vice Chair - Yifeng Zhou - yifeng.zhou@crc.ca Ottawa SP/OE/GRS Chapter http://ottawa.ieee.ca/grsoesp/

- 1. On Dec. 05, 2007, the IEEE Ottawa Section IMS Chapter, together with the Ottawa RCS, AESS, PES, and RS Chapters and Educational Activities, participated in the organization of a seminar "New Developments in Cooperative Control with Application to Formation Flying" presented at University of Ottawa by Dr. Amir Aghdam, professor at Concordia University in Montreal. The SP/OE/GRS.
- 2. Chapter is planning to have other meetings in November and December this year.

TM, PCS, & SSIT - Joint Chapter of the Technical Management Council, Professional Communications Society, and Society on Social Implications of Technology

Chair - Jean Couillard, (613) 562-5800 ext. 4012 - couillard@management.uottawa.ca Vice Chair - Alfredo Herrera - alfredo.herrera@ieee.org

Ottawa TM/PCS/SSIT Chapter http://ottawa.ieee.ca/tmpcsit/

The Technology Management Council (TMC) has been formed in 2007 as a development of the Engineering Management Society (EMS). As of January 2008, the Ottawa TMC Chapter became the Technology Management Council / Professional Communication Society Joint Chapter, TMC/PCS Joint Chapter. On March 2008, John Grefford asked IEEE TMC and related societies to add the Ottawa Society on Social Impact of Technology (SSIT) Chapter to the Ottawa TMC/PCS Joint Chapter. Ferial El-Hawary, R7 Director, Gus Gaynor, President of the TMC, Mark Haselkorn, President of the PCS, Janet Rochester, President of the SSIT, and IEEE Member and Geographic Activities (MGA formerly RAB) have approved to make this change to the IEEE Ottawa Section Technology Management Council, Professional Communication Society, and Society on Social Implications of Technology Joint Chapter, TMC/PCS/SSIT Joint Chapter (IEEE Ottawa Section Joint Chapter TM14/PC26/SIT30).

This report from the TMC/PCS/SSIT Joint Chapter covers the period from October 2007 through October 2008. It describes shortly the activities that took place during the period and an upcoming event for 2008.

1. IEEE FPGA Workshop 2007 (October16-17, 2007)- Accelerating Computationally Intensive Applications: The FPGA Workshop 2007 was organized by the IEEE Ottawa Section, the IEEE Ottawa chapter of the Engineering Management Society, and the IEEE Ottawa Section Educational Activities, in conjunction with CMC Microsystem's CWSOC 2007. The two day workshop was successfully held at two different locations. On Tuesday October 16th, the first session, "FPGA Design Flows and Programming Competition Kick-off", took place at the Fenn Lounge on the Residence Commons, located at 1125 Colonel by Dr. and on Wednesday October 17th the second session, "Implementation: FPGAs in aAtion!", was held at the Crown Plaza Hotel. The main goal of the FPGA Workshop 2007 was to increase the understanding and knowledge

of Field Programmable Gate Arrays (FPGAs) and to encourage growth and development in the field. This workshop catered to university students in electrical/electronic/communication engineering, computer science or software engineering; it is also of interest to computing or communications hardware and software designers, architects and managers. It provided invaluable knowledge to investors and entrepreneurs considering the adoption or evolution of their use of FPGAs.

- 2. October 3, 2008: "Competitiveness and Leveraging Opportunities from Our Challenged Engineering Work Force". The Ottawa Chapter of Professional Engineers Ontario jointly with the IEEE Ottawa Section Technology Management Council will held a special information session on October 3, 2008 at the Air Force Officers' Mess, 158 Gloucester St Ottawa, from 7h30am until 10h30am. The event will provide the participants with a unique learning opportunities in HOW TO maintain a company's competitiveness and HOW TO leverage the skills of Canadian engineering workers who may be challenged when seeking employment: older, younger, immigrants and under employed engineers. The keynote speakers are: Ms. Lisa MacLeod MPP, Dr. Linda Manning, Ms. D. Lynne Watt, Mr. Gilles Bérubé, and Mr. Norm Sterling MPP.
- 3. Chapter is planning to have other meetings in November and December this year.

VTS - Vehicular Technology Society

Chair - Hugh Reekie - (613)728-5343 (day & evg) - h.reekie@ieee.org

Vice Chair - Isaac Ginsburg - iginsburg@sympatico.ca

Ottawa VTS Chapter http://members.allstream.net/~max-com/ottawa.vts.html

All the meetings run in the last year were double meeting or workshops. Many were advertised to appropriate sister organizations, to provide specialist information to as large an audience as possible. Attendances, about 40 for each event, reflected the significant publicity used. Similar specialized events are planned.

- 1. Electric Car Evening Dec 2007. This workshop included two presentation a by Darryl McMahon of the Electric Vehicle Council of Ottawa. Many electric vehicles were on display and the movie "Who Killed the electric car" was shown.
- 2. Vehicle Infrastructure Integration VII March 2008. Stephen Shladover and James Misener from PATH California gave illustrated presentations. Attendees came from Montreal and Toronto for this event.
- 3. Chapter is planning to have other meetings in November and December this year.

Affinity Groups

AICN - Alliance of IEEE Consultant Network

Vice Chair - Abhay Raman - abhayraman@ieee.org Vice Chair - Barry De young - barry.deyoung@ieee.org

AICN Ottawa's objectives include fostering the growth of Consultants and Entrepreneurs Networks in the National Capital Region, encouraging consultants / entrepreneurs, venture capitalists to join existing networks

or form new ones, promoting the use of independent technical and engineering consultants by industry and business, and providing educational activities for self-employed members. This is accomplished in part by cosponsoring seminars.

- 1. 2007/11/22: "Own or be Pwned" A little goes a long way.., by Ozan Gonenc and Ryan Thomas, Deloitte and Touche. Held jointly with Algonquin College Student Branch, RS, WIE, AP/MTT.
- 2007/11/29: "Fools Gold or Pay Dirt Is Network Scanning Detection a Worthwhile Activity?" by David Whyte, PhD Candidate, CRC, Carleton U. Held jointly with Algonquin College Student Branch, RS, WIE, AP/MTT.
- 3. Forthcoming seminars include a talk by Andrew Goddard, Manager Deloitte on "Software Quality: Applying Effective Test Harnesses and Test Approaches to Software Development" and an interseting discussion on "Security Considerations in an Academic Context" by Jamie Campbell, Carleton University's Security Manager.
- 4. AICN is planning to have other meetings in November and December this year.

For more information on AICN, please contact abhayraman@ieee.org

GOLD - Graduates of the Last Decade

Anissa Shaddy - anissa@ieee.org

Ottawa GOLD Website http://ewh.ieee.org/r7/ottawa/gold/2008/index.html

The IEEE Ottawa GOLD Affinity Group has just recently become active in June 2008. We hold meetings on a monthly basis and have organized two events so far. Our goal is to help new graduates transition into the professional world by providing opportunities to make professional contacts, make peer connections, and attend social events. We are off to a good start and the details of our first couple events are as follows:

- 1. Untangling the Web: Trends, Business Models, and Success Stories from the Perspective of a Young Entrepreneur. Speaker: Aydin Mirzaee. This was our first event and the goal was to engage the IEEE Ottawa GOLD community to come out and get introduced to GOLD in a friendly and social environment and to learn a few things about business on the web.
- 2. BBQ and Volleyball. This was a social event with activities planned and food provided by IEEE Ottawa GOLD. The goal of the event was to build upon the member base we had attracted to our first event. We would like to establish a higher level of participation from our members to ensure larger events are a success.
- 3. Sept 17-18, 2008: Our attendance at the GOLD Summit 2008 was a great success and has given us a large amount of resources, contacts, and ideas. We are looking forward to implementing these ideas in the future.
- 4. GOLD is planning to have other meetings in November and December this year.

LM - Life Member

Chair - David Coll - dccoll@ieee.org
Vice Chair - John Wilson - jamwilso@allstream.net

September 27, 2007, the IEEE Ottawa Section Life Members Affinity Group was formed, coming into existence in January 2008. LM organized the following meetings:

- 1. February 2, 2008: where a round table discussion of several topics including the pitfalls of CFB's were discussed.
- 2. April 24, 2008: with R. E. Thomas, LS, giving a talk on Photovoltaics.
- 3. September 25, 2008: when the speaker will be Yiyan Wu, LF, speaking about Digital Television.

WiE - Women in Engineering

Chair - Preeti Raman - praman@eidosglobal.com Vice Chair - Carolyn MacIsaac - Carolyn.MacIsaac@algonquincollege.com

Ottawa WiE Website http://ottawa.ieee.ca/wie/

IEEE Ottawa Women in Engineering is our local affinity group of the IEEE Women in Engineering Committee (WIEC) that is dedicated to important issues for Women Engineers. We encourage you to visit our website for information on ways to get involved with the WIE.

- 1. November 22, 2007: we jointly organized the following talks: "Own or be Pwned" A little goes a long way.., by Ozan Gonenc and Ryan Thomas, Deloitte and Touche. Held jointly with Algonquin College Student Branch, AICN, RS, AP/MTT.
- 2. November 22, 2007: "Fools Gold or Pay Dirt Is Network Scanning Detection a Worthwhile Activity?" by David Whyte, PhD Candidate, CRC, Carleton U. Held jointly with Algonquin College Student Branch, RS, AICN, AP/MTT.
- 3. February 27, 2008: WIE co-organized a talk with the IEEE Ottawa Joint Chapter of Communications Society and Broadcast Technology Society and Algonquin College IEEE Student Branch at Algonquin College on "Advances in Wireless Sensor Networks" by Dr. Hussein T. Mouftah, Canada Research Chair and Distinguished University Professor SITE, University of Ottawa, Ottawa, Ontario, Canada.
- 4. Forthcoming events include a high tea networking event, a one day workshop providing hands on experience with respect to the basic operating characteristics of three phase power distribution, transformers, and AC and DC machine; seminars co-organized with AICN: Talk by Andrew Goddard, Manager Deloitte on "Software Quality: Applying Effective Test Harnesses and Test Approaches to Software Development" and an interseting discussion on "Security Considerations in an Academic Context" by Jamie Campbell, Carleton University's Security Manager.

For more information on our events, please visit our website, or contact praman@ieee.org.

Student Branches

Algonquin College ieee@algonquincollege.com

Chair - Emily Chan - chan0262@algonquincollege.com
Vice Chair - Andrew Jacques - jacq0035@algonquincollege.com
Faculty Advisor - Abdul Al-Azzawi - alazzaa@algonquincollege.com
Past Faculty Advisor - Wahab Almuhtadi - almuhtadi@ieee.org
IEEE Algonquin College Student Branch http://algonquin.ieee.ca/

Algonquin branch is expanding and focusing on increasing membership. The branch held the following activities jointly with other society chapters:

- 1. "RoHS Reliability Impact" and "Value Stream Mapping" by Larry Akre, Sr. Procurement Quality Engineer. Held jointly with Ottawa RS, Robotics, RS, EMS, and EA on May 17 2007.
- 2. "Own or be Pwned" A little goes a long way.., by Ozan Gonenc and Ryan Thomas, Deloitte and Touche. Held jointly with Ottawa RS, AICN, WIE, AP/MTT on Nov. 22, 2007
- 3. "Fools Gold or Pay Dirt Is Network Scanning Detection a Worthwhile Activity?" by David Whyte, PhD Candidate, CRC, Carleton U. Held jointly with AICN, WIE, AP/MTT on Nov. 29, 2007.
- 4. "Advances in Wireless Sensor Networks" by Dr. Hussein T. Mouftah, Canada Research Chair and Distinguished University Professor SITE, University of Ottawa, Ottawa, Ontario, Canada. Held Jointly with Ottawa ComSoc/BTS Joint Chapter and Ottawa Women In Engineering on February 27, 2008.
- 5. "Mechanical reliability in electronics A lifetime of strange failures and conditions" by D. Hugh M. Reekie. Held jointly with Ottawa RS, EMC, AP/MTT, EA on March 3, 2008.
- 6. Battle Royale LAN Party 24 hours computer gaming event hosted jointly by the IEEE Branches from Algonquin College, Carleton U, and Ottawa U on March 8 & 9, 2008.
- 7. Eastern Ontario Student Papers Competition: Participating students came from Carleton U, Ottawa U, Algonquin College, Queens U & RMC held at Carleton University on March 31, 2008.

<u>Carleton University</u> ieee@doe.carleton.ca

Chair - Jieyi Rong - jieyi.rong@ieee.carleton.ca
Faculty Advisor - Calvin Plett - cp@doe.carleton.ca
IEEE Carleton University Student Branch http://www.ieee.engsoc.org/
IEEE EMBS Carleton University Student Club http://www.embs.engsoc.org/

Some of the main highlights of IEEE Carleton Branch for 2007-2008 have been the success of the newly launched IEEE Carleton Computer Society which has been primarily responsible for the Battle Royale LAN party & IEEE Codejam 2008 this past year. However to steal the limelight was the IEEE Connects! Event where our main guest keynote speaker was none other than the author of PHP programming language, Rasmus Lerdorf. Some of our events that have been conducted around the year are:

- 1. Orientation Day
- 2. Volunteer Training Session
- 3. From Backpack to Briefcase, October 12, 2007 Guest Keynote Speaker: Rasmus Lerdorf
- 4. FPGA Programming competition & workshop
- 5. Alcatel Lucent Tour
- Students Technology Awareness Conference STAC 2008, February 7 2008, with Guest Speakers: Vijay Narasimhan, Membership Director, IEEE Ottawa Section; Michael Crichton, Patent Lawyer & Agent, Gowling Lafleur Henderson LLP; Prof Jim Wight, Chancellor Professor, Dept of Electrical Engineering, Carleton University.
- 7. Tech Venture Challenge
- 8. Battle Royale LAN Party March 8 & 9, 2008 24 hours computer gaming event hosted jointly by the IEEE Branches from Carleton U, Ottawa U & Algonquin College.
- 9. IEEE CodeJam 2008 March 22, 2008 First year students from Carleton & Ottawa University clashed their minds in this coding competition in order to win top prize.
- 10. IEEE Student Papers Competition
- 11. Eastern Ontario Student Papers Competition March 31, 2008:- Participating students came from Carleton U, Ottawa U, Algonquin College, Queens U & RMC.
- 12. ELEC 3500 FPGA Contest
 - IEEE Team Building Weekend, Executive Training Weekend, and Fourth Year Information Session
- 13. For the upcoming year, we are planning an even bigger Battle Royale LAN party scheduled for November 2008. Other events in the pipeline include IEEE Connects!, Go Eng Girl and IEEE Codejam.

University of Ottawa sb.uottawa@ieee.org

Chair - Sarah Tolledo - sarah.tolledo@ieee.org
Faculty Advisor - Shervin Shirmohammadi - shervin@site.uottawa.ca
IEEE Ottawa University Student Branch http://www.ewh.ieee.org/sb/ottawa/uottawa/

The uOttawa IEEE Student Branch had a very successful 2007-2008 year, hosting a number of social and academic -events. Part of this year's success can be attributed to a better relationship with the Carleton University IEEE Student Branch, who invited us to be a part of their IEEE Connects! event. We also jointly held IEEE CodeJam, as well as the first annual Battle Royale – Carleton vs. uOttawa LAN party.

Other events held throughout the year include:

- 1. Microsoft Game Camp
- 2. Canadian Undergraduate Software Engineering Conference (CUSEC)

- 3. Alcatel Information Session
- 4. IEEE Connects!
- 5. IEEE uOttawa / Carleton Student Branch Beach Volleyball Social Event
- 6. 101 Week Orientation and Scavenger Hunt
- 7. Pub and Console Night
- 8. Battle Royale
- 9. Food For Thought Ethics Competition
- 10. uOttawa Engineering Competition
- 11. Student Technology Venture Challenge
- 12. IEEE Easter Ontario Paper Competition
- 13. Annual General Meeting
- 14. Code Jam!
- 15. IEEE Telus Competition

For the upcoming year, we are planning to build upon our previous success, co-hosting an even bigger Battle Royale with Carleton, as well as more social and networking events for our students.

IEEE Ottawa Executive Officers 2008

The current IEEE Ottawa Section executive officers are as following:

- 1. Chair: Dr. Wahab Almuhtadi, P.Eng. almuhtadi@ieee.org
- 2. Vice-Chair: Raed Abdullah, P.Eng. raedabdullah@ieee.org
- 3. Treasurer: Dr. Sreeraman Rajan, sreeraman@ieee.org
- 4. Secretary: Secretary: Alfredo Herrera, alfredo.herrera@ieee.org

 Carolyn MacIsaac, macisa@algonquincolleg.com
- 5. Past Chair: Dr. Branislav Djokic, P.Eng., branislav@ieee.org

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

IEEE Ottawa Elections 2009/NEW Slate of the Executive Officers 2009

The Section officers proposed by the Nomination Committee for the Ottawa Section Executive in 2007:

- 1. Chair: Raed Abdullah, P.Eng. raedabdullah@ieee.org
- 2. Vice-Chair: Dr. Sreeraman Rajan, sreeraman@ieee.org
- 3. Treasurer: Dr. Rami Abielmona, P.Eng. rabielmo@ieee.org
- 4. Secretary: Carolyn MacIsaac, macisa@algonquincolleg.com
- 5. Past Chair: Dr. Wahab Almuhtadi, P.Eng., almuhtadi@ieee.org

Other nominations:

Other nominations supported by a petition of at least 10 IEEE Ottawa full members are welcome too, and should be sent to the Nominations Committee Chair Branislav Djokic < branislav@ieee.org> no later by Nov. 1, 2008.

Section's E-Communications

Web http://ottawa.ieee.ca/publications.html:

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: ottawa.ieee.ca/news/about.html. Contact: ottawa.ieee.ca/news/about.html.

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

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remember, and update. Visit: http://eleccomm.ieee.org/.

List of Executives

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.

CHAPTERS:			
CHAPTER	CHAIR	URL	
AESS	Hugh Reekie, <u>h.reekie@ieee.org</u>	http://members.allstream.net/~max- com/ottawa.AESS.html	
AP/MTT	Quibo Ye, <u>quibo.ye@crc.ca</u>	http://www.ottawa.ieee.ca/ap_mtt/home/	
BTS/ComSoc	Wahab Almuhtadi, <u>almuhtadi@ieee.org</u>	http://ottawa.ieee.ca/comsoc/	
Computer	Fernand Boudreau - fernand.boudreau@ieee.org	http:// ottawa.ieee.ca /cs/	
CI	Julio Valdes, <u>Julio.Valdes@nrc-</u> cnrc.gc.ca	http://ottawa.ieee.ca/ci/	
СРМТ	Qi-jun Zhang, <u>qjz@doe.carleton.ca</u>		
DEIS	M. Abou-Dakka <u>, Mahmoud.Abou-</u> <u>Dakka@nrc.ca</u>		
EDS/CAS/SSCS	Ram Achar, <u>achar@doe.carleton.ca</u>	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	Sreeraman Rajan, sreeraman@ieee.org	http://ottawa.ieee.ca/embs/	
IMS	Voicu Groza, vgroza@ieee.org	http://ottawa.ieee.ca/ims/	
LEOS	Kexing Liu, kexing.liu@ieee.org	http://ottawa.ieee.ca/leos/	
PES	Wahab Almuhtadi, almuhtadi@ieee.org	http://www.ewh.ieee.org/soc/pes/ottawa/	
RS	Raed Abdullah, RaedAbdullah@ieee.org		
RAS/CSS	Jurek Sasiadek, <u>isas@ccs.carleton.ca</u>		
SP/OE/GRS	Balakumar Balasingam. balasing@site.uottawa.ca	http://ottawa.ieee.ca/grsoesp/	
VTS	Hugh Reekie, <u>h.reekie@ieee.org</u>	http://members.allstream.net/~max- com/ottawa.vts.html	
COMMITTEES:			
COMMITTEE	CHAIR	URL	
AGM Planning	Raed Abdullah, <u>RaedAbdullah@ieee.org</u>		
Awards	Wahab Almuhtadi, <u>almuhtadi@ieee.org</u>	http://ottawa.ieee.ca/awards.html	
Bylaws	Branislav Djokic, <u>branislav@ieee.org</u>	http://ottawa.ieee.ca/bylaws.html	

Communications	Rami Abielmona , <u>rabielmo@ieee.org</u>	http://ottawa.ieee.ca/publications.html
Publications		
Educational	Branislav Djokic, <u>branislav@ieee.org</u>	http://ottawa.ieee.ca/ea
Activities		
EiT	Colin Cantlie, colin.cantlie@ieee.org	
Membership	Vijay Narasimhan,	
Development	vijay narasimhan@ieee.org	
Nomination	Branislav Djokic, <u>branislav@ieee.org</u>	
Robotics	Rob Woolley, rcwoolley@ieee.org	http://ottawa.ieee.ca/robotcomp/
Competition		
Senior	George Yee, g.m.yee@ieee.org	
Membership		
AFFINITY GROUP	S:	
GROUP	CHAIR	URL
AICN	Abhay Raman <u>abhayraman@ieee.org</u>	
GOLD	Anissa Shaddy - <u>anissa@ieee.org</u>	http://ottawa.ieee.ca/gold/
Life Member	David Coll, dccoll@ieee.org	
WiE	Preeti Raman, <u>praman@eidosglobal.com</u>	http://ottawa.ieee.ca/wie/
STUDENT BRANC	HES:	
BRANCH	CHAIR	URL
Algonquin	Emily Chang, <u>itang613@ieee.org</u>	http://ewh.ieee.org/sb/ottawa/algonquin/
College		
Carleton	Jieyi Rong -	http://www.ieee.engsoc.org/v2.0/
University	jieyi.rong@ieee.carleton.ca	
University of	Andrew Shaver, andrewshaver@hotmail.com	http://www.genie.uottawa.ca/~ieee/