



The IEEE Toronto Section Annual Connection

Special Centennial Issue 2003

This special issue of Connection marks the debut of Toronto Section's annual communication to its members in a new magazine format to complement the monthly newsletter in electronic format which is presented on the section website and announced via a short email message. To highlight IEEE Canada's first section centennial, this issue is being incorporated into the IEEE Canadian Review and delivered to all Canadian IEEE members.

Following an introduction by Section Chair, Bob Hanna, we highlight our celebration plans, and provide an abbreviated history of the section which includes a brief insight into the pioneering use of electronic communication for section members. We then provide an overview of the current operation of Canada's largest and oldest section, and include a number of news items for section members. Some of these will appear in the electronic newsletter to be posted after this article is written, others are included for the benefit of members who do not access our web site.

**IEEE
Toronto
100**

by *Bob Alden, Bruno DiStefano, Bob Hanna, Wallas Khella and Pelle Westlind*
IEEE Toronto Section, ON

Abstract

The IEEE Toronto Section celebrates the first centennial of a Canadian IEEE section with a program of member activities to commemorate past achievements and contributions and plans to move forward into its second century of serving its membership and the local technical and professional community.

Sommaire

La section IEEE de Toronto célèbre le premier centenaire atteint par une section IEEE canadienne par le biais d'un programme d'activités offertes aux membres commémorant les réussites et contributions passées ainsi que les plans futurs pour les prochains cents ans au cours desquels elle continuera à servir ses membres et la communauté technique et professionnelle locale.

Where did the 100 years go?

In 1903, while Pierre and Marie Curie presented research on radio-activity to London's Royal Institution and Marconi sent a greeting from U.S. President Teddy Roosevelt to England's King Edward VII by wireless, members of the IEEE were establishing the first section outside the United States. The IEEE Toronto Section was formed on September 30, 1903 as a section of the American Institute of Electrical Engineers. It is an overwhelming task attempting to cover the section achievements since its foundation but suffices to mention that it has grown to be the largest section in Canada.

The section has undergone several changes to emerge in its present form. A countless number of dedicated volunteers have served this section and have been the pillars in building it. The key section milestones are listed in this newsletter and can also be reviewed by visiting our web site at <http://toronto.ieee.ca>. The Toronto Section over the years has provided several programs to its members and undertaken many initiatives to enhance its services. These include running technical courses, seminars, participating in conferences, social meetings, annual and monthly newsletters, etc.

It might not be feasible to recall all the significant contributions of our former section chairs and their committees but an effort was made to list all former section chairs over the past 100 years and can be viewed by visiting our section web site. We are indeed indebted to these volunteers who served our section and society so tirelessly.

In the past several months the section executives have been working on several initiatives to coincide with our centennial celebration. These included creating a new section logo that is displayed above, a redesigned web site and monthly electronic newsletter. In addition, we have updated our section bylaws, undertaken a membership drive to help members to attain senior member grade, conducted a membership survey, established a life member chapter, increased the ties with

industry and reactivated our industry applications chapter.

We have been very active in providing student scholarships to several universities and colleges located within our section geographical area. This program was started in about 1980 when previous executive members had the foresight to establish a program to support our students. To date, the section has provided about \$100,000 in student scholarships with over 60 students benefiting.

The section would like to thank the IEEE Canada board of directors for their support in holding their meeting in early October in Toronto and to join in with our special dinner event on Saturday October 4, 2003. During this event, some student scholarships offered by the section will be named after dedicated volunteers in recognition for their extraordinary services to our section. Also, other awards will be announced to key volunteers that have significantly contributed to the advancement of our section.

We would like to express our gratitude to all those volunteers who have been part of our section for the past 100 years and we are very proud of their services, contributions and dedication to our section and to IEEE. We are very grateful to all of our members whose continued support has made it possible to reach this enviable milestone in our section's proud history.

Happy 100th anniversary and may our section continue its prosperity into the future.

Bob Hanna, IEEE Toronto Section Chair

Telephone: 905-823-3363

Email: r.hanna@ieee.org

Welcome to our Centennial Celebration

The Toronto Section has the unique distinction of being the first section of the American Institute of Electrical Engineers (AIEE) formed outside the United States - in 1903. Since those early beginnings, the Section has grown and prospered together with our great city of Toronto as electrical engineers have developed and managed electricity to provide the power for its industry and communication for its citizens.

To celebrate this special year, we have scheduled a number of events; a Centennial Lecture on April 14, 2003, by Professor Andreas Antoniou on the Origins of DSP (digital signal processing), a display and presentation at the IEEE Power Engineering Society general meeting in July, and a special Centennial Anniversary Event on Saturday October 4, 2003 at the Marriott Bloor Yorkville hotel in conjunction with the IEEE Canada fall meeting series. The October dinner meeting promises to be an evening to remember - please keep an eye on our web site where information about obtaining tickets will be posted well before the closing deadline for purchase.



At the May 2003 IEEE Canada Board meeting in Montreal, Bob Hanna (left) received the official IEEE 100 year anniversary banner on behalf of the Toronto Section from IEEE Canada President Mo El-Hawary (right).



Another picture from the banner presentation (from left to right): M.El-Hawary (IEEE Canada Director), Bob Hanna, Pelle Westlind, Bruno Di Stefano, Celia Desmond, Bob Alden and Bill Kennedy (IEEE Canada Director elect)

The History of the Toronto Section

The IEEE Toronto Section was formed on September 30, 1903 as a section of the American Institute of Electrical Engineers (AIEE). It was the first such section formed outside the United States. This was 18 years after Thomas Edison and Alexander Graham Bell formed the AIEE, 6 years after the formation of the Canadian Society of Civil (non-military) Engineers - to become the Engineering Institute of Canada (EIC) in 1912, and 9 years before the formation of the Institute of Radio Engineers (IRE). The Canadian Section of the IRE was formed in Toronto in 1925. The AIEE and IRE merged in 1963 to create IEEE, and IEEE Canada was created in 1994 with ties to both IEEE and EIC. The first chapter (of the Power Engineering Society) was created in the Toronto Section just one year after the merger that created the IEEE.

Over the past 100 years, many AIEE and IRE volunteers served the electric power and communication communities. The advent of computers, the merger of the two founding institutes, and the growth in specialized technical societies under the IEEE umbrella, have impacted on the Toronto Section whose management executive has likewise grown and diversified.

Our history pages on our web site are developing with the momentum provided by our centennial. One page lists the 100 years of Toronto Section Chairs of the AIEE - IEEE lineage, with occasional information about IRE Chairs. Another page traces the history of our chapters, which are the focal point of our technical program offerings. The first chapter formed was Power Engineering in 1964, one year after the AIEE-IRE merger. The third page traces the beginnings of electronic communications within our section - here is a small sample from that page.

E-mail arrived in the Toronto Section before it was widely used almost anywhere else, thanks to the pioneering efforts of Bruno Di Stefano. Bruno started using UUCP (UNIX-to-UNIX-CoPy) in 1979 at work when it was only used by large computer system operators and other insiders to communicate between each other over very limited machine interconnections. Ten years later, when this type of use was still the norm, Bruno conceived of setting up a BBS (Bulletin Board System) with a dedicated phone line that members could use to post and receive messages. Bruno used his own UUCP capability to be the link between the IEEE headquarters and the Toronto-based BBS. Because many members did not have one of those early telephone modems (where you placed the head-set into an acoustic pad with microphone/speaker), Bruno would fax messages to complete the path. Bruno also experimented successfully with using Usenet News to advertise seminars. In 1998, the section converted to the Internet using a local provider to host its web site, transferring to the IEEE EWH (Entity Web Hosting) service in 2003.

These history pages, together with the history site of IEEE Canada (<http://ieeeca/history>) and related links, are a starting point with the intent to:

- Foster an awareness of our professional history, in Canada and in Southern Ontario,
- Encourage the preservation of historically important materials,
- Collect documentation of significant historical events and to make the information widely available.

We hope that many older members will come forward bringing us information about our past and about the accomplishments of our predecessors. Particularly, we are interested in "significant achievements in electrical, electronic, and computer engineering", as defined in the "Milestones Program" of the IEEE History Center

(http://www.ieee.org/organizations/history_center/milestones_program.html).

The Current Toronto Section

The current membership totals some 3,000 including some 200 life members and 500 student members.

Over the past year, there were approximately 20 meetings of the 10 technical chapters involving 18 of IEEE's Societies, along with the annual section meeting, and the inaugural meeting of the newly formed life members chapter. Most of the meetings are in the downtown part of Toronto but the section territory includes a much larger area.

These society chapter meetings focus on technical issues covering a broad range of different interests. We encourage you to participate in these meetings as you will benefit from meeting technical specialists within your own field of interest. It is also an effective forum for industry professionals, students and others to present their own papers and other presentations as a trial for more widespread distribution. Please contact any of the chapter chairs for more information and assistance.



Mr. Richard Penn, Manager of the Market Assessment Unit at the recently formed "Independent Market Operator" addresses the PES chapter seminar in May 2003.

One recent example of our dynamic chapter program of activities is the Power Engineering Society chapter seminar held on May 1, 2003. As can be seen in the above photograph, this seminar was very well attended. Mr. Richard Penn, Manager of the Market Assessment Unit at the recently formed "Independent Market Operator" (formerly part of Ontario Hydro), presented an update of the Ontario electrical energy market after one year of operation as an independent distributor of electricity.

There are student branches, at the University of Toronto and Ryerson University, and nine more in technical and community colleges. These branches arrange a wide spectrum of activities to complement their school's formal program of studies. These volunteer leaders gain valuable experience in planning professional events and meeting with established engineers. As noted elsewhere, the Toronto Section supports these activities and efforts with significant funding of various kinds.

To complement technical specialties and student needs, the Toronto Section is developing a Life Members Chapter and plans to introduce a GOLD (Graduates Of the Last Decade) affinity group. Additionally, our section executive have recently achieved success by arranging meetings to discuss professional topics. Our Engineering and Human Environment Chapter includes education, management, personal communications, reliability, and social implications in its purview. Thus our section activities are planned to serve as wide a spectrum of member needs as possible. If you are a life member or a member who graduated within the last ten years, you are urged to join these developing activities as an active volunteer who will have an impact. To express your interest, please visit our web site or contact Section Chair, Bob Hanna.

You will find more details about the section, its members, and its activities on our web site. If you have any questions or concerns, please use the "feedback" link at the top of our home page.

These section activities are coordinated by a group of volunteers who meet about 6 times a year and conduct business between meetings using the full spectrum of electronic and traditional communication channels. The following is a list of the current members of the section executive committee:

Office	Candidate
Chair	Robert (Bob) Hanna
Vice-Chair	Kostas Plataniotis
Treasurer	Al Wallis
Secretary	Pelle Westlind
Past Chair	Ted Sargent
Educational Activities	Randy Park
Student Activities	Wai Tung Ng
Member Communication	Raymond Chik
Members at Large	Bruno DiStefano & Wallas Khella
Life Members Chapter	Bob Alden & Wallas Khella
Society Chapters	
Circuits & Devices	Emanuel Istrate
Communications	Steve Hranilovic & Andrew Eckford
Computer	George Bailak & Robert Hudyma
Dielectrics & Electrical Insulation	Jody Levine & John Densley
Electromagnetics & Radiation	Ramesh Abhari
Engineering & Human Environment	Walter Zessner & Ed Lovrek
Instrumentation & Measurement	Dennis Cecic & Florin Gagi
Power Engineering	Rong-Liang Chen
Signals & Applications	Michael McGuire
Solid State Circuits	Raymond Y.V. Chik & Khoman Phang

Nominations for 2004-2005

The nominations committee has prepared a partial slate of candidates for the upcoming election for section officers. These candidates are:

Office	Candidate
Chair	Kostas Plataniotis
Vice Chair	Open
Secretary	Pelle Westlind
Treasurer	Al Wallis

Additional nominations are invited from the membership of the Toronto Section for these positions. To be eligible, such nominations must be received by the nominations committee by September 30, 2003 (the election year).

Such "membership" nominations must be supported in writing by the signatures of ten or more voting members of the section. Nominees, to qualify for election, shall have experience in at least two section positions (not necessarily in Toronto), or in the combined opinion of the executive committee, adequate experience in the affairs of the Toronto or other sections. Nominations will remain open until September 30, 2003. Please contact Pelle Westlind, section secretary at:

416-234-0777 or pelle.westlind@ieee.org

Annual Meeting

The annual dinner meeting is the occasion for section members, volunteers, and guests to meet each other in a convivial social setting as well as a time to conduct key section activities such as the election of officers (alternate years) and presentation of awards. This year, this dinner meeting is the venue for the main centennial celebration. The photo below shows some of those attending last year's event at the Old Mill restaurant.



Section volunteers and their guests at the Old Mill restaurant.

IEEE Awards and Recognitions

Fellow Elections

Congratulations to two distinguished members of our Section for being elected by the IEEE Board of Directors to the grade of Fellow.

- Mohammad Reza Iravani for contributions to power engineering education and the modeling, design, and control of power electronic converters for power system applications.
- Farid N. Najm for contributions to estimation modeling of power dissipation in integrated circuits.

Senior Member Elevations

Congratulations also to the following members who have been recently elevated to Senior Member grade; Raviraj Adve, Armen Baronijan, Richard Billings, Dennis Cecic, Tom Chau, David Hiemstra, Anna Lawniczak, Govindan Ravindran, Konstantin Plataniotis, Eva Tarasiewicz, Ted Sargent and Malgorzata Zywno.

McNaughton Medal Award

And a special note that Tas Venetsanopoulos, will receive IEEE Canada's highest honour, the McNaughton Medal, during the Toronto Section Centennial Event on October 4, 2003. The citation is:

For outstanding contributions to the design and implementation of communication systems, digital filters and multimedia systems; IEEE; the engineering profession and society at large.

Electronic Communications

The Toronto Section has a long history of providing communication channels for members, both within and outside the section boundaries. These channels change with time as befits a technical organization; from the early days of offering technical courses to generate a surplus to offset the costs of printing and mailing regular newsletters, to the advent of e-mail and bulletin boards, to the use of the world wide web.

Our web site contains information about upcoming and past section and chapter events, along with explanations of section organization, biographies of the section volunteer leadership, and contact information (including email addresses, telephone numbers, and a convenient on-line form for direct input via the web.

You can always contact the section chair by sending an email message to section.toronto@ieee.org.

Our web site address is <http://toronto.ieee.ca>.

Our electronic newsletter, The Monthly Connection, is posted on our website at the start of each month. A short e-mail alert message IEEE Toronto E-News is sent free of charge to members and non-members alike. This e-mail message contains very brief summaries of major items and contains a link to the posted newsletter, so that you can click-and-read if you so wish. If you know someone who would like to stay informed about our meetings, seminars, courses, and other activities, please advise him/her to subscribe to IEEE Toronto E-News at <http://toronto.ieee.ca/news>.

The news page also contains an archive of past issues (since 1999) which may be useful if you did not keep back issues and need some information.

Our web site also contains links to IEEE Canada, the main IEEE website, the IEEE Canadian Foundation, the Engineering Institute of Canada, and other professional engineering organizations.

PES General Meeting 2003, Toronto, Ontario

The IEEE Power Engineering Society held its Annual General Meeting (a new meeting format replacing the traditional Winter and Summer meetings) in Toronto at the Sheraton Centre Hotel, July 13 - 17, 2003. Toronto Section Chair Bob Hanna made a presentation to the delegates at the opening session about the Section's centennial and then presented PES President John Estey with a copy of "Electricity - The Magic Medium", a book commemorating the achievements of the electrical industry in Canada, which was produced by the IEEE Canadian Region for the 1984 IEEE centennial.



Opening Session at IEEE PES 2003 General Meeting

CCECE 2004, Niagara Falls, Ontario

Many members of the IEEE Toronto Section are volunteering as members of the local organizing committee for the Canadian Conference on Electrical and Computer Engineering, CCECE 2004. Please take the opportunity to participate as it will be held at the world renowned site at Niagara Falls, Ontario May 2-5, 2004. For further information, please visit the website at <http://ieee.ca/ccece04>

IEEE Elections

This fall, two candidates have been nominated for IEEE Canada President-Elect. One is our own Bob Hanna, the other is John Plant, a member of the Kingston Section. We urge you read about the election and the candidates, then, please, vote!

There are also two Canadians, Mo El-Hawary from Halifax (Canadian Atlantic Section) and Celia Desmond (Toronto Section) running for IEEE offices - you can read about them on the IEEE Canada web site, and vote when your ballot arrives.

IEEE Toronto Section Questionnaire

Your suggestions, opinions and participation will make a difference. May we please have yours? Start by completing the questionnaire available on our web site: <http://toronto.ieee.ca>. Be sure to complete the suggestion box provided on the form.