

Major Events

- Biomedical Imaging Research Centre/ IEEE EMBS Seminar Series 2012-2013.
- Section Annual General Meeting November 21st at Windermore Manor.
- For up to date information on upcoming meetings, see our website: <http://london.ieee.ca>

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Newsletter

Issue 2, June 2013

Biomedical Imaging Research Centre /IEEE EMBS Seminar Series

Over the past year we have hosted a range of visiting exciting speakers who have highlighted many exciting new developments related to medical imaging.

September 26th 2012

Dr. Richard A. Robb -Scheller Professor in Medical Research. Director, Mayo Clinic Biomedical Imaging Resource. Rochester, Minnesota, USA. Title: The Patient Comes First.

November 21st 2012

Dr. Alexander Oraevsky -TomoWave Laboratories Inc. Houston, Texas, USA
Title: Laser Optoacoustic Ultrasonic Imaging System (LOUIS) and its Applications

January 16th 2013

Dr. Afonso Silva - Chief, Cerebral Microcirculation Unit. National Institute of Neurological Disorders and Stroke, Bethesda, Maryland, USA
Title: Anatomical and Functional MR Imaging of Conscious, Awake Marmosets

March 20th 2013

Dr. R. Glenn Wells -Department of Nuclear Cardiology, University of Ottawa Heart Institute
Title: Dedicated Cardiac Cameras—the Key to Absolute Flow Measurement with SPECT

April 17th 2013

Dr. Rohan Dharmakumar -Director, Translational Cardiac Imaging Research, Cedars-Sinai Medical Center, Los Angeles, CA
Title: Reperfusion Intramyocardial Hemorrhage: Detection, Fate and Pathological Consequences

May 15th 2013

Dr. Jens Jensen - Center for Biomedical Imaging, Medical University of South Carolina, Charleston SC, USA
Title: Modelling of Brain Microstructure with Diffusional Kurtosis Imaging

Watch our section website and email notices for future seminars . - Report by: Terry Peters, EMBS Chapter Chair.

Message From the Section Chair

Welcome to the second issue of the IEEE London Section Newsletter– *Wire*. The London Section represents more than 300 individual IEEE members and serves to promote local events significant to those members. The London section is part of to Region 7 of the IEEE (better known as IEEE Canada). We have a history of almost 70 years.

In the London section, the Power Engineering Society chapter and the Engineering in Medicine & Biology Society chapter have both been very active with near monthly seminars. We have two new chapters being launched – a joint Computer Society – Systems, Man, and Cybernetics Society chapter and a newly approved joint Communications Society – Broadcast Society chapter.

If you are interested in the rapidly evolving and exciting fields of computer systems, communications, electronics, smart power grids and

energy, you are encouraged be an active part of the IEEE London Section. Activities are a great networking opportunity.

I am the newly elected (at our November Annual General Meeting) Chairperson and am honoured to serve the local membership. All section activities are organized by volunteers. Therefore, we need more volunteers. Please consider joining the existing team of volunteers and gaining leadership experience as part of your professional development. If you are interested in volunteering or need more information, please contact any of the Section Executive members, on the last page of the newsletter.

Murray MacDonald, P.Eng. SM
murraymacdonald@ieee.org





**Science Fair
Award Winners
IEEE London Section
Awards**

Catalytic Conversion of Pine Sawdust to 5-HMF in a Packed Bed Reactor :

- Mary Nguyen,
- Linda Yang,

Improved Robotic Watering System:

- Junru (Jerry) Chen

**Lambton County
IEEE London Section
Green Science
Awards**

Senior:

Natural Vs Processed Antibiotics:

- Harshvardhan Pardeshi

Intermediate:

The Study of Cellobiose in Cellulose and Hemicellulose:

- Naima Raza

Junior:

A non-invasive glucose sensor for diabetes:

- Teal Manners,
- Sarika Sudhakar

Exhibitor:

Kids and Calories:

- Evan Freer

IEEE London section's support for Science Fair 2013

The London Section supported the London District Science Fair April 6-7 and the Lambton County Science Fair April 13 by funding awards and providing some of the judging.

Glimpse of London Fair:

With more than 150 participants, the judging was very difficult. Congratulations to the many winners: <https://secure.youthscience.ca/sfiab/londondistrict/winners.php>.



IEEE London Section Newsletter Editor Chintan Modi with award winners at Sarnia

IEEE London Section Chair Murray MacDonald with award winners at London



Glimpse of Sarnia Fair:

Lambton college, Sarnia hosted the Science fair. IEEE London section judge Chintan Modi evaluated budding Scientist's projects related to 'Green Science'. The awards were given based on research content and proposed benefits to

The winners of the IEEE Awards are listed on the left.

the society. - Report by Murray MacDonald & Chintan Modi

Recent & Upcoming Canadian IEEE Conferences and Meetings

- Canadian Conference of Electrical and Computer Engineering (CCECE) 2013 - May 5-8 in Regina , <http://ccece2013.org/>
- Graduates of the Last Decade (GOLD) Congress May 17-19 in Toronto.
- 3rd Annual Climate Change Technology Conference May 27-29 in Montreal <http://www.cctc2013.ca/>
- Computer Supported Cooperative Work in Design (CSCWD) 2013 June 27-29 in Whistler <http://2013.cscwd.org/>
- Power and Energy Society (PES) General Meeting July 21-25, 2013 in Vancouver <http://pes-gm.org/2013/>
- Electrical Power and Energy Conference (EPEC) 2013 - August 21-23 in Halifax <http://sites.ieee.org/epec2013/>
- CCECE 2014 to be in Toronto – volunteers requested

TISP Outreach *Part 2* at London Regional Children’s Museum

The IEEE has developed an educational outreach program called Teacher In-Service Program (TISP) with the objective: "To enhance the level of technical literacy of pre-university educators; to encourage pre-university students to pursue technical careers, including engineering; and to increase the general level of technical literacy of pre-university students throughout their educational careers."

More background and details is available on the IEEE Canada website at www.ieee.ca/tisp/ and at the IEEE website http://www.ieee.org/education_careers/education/preuniversity/index.html

The most recent activity by the London section was conducting two hands-on activities at London Children’s museum for National Engineering week. Activities were taken from the IEEE co-sponsored website www.tryengineering.org, which has over 100 lesson plans to choose from along with many other resources.

The first activity, entitled “Ship the Chip”, involved packaging a single potato chip in a business envelope so that it would survive travelling through the mail. Of the approximately 15 children who participated, 4 had the confidence to submit to the final test of mailing their package from

home to the museum. As the photo of the “as received” internal packaging attests, Canada Post won this round! However, I am sure all the participants learned something about the design process.

The second activity, entitled “Rubber Band Racer”, involved constructing a cardboard “racer” powered by one or more rubber bands. Again there were about 15 participants (with parental assistance as the photo shows). Because of the younger age of the participants, they did not have much success but proudly took home their racers to display in their rooms. LCM is interested in repeating this event next March.

If you are interested in volunteering for this or other education outreach activities, please contact Murray MacDonald at 519-859-8723 or murraymacdonald@ieee.org



Photographs of TISP event



<http://www.ieee.org/discounts/>

Members Discount
Insurance, Travel, Technology, Home/Office, Risk Management Resources,



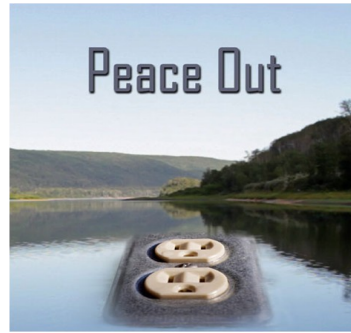
PES Chapter update:

Please, welcome our new Vice-Chair, Dennis Michaelson.

An event was organized on May 23, 2013, in conjunction with the Bluewater Sustainability Initiative and the PEO Sarnia: "Peace Out" Documentary Screening and Discussion.

Western Canada is experiencing an "energy bonanza of unimaginable proportions" that has led to countless jobs and resource revenues as

well as charges of environmental damage and the privatization of public



assets. In "Peace Out", film director Charles Wilkinson looks at the deeper causes of what's going on and how we all play a role in the energy system business. Many listeners were benefited by the screening of the documentary, followed by a moderated panel discussion.

- Report by Maïke Luken
maïke.luiken@ieee.org

Documentary Screening – May 23
 – Lambton Inn

Student Members – Update

IEEE Canada Student Paper Competition – call for submissions through your branch councillor:

This year the deadline for this competition for 2013 was June 1st.

http://www.ieee.ca/students/pap_comp.htm

Note for the Branch Counsellors: Please, send two versions of your entry – one with identification information and one without to maïke.luiken@ieee.org

Call for Student Papers and Posters - GHTC 2013:

The 2013 IEEE Global Humanitarian Technology Conference (GHTC 2013) to be held in Silicon Valley, California, USA from Oct 20-23, 2013. As part of the conference, we are pleased to inform you about the Student Paper and Student Poster Competitions.

These contests are open for IEEE Student Members and Graduate Student Members who can submit their work related to Humanitarian Technology (developing projects/products) for either contest.

More details about the contest are provided through the following links.

Details of Student Paper Contest - <http://www.ieeehtc.org/student-paper-contest/>

Details of Student Poster Contest - <http://www.ieeehtc.org/student-poster-contest/>

Submission Portal - <https://ieee-ghtc-contests.myreviewroom.com/>

For any queries regarding the contest, please contact the respective Contest Chair.

Robert Vice, Humanitarian Lead, IEEE MGA SAC, Chair, Student Paper

Contest, GHTC 2013, vice@ieee.org

Ramesh Nair, Branch Chapter Student Rep, IEEE MGA SAC, Chair, Student Poster Contest, GHTC 2013, rameshnair@ieee.org

IEEE Canada Student Congress – training and idea exchange for new student branch executive volunteers

Please, reserve the date: September Sept 13 to Sept 15.

Cable testing demonstration at London Hydro during WIE tour
 April 23 (Please refer to page 6 for more details)



NEW Power and Energy Society Scholarship – Application deadline June 30th

For the first time, the IEEE Power & Energy Society is offering the **Scholarship Plus Initiative to undergraduate students in Canada**. The scholarship program benefits undergraduate students who may be interested in careers in power and energy engineering.

The Initiative was launched in response to the looming workforce shortfall in the power and energy industry. Over the past two years, PES has distributed over six hundred and forty-two thousand dollars in scholarships to 265 students from 109 U.S. universities.

This year, PES is looking to have want 700 applications in order to **distribute more than 400 scholarships to electrical engi-**



neering students in the United States and – for the first time – in Canada.

PES is offering up to seven thousand dollars and assistance with career experience opportunities to qualifying students! Applicants must be full-time students working towards a bachelor's degree in electrical engineering, citizens or permanent residents of the U.S. or Canada, willing to take power engineering courses and have a GPA of at least 3.0.

Please refer to www.ee-scholarship.org for information

Updates from the IEEE Canadian Foundation (ICF)

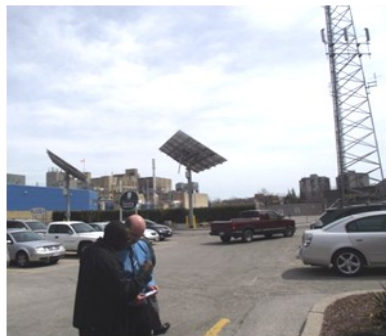
The IEEE Canadian Foundation cultivates relationships and resources to advance the IEEE core purpose to foster technological innovation and excellence for the benefit of humanity.

One of the great contributions of the ICF is the support of IEEE student branches and students through various awards and contributions.

Please visit the website: <http://ieeecanadianfoundation.org/EN/> and see what grants have been approved.

To fulfill its role, the IEEE Canadian Foundation relies on donations to support McNaughton Centres across Canada, award scholarships and grants to innovative projects; and administers donor designated funds that support a variety of humanitarian projects and peer recognition programs of IEEE in Canada.

Please, consider the ICF when making donations. <http://ieeecanadianfoundation.org/EN/donations.php>



UPCOMING DEADLINES: **August 15** is the deadline for the following (all of these apply to IEEE Canada Section units):

- Special Grants - applications by Student Branches, Sections, Chapters & Affinity Groups
- Vehicular Technology Travel Grants – applications are usually by Graduate Students

See <http://www.ieeecanadianfoundation.org/EN/grants.php> for full details and application or nomination forms.

Discussions on solar panel demonstration installation at London Hydro during WIE tour

IEEE Member Discounts

See the advantage ▶

Up Coming Event

Tour of German Solar Factory organized by GOLD see website for details
<http://london.ieee.ca>

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Dr. Weiming Shen

Sr. Past Chair

Dr. Maike Luiken,

Vice Chair

Trevor Grant

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**For
WIE**

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IEEE Groups



What is IEEE WIE?

IEEE Women in Engineering (WIE) is the largest international professional organization dedicated to promoting women engineers and scientists. The mission of IEEE WIE is to facilitate the recruitment and retention of women in technical disciplines globally. IEEE WIE envisions a vibrant community of IEEE women and men collectively using their diverse talents to innovate for the benefit of humanity. For more information, please visit http://www.ieee.org/membership_services/membership/women/women_about.html. All IEEE members are eligible to join IEEE WIE, and the membership is free for student, graduate student and life members.

News from WIE London Section

Formed in 2010, the WIE Affinity Group for IEEE London Section is dedicated to introducing WIE to women in this field, and providing them with opportunities for networking and self-development.

Some events held by IEEE WIE London in the past are:

- Tour of London Hydro, April 23, 2013.
- CSTAR (Canadian Surgical Technologies & Advanced Robotics) Lab Tour, Sept. 2011.
- Next Generation Health Informatics for the Service of Critical Care in Canada and Beyond, by Dr. Carolyn McGregor, May 2011 (joint WIE-EMBS event)

For more information on IEEE WIE London Section activities, please contact *Chair Sanny Huang* xhhuang725@gmail.com or *Vice-Chair Shawon Senjuti* shawonsenjuti@gmail.com.

- Reported by: Shawon Senjuti

IEEE Societies & Communities online

Tour of London Hydro

This WIE event was held for members of the IEEE London Section on April 23, 2013. The event started off with presentations by London Hydro engineers on various aspects of the company, including its role in the electricity market and smart-grid initiatives. After the presentations, the group had a tour of the various facilities of London Hydro, including Solar Array, Control Room, Network Operation Centre, Substation Maintenance, Instrumentation & Control, and Watts Lab. Brief talks were conducted on the operations of each department. There were 18 visitors attending this event, including 15 IEEE members and 3 guests. The event was well-received and provided a great learning and networking experience.

- Reported by: Shawon Senjuti, Vice-Chair, IEEE WIE London Section

