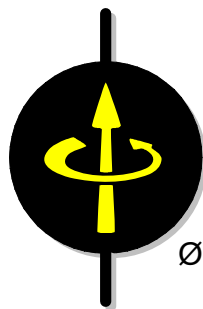


CURRENT



SOURCE

The IEEE North Saskatchewan Section Newsletter

REPORT FROM THE CHAIR

Welcome from the IEEE North Saskatchewan section. We have had a number of activities since the last Current Source including a Power Systems Seminar from IEEE Canada President Bill Kennedy, our Annual General Meeting with a presentation by Brent Jellicoe from Kensington Resources talking about diamond exploration in Saskatchewan, and an Educational Workshop from Douglas Gorham, Director of Educational Outreach for IEEE Educational Activities.

Upcoming activities include a seminar on March 22 about the new XM Satellite Radio now available in the United States with proposals for service in Canada, the Canadian Conference on Electrical and Computer Engineering (CCECE) being held May 1-4 in Saskatoon, and planned also for later in May, a seminar on micromachining using X-Ray Lithography at the Canadian Light Source Synchrotron.

I would like to congratulate Wayne Timm, from SaskPower, on achieving IEEE Senior Member grade. The requirements for this membership grade are "... a candidate shall be an engineer, scientist, educator, technical executive or originator in IEEE-designated fields. The candidate shall have been in professional practice for at least ten years and shall have shown significant performance over a period of at least five of those years." If you are eligible to upgrade to IEEE Senior Member and are interested, please contact me at kostiuk@sask.trlabs.ca and we can begin the application process.

The IEEE has launched a new portal web site for its members. Check out "<http://www.ieee.org/myieee>". This site is meant to provide control over your IEEE membership, access to educational materials, and other services like travel and discounts. This is a

new initiative from the IEEE so please provide us with your feedback.

There have been a couple of changes to the IEEE North Saskatchewan executive. Trevor Hamm, from PMC Sierra, has undertaken the duties of Treasurer and Bill Hayne, from March Consulting, has undertaken the duties of Secretary. Any of the executive would be more than happy to help you with regards to IEEE activities or suggestions so please feel free to contact us.

I hope many of you are able to attend some of our upcoming events and we look forward to increasing the activities and involvement in the IEEE North Saskatchewan section.

Andrew Kostiuk
IEEE North Saskatchewan Chair

CCECE 2005

Planning for this year's Canadian Conference on Electrical and Computer Engineering is well underway.

Authors from around the globe will converge on the Saskatoon Inn May 1 - 4 to present over 500 papers describing their latest research on all areas of electrical, electronic and computer technology.

The Conference Committee invites you to join an international audience and experience IEEE Canada's flagship event. Visit our web site for details (www.ieee.ca/ccece05). Contact the Conference Secretariat if are interested in volunteering (denard.lynych@ieee.org)

XM SATELLITE RADIO

One of the hottest new technologies around is Satellite Radio. Saskatoon has been a contributor to XM Radio's growth and success. Come and listen to a local industry speaker talk about this revolutionary radio technology and how a Saskatoon company, SED Systems (www.sedsystems.ca) has been a part of it.

DETAILS: Tuesday, March 22
12:10pm to 12:50pm (lunch)
Candle Room, Atrium Building
111 Research Drive

This is a free event sponsored by the North Saskatchewan Section IEEE and SED Systems. A map is included in this issue of the Current Source to show you where parking is available. Feel free to bring your own lunch or pick up a lunch at the cafeteria next door to the presentation. Please register with Vera Ljubovic <ljubovic@sask.trlabs.ca>.

Dan Coode Membership Development

About the Presentation

XM Radio Satellite Holdings is a relative newcomer to the world of broadcasting and a pioneer at the same time. In 15 years they have moved from a business plan to providing a radio service to more than 3 million subscribers. XM today is a double success story. Not only have they developed the technology to provide their service but they also managed their progression from a concept company to a service provider. XM Satellite Radio also has a local connection. SED Systems has contributed to, and is continuing to contribute to XM's success by developing and maintaining a number of XM's systems. SED Systems (www.sedsystems.ca) is a communications engineering firm that provides custom built solutions for satellite manufacturers, operators and service providers.

The presentation will highlight some of the characteristics of the XM Satellite Radio systems, how they work together and how their design meets the system requirements. The presenter is Dave Peters, an employee of SED Systems. Dave was the software lead on the Uplink Delivery System delivered to XM in 1991 and is now the Lead Systems Analyst for all the Uplink Systems for the ongoing work for XM.

For more information about XM and its service see www.xmradio.com and www.xmfan.com.

STUDENT BRANCH REPORT

Once again, I bid you all good day, and graciously welcome you to an exciting update from the most active IEEE Student Branch in Canada. Since my last update in October, your friendly neighbourhood IEEE has been working hard... offering initiatives to bolster and enrich the academic, charitable, and social aspects of your lives.

Academic

Tyler Nechiporenko, our resident hobbit, has done a great job organizing this year's academic activities. SPARC (Small Practical And Realistic Circuits) has introduced many eager 2nd year EE's to the electrical laboratories while constructing and analyzing useful circuits, such as FM transmitters. Students have gotten their hands dirty in soldering and TraxMaker workshops, and have been offered transcript salvaging tutorials from Tyler's cranial encyclopaedia. Chris Mullens also created an easily accessible free online exam file, alleviating exam woes for students throughout the college.

Charitable

Once again, the annual Big Brother Christmas Party was a success, providing approximately 25 unmatched boys with gifts, a healthy dose of Christmas cheer, and the elation of attacking a 250 pound man with popcorn.

As described later on in the HVC Report, HVC is coming up March 19th and 20th. You can support this exceptional event by volunteering as a referee, joining a team and soliciting donations, selling raffle tickets, and/or attending the HVC Pub-crawl and Token Night (March 17th and 19th respectively).

All event proceeds go to this year's charity, The Boys' and Girls' Club of Saskatoon. Please take the time to get involved as we try to beat last year's total of \$22,700 raised for charity. C'mon and do it for the kids!

Social

The year has been far from boring, thanks to Brett Lovas... the busiest man in show business. Rest assured any IEEE event is surely a memorable occasion, but here is a couple you don't want to miss. Want to be the classiest patron at your favourite restaurant, or know how to properly conduct yourself around a potential employer? Don't miss the IEEE Etiquette Seminar! The seminar is being held on

March 30th from 6:00-8:00pm at The Odeon. After honing your table manners, come and display your etiquette prowess at the IEEE Year End Banquet. (April 1st, details T.B.A.) A perennial favourite, the banquet includes exquisite cuisine, many awards (both prestigious and hilarious), the infamous year end slide show, general hijinks, and infinite good times. The Billinton Cup is taking place upon distribution of this article, while the professors will likely grow tired of hoisting the trophy one more year, an underdog win by the students may call for congratulations from the Prime Minister or perhaps a spot of tea with the queen. For more details, please see the "Upcoming IEEE Events", brought to you by Mr. Lovas.

Personal and Professional Development

From January 6th to 9th, a contingent of 35 EE students journeyed to Calgary. Students had the opportunity to attend the U of C's Career Fair comprised entirely of EE firms, while also getting tours of Altalink and Big Rock. Once again, the excursions proved to truly build the camaraderie amongst our EE peers away from our textbooks. Thanks to Paige Fitzsimmons for organizing this year's trip.

On February 21st and 22nd, the student branch successfully hosted the 3rd annual IEEE Illumination Conference. Please read the Illumination article for information regarding this ground breaking conference.

Salutation from the Oval Office

I hope that we have contributed favourably to some essential aspects of your lives this year. If you liked what the IEEE has done for you, please consider getting involved with IEEE Executive or councils next academic year. Executive applications will be out any day and elections will be March 23rd at 4:30pm, so become a leader within the greatest student organization on campus!

Speaking of leaders, many thanks to this year's IEEE Executive for their hard work and tireless enthusiasm: Chris Mullens, Jon Kostyniuk, Kevin Richardson, Paige Fitzsimmons, Tyler Nechiporenko, Brett Lovas, Terri Haffick, Ryan Dusyk, and Kyle Ness.

Regretfully, I must bid you adieu, as I move from this fine institution to industry as an Engineer-In-Training. I'll be working hard to keep the lights on in Calgary while spreading a little bit of the Saskatchewan flava'.

However, before I go, I'd like to take this opportunity to thank all you EE students for making this year truly wonderful. Whether supporting our student branch activities through participation, committee involvement, or serving on the executive, I personally feel indebted to every one of you that have given your time to bettering the lives of others. Be sure to make time for the things that you have found to be truly rewarding during your university careers, be active, and stay in touch.

For more information regarding the U of S IEEE Student Branch, please see our website:

<http://ieee.usask.ca>

Thanks for the good times and I wish you all the best in the future!

Dan Chapman
IEEE Student Branch Chair



HIGH VOLTAGE CLASSIC

The HVC is a 32 hour charity road hockey tournament held in front of City Hall on 23 Street in Saskatoon. 64 Teams participate yearly in this event. It has been running for the past 19 years and continues to grow every year. Last we broke our fundraising record and raised over \$22,700 dollars for a Hemophilia Saskatchewan. Last year, fundraising efforts pushed the cumulative total for the past 19 years to over a quarter million dollars. Premier Calvert even recognized the efforts of the planning committees. Funds are raised by participants in the tournament. For those interested in playing, registration has already begun and will continue to do so until all team slots have been filled. A \$40 dollar registration fee applies. Appropriately, nearly all of the prizes for the event are for the top fundraising individuals and top fundraising teams, to help keep focus on the true purpose of the event. Here is some contact details where further details can be found.

Web: www.highvoltageclassic.com
Voice Mail: 242-7878 (Please Leave Message)
Email: hvc@ieee.usask.ca
Charity: Boys & Girls Clubs of Saskatoon

Registration packages can be picked up in the Electrical Engineering Office in the Engineering Building at the U of S Campus. Details can also be found on the website.

NSS LOOKING FOR WEBMASTER

The North Saskatchewan Section is looking for an individual to maintain our website. Please email Andrew Kostiuk (kostiuk@sask.trlabs.ca) if interested.

Events concluded on Saturday evening with a formal banquet. Dr. Findlay, then made his keynote speech, counseling students on the transition from university life to industry, including invaluable job hunting and interview tips.

Both student and professional attendees were extremely impressed with the conference's various facets. Students have approached the branch, eager to become more involved with the IEEE, and next year's Illumination committee is nearly assembled.

Led by Terri Haffick, this year's committee was comprised of Ryan Olde, Jamie Walker, Brett Antymniuk, Christopher Roy, Jared Epp, and Dylan Carlson. Great work team, we all look forward to the 4th annual Illumination Conference in 2006!

For more details feel free to visit the conference website at <http://ieee.usask.ca/illumination>.

Dan Chapman
IEEE Student Branch Chair

AN ILLUMINATING EXPERIENCE

The third annual Illumination Conference was held on January 21 & 22. From a technical standpoint, the conference aims to inform undergraduate and graduate students of emerging trends and technologies developing within the workplace which are not covered in the classroom. On an interpersonal level, attendees are presented with the means and guidance to advance personal and career development skills, both enriching the students' university experience and facilitating with the transition from academia to industry.

On Friday January 21, attendees toured the Cory Potash Mine and the neighboring Cory Cogeneration Power Station. A casual Wine & Cheese reception followed.

Dr. Ray Findlay, 2002 IEEE World-wide President, opened the conference on Saturday with a motivating discussion on leadership skills. This presentation provided an introspective look into oneself, while also highlighting how personal actions and mannerisms communicate to an audience.

Illumination's technical lecture topics included:

- ✦ Industry employment trends and growth patterns (Richard Hird -- AltaLink Calgary)
- ✦ Communications equipment utilized in the power industry (Richard Hird -- AltaLink Calgary)
- ✦ Arc flash safety in high voltage power systems (Kerry Heid – President of Magna Electric Corp.)
- ✦ Patent application and acquisition (Professor David Dodds — University of Saskatchewan, TR Labs)

Besides attending speeches, students had the opportunity to browse corporate displays and network with industry professionals, speakers, and professors. Approximately 85 individuals attended, including 70 student members (four making the long trip from Lakehead University in Thunder Bay, Ont.), and 15 industry and university representatives.

2004 / 2005 STUDENT BRANCH SOCIAL EVENTS

NSS BBQ - Sept. 28

Bladder Buster - Oct. 19

Mech-Elec Pub Crawl - Nov. 5

Prof./Student Bowling - Nov. 13

Big Brother Christmas Party - Nov. 25

Calgary Trip - Jan. 6-9

Winston's Beer Night - Saturday, March 5, 7pm

Billinton Cup - Wednesday, March 9

HVC Pub Crawl - Thursday, March 17

HVC Token Night - Friday, March 18 (Joe Dogs)

Year End Banquet - Friday, April 1

IEEE NORTH SASKATCHEWAN SECTION EXECUTIVE OFFICERS

Chair Andrew Kostiuk kostiuk@sask.trlabs.ca	Bus: 668-9309	Vice-Chair Denard Lynch denard.lynch@young.usask.ca	Bus: 966-5473 Fax: 966-5407
Student Branch Counselor Rama Gokaraju rama.krishna@usask.ca	Bus: 966-5385 Fax: 966-5407	Past Chair Ross Elliott rr.elliott@sasktel.net	
Membership Development Dan Coode dan.coode@ieee.org		Secretary Bill Hayne trevor_hamm@pmc-sierra.com	
Grad Student Representative Joel Frey jbf911@mail.usask.ca		Treasurer Trevor Hamm bhayne@marchconsulting.com	
Student Branch Chair Dan Chapman d.chapman@ieee.org	Bus: 966-5423 Fax: 966-8710	McNaughton Centre Director Kevin Richardson mcnaughton@ieee.usask.ca	Bus: 966-5423 Fax: 966-8710
Educational Activities Chair Jeremy Gates ja_gates@hotmail.com			

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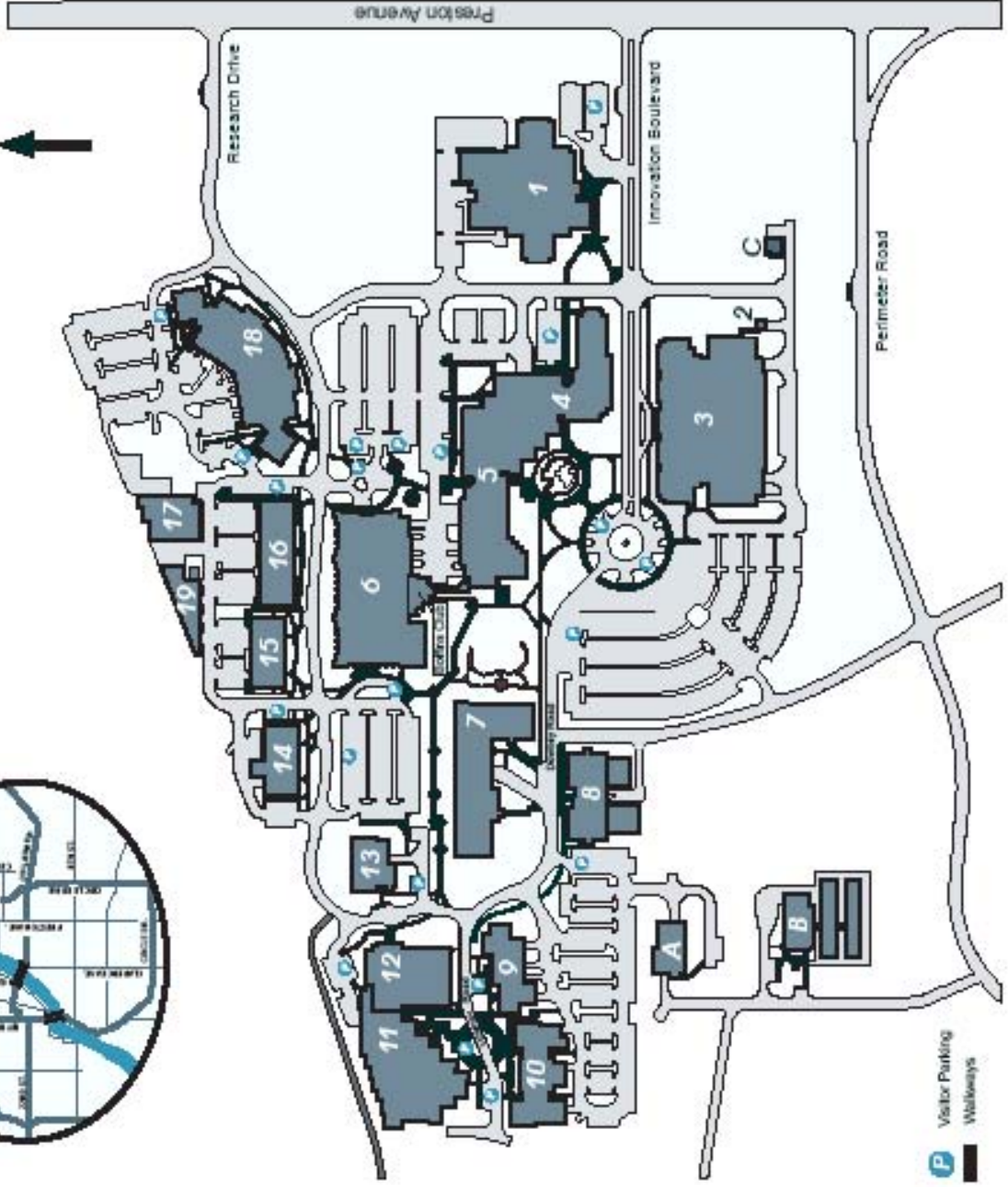
The Current Source
c/o University of Saskatchewan IEEE Student Branch
Box 41 Engineering Building
57 Campus Drive
Saskatoon, Saskatchewan S7N 5A9





Saskatoon, Saskatchewan
Canada

- 1. NATIONAL HYDROLOGY RESEARCH CENTRE
11 INNOVATION BOULEVARD
- 2. CANADIAN SPACE AGENCY
305 RESOURCES ROW
- 3. SED SYSTEMS
18 INNOVATION BOULEVARD
- 4. THE GALLERIA
10 INNOVATION BOULEVARD
- 5. SASKATCHEWAN RESEARCH COUNCIL
15 INNOVATION BOULEVARD
- 6. THE ATRIUM
111 RESEARCH DRIVE
- 7. RESOURCES RESEARCH CENTRE
422 DOWNNEY ROAD
- 8. DR. JACK McFAULL BUILDING
421 DOWNNEY ROAD
- 9. 411 DOWNNEY ROAD
- 10. DR. BURTON CRAIG BUILDING
407 DOWNNEY ROAD
- 11. L.F. KRISTIANSON BIOTECHNOLOGY COMPLEX
410 DOWNNEY ROAD
- 12. NRC/PLANT BIOTECHNOLOGY INSTITUTE TRANSGENIC PLANT CENTRE
100 RESEARCH DRIVE
- 13. BIO PROCESSING CENTRE
107 RESEARCH DRIVE
- 14. 108 RESEARCH DRIVE
- 15. 110 RESEARCH DRIVE
- 16. 112 RESEARCH DRIVE
- 17. SHOPS/MAINTENANCE/ENERGY CENTRE
1 NORTH ACCESS ROAD
- 18. THE CONCOURSE
110 RESEARCH DRIVE
- 19. STORAGE BUILDING
3 NORTH ACCESS ROAD
- A. U of S SERVICES FACILITY
- B. U of S GREENHOUSE
- C. SASKTEL REMOTE SWITCHING STATION



P Visitor Parking
Walkways