



# CSEG Winter Newsletter Edition

## GEOPHYSICS MENTORSHIP PROGRAM

The Mentorship Program will further the knowledge, skills and personal attributes necessary in helping students become successful geophysicists.

A professional's advice, help and knowledge is invaluable to help shape students into becoming productive and confident geoscientists. Matching students with well-chosen mentors has a positive impact on their careers. A mentor is someone with experience and unique talents, willing to share ideas and lessons learned on a regular basis. It is like a teacher-student relationship, except that the students have the benefit of one-on-one tutoring.

### How It Works:

The CSEG has created the opportunity for mentoring relationships to occur between students studying geophysics and industry geophysicists. Interested applicants first need to fill out the mentor or mentee application form. Following this step the Mentorship Committee matches the student with a professional geophysicist who has similar interests. Participants are then contacted by email or phone by the program coordinators to ensure a successful pairing. The mentor/ mentee pair is expected to coordinate a 15-25 minute conversation at least once a month to allow for the mentoring process. Before each meeting, students should have a few questions they are interested in asking. This will help to initiate pertinent conversations and also give them a chance to get to know their mentors better.

### To Apply:

If you are interested in participating in this program please fill out the application forms that are on the CSEG website at [www.cseg.ca/students/](http://www.cseg.ca/students/) and contact [mentorship@cseg.ca](mailto:mentorship@cseg.ca).

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## CSEG Outreach at the Western Inter-University Geoscience Conference in Regina, Sask.

*Aaron Foyer*

Mike Smorodin and I recently had the opportunity to attend the Western Inter-University Geoscience Conference (WIUGC) in Regina, Saskatchewan to meet students, introduce them to geophysics and the CSEG and with any luck, recruit fresh new members. The CSEG was a sponsor of the conference, which had a total of 120 students attend. The CSEG helped students from UBC cover some of their conference costs, which allowed UBC to have a strong member presence at the conference.

The event was held at the Travel Lodge Regina Conference Center, and began on the Thursday afternoon with a career-fair for students. There were a number of Geoscience professional organizations, societies and mining companies searching for future graduates to fill their ranks. Notably, Trident Energy was the sole representative of the Oil & Gas industry. Among the students, there was a shockingly high geology-to-geophysicist ratio. More ominously, large proportions of the students had seldom heard of geophysics, but were all keen to try to understand it, at least at a very basic level.

The next morning the academic portion of the conference began. Students were given the option to attend one of two events. The first was a core-logging workshop with legendary geologist Dr. Don Kent at the Subsurface Core Laboratory. A \$700 per head workshop offered *pro bono* for the conference by Dr. Kent. The second option was a driving tour of the Co-op refinery, which refines more than 100,000 barrels of oil per day. This was an opportunity for students interested in oil and gas to see what happens to all the fluids extracted as the result of their exploration work.

The afternoon on Friday included four talks given by professionals from Cameco and BHP Billiton as well as academics from the University of Saskatchewan and the Saskatchewan Geologic Survey. This was done mostly for recruiting, and again lacked any Oil and Gas participation.

The Saturday was dominated by student talks, with a total of 9 students talking about their graduate, undergraduate or doctorate level thesis. It was the job of Mike and I to listen, evaluate and rank the talks and eventually pick top geophysics speaker.

The final event of the conference was a banquet, where students dressed to the 9's. Keynote speaker Jason Craven charmed the audience, and spoke of being a new grad working as an exploration geologist. During dinner, the CSEG presented James Welles with the prize for top geophysics speaker. His undergraduate thesis was an evaluation of the P and S wave velocities in volcanic rocks with changing porosities. As James explained, with a better understanding of seismic properties of changing volcanic rocks, geophysicists could help in determining when a volcano is becoming increasingly active.

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The highlight of the conference was its organization. The WIUGC committee of the University of Regina deserves full credit for the obvious time, effort and thought that went into the conference. There was not a fault at the conference. They were excellent hosts to their sponsors and ambassadors to the city of Regina for the students.

*Photo Left to Right: Aaron Foyer, James Welles (the winner of best geophysics talk of the WIUGC) and Mike Smorodin*



The WIUGC will be held in Vancouver January 3-5, 2013 run by the students of UBC. With some luck and a lot of work, they can pull off a similar calibre of conference.



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## **AESRC 2012**

The CSEG is sponsoring the 2012 Advances in Earth Science Research Conference (AESRC) taking place at Queen's University in Kingston, March 23rd through 25th. ASERC is a student conference that is planned by earth science students at the University of Ottawa, Carleton University and Queens University. The goal of the conference is to provide a friendly atmosphere to share and discuss ideas while presenting earth science research through seminars and posters. The CSEG University Student Outreach Committee will be sending two representatives to take part in conference activities, network with students and promote membership within the CSEG. More information can be found on the conference website: <http://geoladm.geol.queensu.ca/AESRC2012/>.

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## **AUGC 2011**

The Atlantic University Geoscience Conference (AUGC) is one of the most successful student conferences in the region. This year is the 61<sup>th</sup> anniversary of the event and it was hosted by Memorial University of Newfoundland. Approximately 180 geoscience students attended the conference. These students came from the following Atlantic Universities: St. Francis Xavier, St Mary's, Acadia, Memorial, Dalhousie, and the University of New Brunswick. The conference hosted 16 student presentations and 6 posters. The CSEG award for the best Geophysical Presentation, which included a \$300 cash prize, was awarded to 4<sup>th</sup> year Earth Science student, Andrea R. Christians from Dalhousie University in Halifax, Nova Scotia.

Students also had the opportunity to attend field trips around St. Johns, which included Reservoir Core from the Jeanne d'Arc Basin, Holyrood which is A Geological Tour Through The Eastern Avalon High-Alumina Belt, Eastern Avalon Zone, Newfoundland, Bell Island Field Trip where the Cambrian-Ordovician rocks of Bell Island are famous for their trace fossils, St. John's Local Geology and a course on Flat Rock Structural Geology. Students from different geoscience departments from the six Atlantic universities had the opportunity to create ties with fellow students, meet researchers from other universities, and network with industry professionals. The CSEG was a proud sponsor of this event and volunteers Stephen Kotkas (Sigma Explorations) and Adam Flynn (RPS Boyd Petrosearch) attended the conference on behalf of the CSEG.

On the first night of the conference, the Challenge Bowl took place Johnson Geoscience Center hosted by Sarah Trend of ExxonMobil. Each university was represented by two students, with the winning team being Ky Hughson and Mike Richards from the University of New Brunswick. They look forward to competing in next year's CSEG Convention Challenge Bowl finals in Calgary! All in all the 2011 AUGC was very successful. A huge part of AUGC success stems from the ongoing efforts of the organizing committee. Key organizers were Sheldon Barron (AUGC 2011 Chair), Monica Barrington, Liany Selvis, Larry Gray, Steven Fraser, Steve Porter, Katie Power, Jessee Baldwin, Kyle Foley, Megan McDonald and Ashley Saunders. Students look forward to attending the 2011 AUGC next fall at Dalhousie University in Halifax, Nova Scotia.

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## **2012 Challenge Bowl**

The CSEG Foundation Outreach Committee invites teams of two students from any university or college to enter the 2012 Western Canada Challenge Bowl final, which will be held during the annual convention, *Geoconvention 2012: Vision*, May 14-18, 2012. The Challenge Bowl gives post-secondary students an opportunity to test your geophysical and geological knowledge in a fast-paced, fun competition.

Eight teams compete against each other to answer single or multiple choice questions on a range of geophysical and geological topics. The prize for the winning team is an expense-paid trip to the SEG Annual Meeting in Las Vegas (November 4-9, 2012) to compete in the SEG Challenge Bowl final against students from all over the world and have the chance to win valuable cash prizes.

Participants must be CSEG members. If you are not a member please visit <http://www.cseg.ca/students/student-info.cfm>. Student membership dues in 2012 are generously sponsored by GEDCO.

The CSEG-F will also award some travel grants for students coming to the convention to participate in the Challenge Bowl.

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## **IBA**

This year will mark the AAPG Canada Region's Fifth Annual Regional AAPG Imperial Barrel Award Competition to be held on March 16, 2012 here in Calgary. AAPG's Imperial Barrel Award Program is an annual prospective basin evaluation competition for Geoscience graduate students from universities around the world. University teams compete to win scholarship funds for their Geoscience department and the international recognition that comes from competing or winning in the competition. The program is rigorous and contributes to AAPG's mission of promoting petroleum Geoscience training and advancing the careers of Geoscience students.

This is the biggest year yet for the competition with teams from University of Alberta, University of Calgary, University of Western Ontario, McMaster University, Dalhousie University and Memorial University participating. Over the past several years the Canada Regional winning teams have gone on to finish fourth, third and, second in the Global Competition. This year our Regional Competition winner will go on to compete in Long Beach, California in the Global Competition, with hopes of placing in the top again!

AAPG Canada is actively looking for sponsorship to help get our Canadian teams together in Calgary for our Regional Competition. Sponsors will all be acknowledged and are welcome to attend the Regional event, if they wish, as a judge or simply to meet these top

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level students for possible recruitment opportunities. This program has been viewed as excellent by sponsors from the last four years and many have renewed their commitment year after year. Canada's big challenge is getting all teams together in Calgary! Although each student ends up putting in over 200 hours of work for their presentations, they found the program one of the most eye-opening experiences they had in relation to Petroleum Geology, which is the point of this program.

More information about the program can be found at: <http://www.aapg.org/iba>. Please contact one of the Competition Coordinators: Tiffany Piercey ([tiffany.c.piercey@esso.ca](mailto:tiffany.c.piercey@esso.ca)) or Ryan Lemiski ([RLEMISKI@talisman-energy.com](mailto:RLEMISKI@talisman-energy.com)) if you are interested in sponsoring the competition.

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## **CUPC**

*Akshay Gulati*

From 13<sup>th</sup> to 16<sup>th</sup> of October 2011, University of Saskatchewan hosted the annual Canadian Undergraduate Physics Conference, an event run for and by Canadian undergraduate physics students. CSEG was one of their main sponsor for the events.

CUPC provides opportunity to students, of presenting their research to peers. The oral and poster sessions allow students to gain valuable speaking experience and insight into exciting developments in Canadian and international physics. Students from various part of Canada showed inclination to pursue studies in geophysics after completion of their degree. CSEG captivated everybody's interest in very first impression. There were lot of sign ups for membership and mentorship program was the center of attraction. CUPC in association with CSEG and other sponsors, hosted about 150 student delegates this year

The U of S event highlight was diverse keynotes: Dr. Lee Smolin and Dr. Stephen Wolfram spoke by teleconference — Dr. Smolin on doubly special relativity, and Dr. Wolfram on cellular automata and physics. Dr. Bill Unruh spoke on black holes and hydrodynamics, while the U of S' own Dr. Michael Bradley detailed efforts using precision measurements to redefine kilogram using known constants.

CUPC expanded its focus at this year's grad fair with the participation of CSEG, which offered delegates insight into a career in geophysics. CSEG gathered great deal of attention from Universities outside Alberta region. Faculties of these universities were keen to know about CSEG mentorship program.

Student talks and posters ran the gamut, covering theoretical to industrial physics, and everything in between. In the oral/poster competitions, seven students were awarded Maple 15 for their outstanding presentations.

CUPC 2012 will be held at the University of British Columbia. Look to <http://cupc.ca/> for more information about this year's conference and next year's event.

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# GeoSkills 2012

## February 1



Location: Metropolitan Centre Calgary  
Cost: \$40 until December 31 / \$45 beginning January 1  
Registration Deadline: January 25, or while tickets remain  
Space is limited, register today!

### Topics Include:

- Adventures in Scientific Drilling in Antarctica
- SAGD: How we make it work – A G&G Perspective
- Networking
- Career Management
- Petrophysics
- Environmental Geology
- and more!

SESSIONS

LUNCH

EVENING  
MIXER

Visit the website for more information and to  
**REGISTER**

<http://www.apegga.org/events/gecskills.html>

PRIZES



**Attn: Undergraduate Geophysics Students  
Register for CSEG's 4th Annual GIFT**



Tour Calgary's seismic industry, and interact with passionate professionals and peers.

Gain Insight into the world of professional geophysics.

## **Geophysics Industry Field Trip**

**Event date, June 21st, 2012  
Register by May 31st, 2012 at  
[usofieldtrip@cseg.ca](mailto:usofieldtrip@cseg.ca)**



**Explore Careers in:**

Survey Design  
Data Acquisition  
Processing  
Interpretation

sponsorship opportunities  
still available!



"The most pathetic person in the world

is someone who has **SIGHT**

but has no..."

-Helen Keller

**VISION**

**2012.05.14-18**

**www.geoconvention.com**

GeoConvention 2012: Vision will pave the way for economic, environmental and energy recovery in Western Canada. Over 100 exhibiting companies and 4,000 conference attendees will convene at the Calgary TELUS Convention Centre to view new technologies, explore new business opportunities and learn from industry experts. The 2012 Convention is the ultimate opportunity to gain insight into your profession, share experiences with others and gain knowledge from industry experts.

## Travel Subsidy

Are you a student who is interested in attending the 2012 GeoConvention? The CSEG offers Travel Grant Subsidies for students to attend the GeoConvention as well as many other Geoscience related events. The deadline for the CSEG travel subsidies to the GeoConvention is February 1<sup>st</sup>, 2012. To ensure your application has the best chance for approval, be sure to submit it no later than January 25<sup>th</sup>, 2012. Check out the Travel Grant & Learning Subsidy information and application form on the CSEG website for more details. Feel free to contact the CSEG Travel Grant & Learning Subsidy committee at [foundationfunding@cseg.ca](mailto:foundationfunding@cseg.ca) for more details.

<http://www.cseg.ca/about/cseg-foundation.cfm>

[http://www.cseg.ca/about/\\_docs/CSEG-Foundation-Funding-Guidelines.pdf](http://www.cseg.ca/about/_docs/CSEG-Foundation-Funding-Guidelines.pdf)

[http://www.cseg.ca/about/\\_docs/CSEG-Foundation-Funding-Application.pdf](http://www.cseg.ca/about/_docs/CSEG-Foundation-Funding-Application.pdf)

<http://www.geoconvention.com/>

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## **Perspectives on the 2011 Seismic in Motion Program**

*Mark Lane, Chair, CSEG Foundation Outreach Committee*

For the past several years October has been a special time for me. Along with the turning of the autumn leaves and the promise of winter comes the CAGC's Seismic in Motion program. Set in the tree bounded fields of Waiparous, SIM is an outdoor classroom that shows, in a single day, the basics of seismic acquisition. On each of three days about 150 participants are driven from Calgary to Waiparous, divided into groups, guided through demonstration stations, fed lunch, and treated to a simulated helicopter rescue and live explosives demonstration.

There is a tremendous amount of background work needed to make the event an ongoing success, and lots of volunteer opportunities for university students. About 500 participant tote bags need to be pre-loaded with literature and, for the students, promotional items from industry sponsors. And, of course, someone gets to write an article for the USO newsletter and the CSEG recorder. At the event itself, 30-50 guides are required, over all three days, to oversee the orderly movement of groups of participants between stations. New guides are typically paired with experienced volunteers, and each station provides its own presentation, so guides can relax and learn along with their groups. Demonstrations include static and operating equipment such as drills, recorders, explosives, mulchers, vibrators, and helicopters, and procedures such as high angle rescue and aerial gear movement. Organizations such as the CSEG, APEGGA and Enform provide career and training information.

Prior to 2011, my involvement had always been as a guide, shepherding a single group of about 25 through the day's activities, but this year I acquired a different perspective: that of station attendant. My job, as the CSEG representative, was to provide an overview of the entire program to each group, helping participants sort out the relationship between the components of a seismic program. By the end of the day I had met all the participants and guides, and discovered that they represented a broad cross-section of government, industry and academia. They included provincial government representatives, office assistants, practicing geoscientists, and students from high schools, technical institutes and universities. Many, if not all, of the students were able to attend due to the generosity of industry sponsors coordinated through the CSEG Foundation Outreach Committee. Despite my exhaustion after three days in the field and 16 presentations to as many groups, I look forward to next year's event and all the new and familiar faces I will see. I highly recommend the program to anyone interested in the oil and gas business, or considering a career in the field.

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## **CSEG Foundation Scholarships**

January marks the beginning of our efforts to market the CSEG Foundation Scholarships in all universities across Canada. One new thing to note is that we have extended the scholarship program to technical institutions such as SAIT, NAIT and BCIT and will be offering 4 new \$1000 scholarships to technical institutions. Last year we awarded 16 scholarships \$2000 each, which makes a total of \$36,000, distributed to deserving students who applied for the scholarship. New application is on line and can be downloaded. Deadline for scholarships is June 15, 2012. You must be a CSEG student member to apply. Everyone should apply for the scholarship! Link to the scholarship application and CSEG student application is below.

<http://www.cseg.ca/students/docs/CSEG-Scholarship-Application.pdf>

<http://www.cseg.ca/membership/docs/2012-CSEG-Membership-Form.pdf>

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**GEDCO is excited to have been given the opportunity to sponsor the CSEG Student Memberships for 2012. This sponsorship falls in line with other student initiatives that GEDCO is involved in. Currently, eight leading Geophysical University programs across Canada, and over fifty worldwide, are taking advantage of GEDCO's Software Sponsorship Program. GEDCO looks forward to continuing to support the next generation of Geoscientists in Canada. Students- don't forget that you need to reapply as the memberships expire on January 1, 2011. The student membership forms can be found:**

<http://www.cseg.ca/membership/membership-info.cfm>



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*If you would like to contribute to the CSEG newsletter please email submissions to [karen.m.chong@gmail.com](mailto:karen.m.chong@gmail.com) and [jchling@gmail.com](mailto:jchling@gmail.com)*

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