



Professional Engineers
and Geoscientists of BC
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March 2009

The 4th Dimension

Association of Professional Engineers and Geoscientists of
BC
Victoria Branch Newsletter
www.apeg.bc.ca/vic

Next Event – Dinner Meeting Thursday March 19, 2009 at the University of Victoria

The next meeting will be on **Thursday March 19, 2009**. This will be a dinner meeting. Location will be in the Arbutus Room, Cadboro Commons at UVic. Parking information and campus map can be found at <http://www.uvic.ca/students/undergraduate/explore/maps/>. This dinner meeting will celebrate the Talbot award winners for this year –see more about the Talbot Award in this newsletter. The President of APEGBC, Dr. Margaret Li, P.Eng., will be in attendance and would be pleased to answer questions from Members.

The guest speaker at the dinner meeting will be from the UVic EcoCAR team. Please find details of the EcoCAR on the following page.

- Timings:
 - 5:30 – 6:30 Social
 - 6:30 – 7:30 Dinner
 - 7:45 – 9:00 Guest Speaker

- Costs will be:
 - \$25 = All members and non-members
 - \$10 = Students
 - \$ 5 = Attendee for speaker only (meal not included, registration guarantees seating)

- Sign up on the web site at <http://www.me.uvic.ca/APEG.htm> or call 250-721-8896

If you have recently received your P.Eng., P.Geo, EIT or GIT and wish to receive your APEGBC certificate and complimentary dinner at this or upcoming events, please contact Eric Pettit, Branch Chair at eric.pettit@aecom.com or call 250 475-6355

Next Executive Meeting Wednesday March 25th 2009

When 5:30pm
Where AECOM – Suite 200, 415 Gorge Road East, Victoria

Development of Next Generation Hybrid Electric Vehicles – UVic EcoCAR

Today, increasing environmental and energy concerns call for the replacement of pure internal combustion engine (ICE) vehicles with more efficient vehicles that release fewer emissions.



On May 22, 2008, the U.S. Department of Energy, General Motors and Natural Resources Canada announced the 17 winning teams from 70 competing proposals across North America to participate in *EcoCAR: The NeXt Challenge*, a collegiate vehicle engineering competition set to begin in the Fall of 2008. Each team in the three year *EcoCAR* project will re-engineer a 2009 Saturn VUE to achieve improved fuel

economy and reduced green house gas emissions, while retaining the vehicle's performance and consumer appeal.

The University of Victoria team is the first and only one from Western US and Canada. The team plans to build on existing UVic research by incorporating advanced multi-regime hybrid powertrain architecture, leading battery, and clean E85 engine technologies in a Plug-in Hybrid Electric Vehicle (PHEV) design.

A growing number of government agencies, together with key automotive, instrumentation, computer, and software technology companies have formally committed to provide generous financial, equipment and technical support, including: Natural Resources Canada, Transport Canada, the US Department of Energy, Argonne National Laboratory, the BC Ministry of Energy, Mine and Petroleum Resources, General Motors, MathWorks, Dell Computers, BC Hydro, Advanced Lithium Power, VanGear and Canadian Electric Vehicles.

Participation in the elite *EcoCAR: The NeXt Challenge* Competition reinforces UVic's internationally leading position in search of pro-environment and climate solutions. The program will allow our students to gain first-hand experience in cutting-edge clean automotive technology, provide great publicity for UVic, and invaluable outreach opportunities to the general public for UVic Engineering and emerging clean automotive technology.

In addition to the excitement and vast career opportunities for our students, a unique feature of this program is its integration with our curriculum. It brings considerable refreshment and enhancement to our undergraduate and graduate programs, as well as enabling research in related areas, such as the development of next generation hybrid vehicles.

In this talk, advances of HEV technology will be reviewed, and UVic EcoCAR research and development activities will be presented.

The Sixth Annual Richard Talbot Award

Commemorating Richard (Dick) Talbot PEng

Richard Talbot believed in the professionalism of Engineering, and was a strong supporter of the Victoria chapters of the EIC and the CSCE. He was also a mentor to many of our present members.

In 1995, the APEGBC planned to present him with the Professional Service Award, in recognition of his lifetime dedication to APEG and other technical and community societies. Sadly, Dick died of cancer

that summer at the relatively young age of 64, just prior to the awards ceremony. The award was presented posthumously to his wife, Christine.

To honour Dick's contribution, the Victoria Branch mandated a yearly award for a University of Victoria Engineering student. We are pleased to announce that due to your support plus portfolio growth, this will be the third year we will present 2 awards. The awards will be announced at the Dinner Meeting on 19th March.



The winners will join the esteemed list of prior recipients (a short list, but growing!)

2008	Craig Bakker	Mechanical Engineering	3 rd year
2008	Irvin Naidu	Electrical Engineering	4 th year (Camosun Bridge)
2007	Jason Heinrich	Mechanical Engineering	3 rd year
2007	Steve Gillan	Electrical Engineering	4 th year (Camosun Bridge)
2006	Jason Wei	Computer Engineering	4 th year
2005	Robert Prinz	Electrical Engineering	4 th year
2004	Magnus Charles McElroy	Electrical Engineering	4 th year
2003	Thomas Owen	Mechanical Engineering	4 th year

The Talbot Award Fund is managed by **Tom McLean PEng CFP**

The 2009 Vancouver Island Regional Science Fair (VIRSF)

The VIRSF will take place on April 4-6, 2009 in the lobby of the Elliott Lecture Wing at the University of Victoria. Approximately 100 students will participate in the 2009 VIRSF. Seven of these students will be selected to go on to the Canada-Wide Science Fair (CWSF). Your past support of the Science fair has been much appreciated. This year the Association of Professional Engineers & Geoscientists of BC will contribute the following prizes: 10 prizes of \$50 and 10 prizes of \$25.

Public viewing of the projects is on April 5th from 12:00 to 3:30 pm in the lobby of the Elliott Lecture Wing at the University of Victoria.

Feb 19th Dinner Meeting (Overview for those who could not attend!)

The Victoria branch of APEGBC was pleased to invite Chris Lawless, Chief Economist from BCIMC, to speak at our 19 Feb dinner meeting. Chris walked us through the ongoing global recession and what it means for us in 2009.

Interestingly enough, even though this was about the global economic recession, the topic could easily have been an engineering failure: there was not enough due diligence and oversight, the systems in place were pushed outside the normal operating parameters, and the risk management assumed invalid parameters.

The main point of the presentation was that the problems are caused by a series of factors – and we all know the expression “no one thing gets you”. The major contributing factors were: a large number of bad loans consolidated into now-worthless packages (see image showing the tail end of a decline from \$100 to \$2 per unit), excessive borrowing by a factor of up to 5x the normal limits, and a complacent view of risk in a low-interest environment. While there were several other factors, these were the main points leading to the recession.

At this point, the market is stalled primarily because those who want to invest are afraid to, because so many people have lost so much money in the last year. Nobody wants to deposit money into banks, since there is no guarantee that the bank will remain solvent. Credit is the oxygen of the financial system we use, and it requires trust. Without confidence and trust, the economy simply does not run. As the orange “fear index” shows, investors are more afraid now than they have been in ten years.

As for this recession developing into a global depression, Chris offered some solace:

- The chair of the Federal Reserve is one of the leading experts on the Great Depression; he is determined not to repeat policy mistakes of 1929-33.
- Fed is pulling out all the stops to offset impact of credit crunch – aggressive monetary easing to prevent deflation.
- No gold standard.
- Massive fiscal stimulus in pipeline, including offset of contractual state fiscal actions. May not be enough but policy is quite expansionary, unlike 1929-33.

In short, while the next year looks bleak, the main ideas were that the economy was artificially inflated with the housing market and NINJA (no income, no job or assets) loans. As this bubble bursts, it is causing a brief period of slower economic growth, but a slow recovery – with sustainable growth – will come in the second half of 2009.

A Call for Volunteers

If you are interested in joining the Branch Executive or know of potential candidates please forward these names to the Branch Chair Eric Pettit at 475-6355 or contact any member of the executive (see last page of newsletter).

Trades and Technology Career Fair, Thursday, April 9th, 10am–2pm, Technologies Centre, 1st Floor Atrium, Interurban Campus, Camosun College

Sponsored by VIATeC and presented in partnership with the School of Trades & Technology, this year's Trades & Technology Career Fair will bring together specialist employers who want to connect with Camosun students and share career options in their organizations.

Students will have a chance to hear presentations in areas such as renewable energies and learn more about trends in the trades & technologies workplace. This is their chance to mix and mingle with employers and secure a career future in their chosen field of study.

The fair will run from 10am-2pm with presentations from noon-1pm. Free pizza will be available to students who attend a presentation and also for sale @ \$2/slice. There will also be two chances for students to win a \$250 Camosun Gift Card.

Please encourage your students to attend and to prepare themselves by having a resume on hand and dressing appropriately. There are some very useful tips on the www.bcjobs.ca/career advice/networking site. If any of your students are interested in volunteering they should email employ@camosun.bc.ca with the subject line: volunteer T&T Career Fair 2009. If you know of employers who may be interested in exhibiting, please direct them to www.camosun.ca/se

Participants will be confirmed as they register and further information is available at www.camosun.ca/se

We look forward to you joining us for lunch in the Trades & Technology Lounge between 11:30-1pm. The Trades & Technology Admin Office will have posters available next week for posting in your classroom or office. I have attached a copy for information only. If you have any questions or want to find out more, please feel free to contact the staff in the Co-op and Student Employment department at local 4410.

Spaghetti Bridge Competition – 30th April 2009

At the last meeting of the Branch Executive, it was agreed that the Executive would build a bridge and issue a “challenge” to others in the Engineering industry to submit bridges as well under the “Open” category. The date is Thursday 30 April. In all likelihood we will hold the April dinner meeting at Camosun to coincide with this event. Please note that each team is limited to four members. **So the gauntlet is thrown – who will challenge your excellent executive?**

The Civil Engineering Department at Camosun College will host the the Sixteenth Annual Spaghetti Bridge Competition during **Open House April 30th, 2009**. This site will be updated as details become available.

The competition will be open to all, with separate competitions for the following four divisions:

- Grades 6 – 9
- Grades 10 – 12
- Engineering Technology Students
- Open Competition (all others)

The bridges are to be constructed entirely out of spaghetti and hot melt glue. The bridges will be loaded until they collapse. The bridges will be judged based on the ratio of the maximum load held before collapsing compared to the weight of the bridge. For the complete details see the official rules on http://civil.camosun.bc.ca/spaghetti_bridge/.

OTHER EVENTS

APEGBC, Victoria Branch

Victoria Branch Dinner Meetings are generally held the third Thursday night of every month from September to May excluding December. Everyone is welcome to attend the Branch Executive meetings held every month. **Please plan to come out, have fun, learn something, meet someone and support your profession!**

Vancouver Island Chapter of APEGBC

The VI chapter would like to invite any of the Victoria chapter members to its monthly meetings. The next dinner meeting in Duncan will be a tour will be held at the BC Forestry Museum and followed by a dinner meeting presentation by Mr. Doug Lockhart of Lockhart Industries who is implementing new geothermal technologies, including a marine geothermal system for Brentwood College. It is sure to be an interesting night. March 12th at BC Forest Discovery Centre, 2892 Drinkwater Road, Duncan, BC at 3pm or Arbutus Room, Best Western Cowichan Valley Inn, 6474 Trans Canada Highway, Duncan, BC. 250-748-2722 at 6 pm.

APEGBC

APEGBC puts on a number of seminars and courses throughout the year. Although most of these are on the mainland there are a few on the island. The following is a list of those planned for the island in the next month or two. For a complete list and details please go to the APEGBC website at www.apeg.bc.ca

American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE)

Please check the ASHRAE Vancouver Island Chapter for upcoming Vancouver Island Chapter meetings at www.ashrae.bc.ca/vi.htm.

Canadian Geotechnical Society (CGS)

Meetings are normally held the third Friday of each month from September to May, excluding December. For details, the website: is <http://www.cgs.ca/english/reg-div/vic-loc.html#news>.

Engineering Institute of Canada (EIC), Vancouver Island Branch

For information on the next meeting, please link to: <http://civil.camosun.bc.ca/vib-eic/>. Luncheon Meetings occur on the first Friday of the month (except July and August). For details, call Bruce Barnewall at 356-0726 or e-mail Bruce at bruce.barnewall@gov.bc.ca

Canadian Institute of Transportation Engineers (CITE), Vancouver Island Section.

For more information please see <http://www.citebc.ca>

The Vancouver Island Advanced Technology Centre (VIATEC)

VIATEC is the conduit that connects people, knowledge and resources to grow a successful technology sector on Vancouver Island. To learn more about VIATeC go to www.viatec.ca.

Advertisements

While APEGBC – Victoria Branch is not in a position to endorse advertisements, we do provide them as a service to our members. The advertising rates are \$200 for eight continuous advertisements and \$30 for a single advertisement.

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