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Highlights of Upcoming Events:

- Wine and Cheese Tuesday February 3rd
- Fun Run Sunday February 29th

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DAWEG News

by Jennifer Richards, E.I.T.

Welcome to 2004! I hope everyone enjoyed the Holiday Season and is looking forward to an exiting year. With this being our first newsletter of the New Year, we'd like to welcome any new members to DAWEG. The intent of this newsletter is to ensure that members are aware of DAWEG's role in our community and to also keep members involved by providing information on DAWEG initiatives, past events and upcoming activities.

So, what's been happening?

Well, this past fall was a busy time for DAWEG. A new executive was put together following the Annual General Meeting held on Saturday September 27, 2003. Your new executive is listed on page 8 of this newsletter and can be found on the DAWEG website at <http://www.mech.ubc.ca/~daweg>. Remember, you can always contact the executive with any questions or ideas.

This year's AGM was a tremendous success and boasts the largest ever turnout! Attendees had the pleasure to listen to guest speakers Phyllis McIntyre, P.Eng. and new APEGBC president Bill Gilmartin, P.Eng.. Phyllis gave an interactive presentation on the topic of setting priorities and time management. Bill provided an opening address to the AGM and discussed the relationship of DAWEG with APEGBC .

We have a new website! Thanks to the efforts of Rhonda Hyslop, E.I.T. DAWEG's website has undergone a massive re-organization. Please visit <http://www.mech.ubc.ca/~daweg> and let us know what you think!

DAWEG's Annual Christmas Party was held on November 27th, 2003 at the Shark Club by Brentwood Mall. A fun night of food and cheer was had by all.

So, what's coming up in 2004?

A Wine & Cheese event to mentor young and upcoming Engineers and Geoscientists is scheduled for Tuesday February 3rd, 2004 from 6:30 pm to 8:00 pm at the YMCA building on Hornby Street. This is an opportunity to meet recent grads and to learn about their skills and interests while providing guidance. This should be an exciting networking event! RSVP by January 30th, 2004 to cdayyani@duke-energy.com. Space is limited so register today!

DAWEG's Engineering Feats Fun Run will mark the commencement of National Engineering Week, which will be held from February 29 to March 7 this coming year. The purpose of the event is to raise funds for our year-round programs that promote engineering and geoscience in the community and professional development of the APEGBC members. DAWEG's fun run will be

held on Sunday February 29, 2004. If you're interested in participating or volunteering, please visit www.dawegFunRun.ca

Interested in networking? It has been suggested that networking lunches would help DAWEG members obtain frequent and regular networking opportunities. Some possible locations for regular lunches are downtown, UBC and SFU. If you would like to organize such an event please contact the Social Committee. (The DAWEG Executive is listed on the last page of this newsletter.)

As always, the newsletter committee is always looking for submissions, ideas, comments and suggestions. We can be contacted by email at dawegnews@yahoo.ca. As you'll see from this first newsletter, we have a new structure. Although we will feature articles on our core topics of DAWEG news/events, environment, spotlight on female professionals, work/life balance, networking and woman in engineering, we are always looking for new and interesting stories. Email us any time!

Makes you go Hmm

Canadian Engineering Week is February 28-March 7, 2004 (as stated by CCPE website www.new-sng.com)
US Engineering Week is February 22-28, 2004 (as stated by www.eweek.org)

The Advancement of Women in Engineering

By Manjit Neger, M.S., E.I.T.

As we prepare to celebrate National Engineering Week, it is only appropriate to take some time to reflect on the role women have played in the engineering profession. Historically, the words "engineering" and "women" were not uttered in the same breath. Women engineers, like women doctors and lawyers, were unheard of. In the past, the way in which women were socialized prevented women from entering the engineering field. The gender roles for women were rigidly structured and socially enforced. Historian Ruth Cowan said:

While we socialize our men to aspire to feats of mastery, we socialize our women to aspire to feats of submission...Men are meant to conquer nature; women are meant to commune with it. Boys play with blocks; girls play with dolls... Women who wish to become engineers...have to suppress some deeply ingrained notions about their own sexual identity.

Early women engineers such as American Sybilla Masters who designed a mill in 1715 for cleaning and curing corn, paved the way for other women engineers. She was a pioneer whose hard work and ingenuity was not rightfully her own because she had to patent the mill in her husband's name.

It is because of women engineers like Sybilla Masters who had the courage to pursue her dreams and break free of social stigmas that engineering has evolved into a profession where today, women make up a significant part of the engineering scene. Presently, women proudly represent all fields of engineering. The number of women in engineering is increasing, as are the contributions made by women to the field of engineering. Most recently, Patricia Galloway, an internationally recognized leader in civil engineering and construction, as well as the Chief Executive Officer and president of the Nielsen-Wurster Group, Inc. was inaugurated as the first woman president in the 151-year history of the American Society of Civil Engineers (ASCE) on November 15, 2003 in Nashville, Tennessee.

It is amazing how much time has changed the makeup of engineering. Engineering has evolved from a time where a woman could not patent her own design, to where a woman has been elected by her civil engineering colleagues as the president of ASCE, a national civil engineering society.

The advancement of women in the engineering profession has been slow, yet profound. Take a moment to reflect on the societal contributions made by past and present women engineers. Future women engineers depend on present women engineers. Today's women engineers, let us endeavor to make our mark in history.

Wine and Cheese Reception/Networking.

Want to come out and network with fellow Engineers and Geoscientists and with Engineering and Geoscience Students. (as of January 20, some spaces are still left for the wine and cheese reception)

Who: UBC, SFU, and BCIT engineering & geoscience students, DAWEG/SCWIST members, Lower Mainland engineers & geoscientists

When: Tuesday Feb. 3rd, 2004 at 6:30-8pm

Where: Room 1 & 2 on 4th Floor, YWCA Building,
535 Hornby Street, Vancouver
(one block East and one block North of Burrard Skytrain Station,
or underground parking for about \$6.00-\$8.00)

Registration: Contact Caroline Dayyani: cdayyani@duke-energy.com

Space is limited to: 80-100 people for the reception (register by Jan. 30th, 2004)

50% of seats are reserved for females.

Please check the details at: http://www.mech.ubc.ca/~daweg/events/Salary_Seminar_Ad_2004.doc

The Next Generation of Engineering Women

By Manjit Neger, M.S., E.I.T.

With National Engineering Week only a few weeks away, many engineers are preparing to celebrate the importance of engineering and it's contributions to society. As members and supporters of the Division for the Advancement of Women in Engineering and Geosciences, National Engineering Week can be a great opportunity to expose girls to engineering and engineering careers.

Girls represent more than half of the future workforce, however when it comes to engineering, few get enough guidance and encouragement to consider an engineering career. North American women represent less than ten percent of all engineers and less than twenty percent of all engineering students¹. Often, young women interested in engineering lack enough math courses to go into engineering upon entering university.

In the British Columbia school system, mathematics and sciences are only mandatory up to and including the eleventh grade. Mathematics and various science classes are treated as elective classes in grades eleven and twelve, and as a result, many girls decide not to enroll in them. Therefore, by educating girls about engineering, and then encouraging and supporting girls to pursue engineering prerequisite classes such as higher-level

mathematics and sciences in high school, girls will be better prepared to choose engineering in university.

Where do we begin? Well, we need to get young girls thinking beyond the "nerd" factor of engineering. Many high school girls who are good at math and science see mathematicians and scientists as "nerds" and "loners". Many also perceive math and science as "male dominated" and "a man's job". The facts are disturbing and require intervention to change negative attitudes regarding core classes in the engineering discipline.

By using educational, informative and fun intervention efforts, many highly capable female students can find out first hand that engineering can be a fun and rewarding career. We can help change misconceptions about the engineering field and engineers in general by taking part in the following activities:

- Get girls to spend time with other girls their age who are also very good in math and science and who face some of the same barriers and feelings of isolation.
- Give girls the opportunity to get to know women, who are working as scientists, engineers and technologists. Emphasize career exposure, not career choice.
- If you are involved in the education system, make math and science classes more interactive and hands-on with small group work and real world problem solving.

¹ Lehr, Donald "Introducing Girls to Engineering" News Release January 14, 2002, posted on "National Engineering Week" (US)
<http://www.eweek.org/2002/News/Eweek/introducing.shtml>.
Original Source: National Science Foundation.

DAWEG member looking for a professional position in Engineering...

My name is Stephanie Thompson and I am about to graduate from UBC with a Master's degree in Metals and Materials Engineering. I have two years experience working for steel and nuclear power industries that sparked a personal interest in sustainability. I am actively involved with Engineers without Borders and have just spent a month working as a project engineer for an industry-government initiative to help promote the reduction of embodied GHG in concrete. I would love to find work in BC, eventually with a sustainability or environmental focus. If you would be interested in meeting myself or seeing my full resume, please do not hesitate to send an email to steph@cmpe.ubc.ca

Engineering knowledge, creativity and environmental awareness – where is the fit?

I hold recent degrees in Chemical Engineering and Computing Technology from the University of Ottawa and I want to get involved in Environmental Engineering in the Vancouver area. My co-op work experiences are in papermaking, wastewater treatment and contaminated site environmental impact assessment. I am looking for opportunities to design, implement and promote environmentally sound solutions, preferably in an industrial setting. Please contact me at emilie_ouellet@hotmail.com if you want to share some suggestions. I look forward to meeting with you in the future through professional endeavors or at an international conference!
Emilie Ouellet

JOKE: An astronaut in space was asked by a reporter, "How do you feel?"
"How would you feel," the astronaut replied, "if you were stuck here, on top of 20,000 parts, each one supplied by the lowest bidder?"

Enviro Corner

Compiled by Jennifer Richards, E.I.T.

Professionals working in the field of applied science tend to be factual people. What better way to spread the word on the environment by being prepared with a few interesting facts? Read on to learn more about the curiosities of our natural and built worlds.

Humans today pump over six million tones of carbon dioxide in the atmosphere every second.
Source: "Global warming more dangerous than terrorism, scientist told", Vancouver Sun, November 20, 2003, page A15.

The habitat of orang-utans in Sumatra and Borneo will shrink by 99% by 2030 at the current pace of human expansion. Their loss to the wild would be permanent because orang-utans in captivity rarely take to the forest when re-introduced.

Environmentalists say expected economic activity in resource-rich tropical areas will reduce undisturbed natural homelands of African apes by 90% by 2030.
Source: "Global meeting seeks to save great apes", Vancouver Sun, November 25, 2003, page A16.

Canadian Energy to Burn

–research by Jodi Di Menna, Canadian Geographic

- ❖ Percent of Canada's energy production originating from fossil fuels: 83
- ❖ Percent of Canada's primary energy use from renewable energy sources in 1998: 17
- ❖ Length of time the energy produced from solar power in Canada in 1998 would light one 40-watt bulb: 170,000 years
- ❖ Global ranking of Canada's per capita electricity consumption in 1995: third
- ❖ Percent of Canada's total energy supply transported by pipelines: 66
- ❖ Fossil-fuel energy saved for each aluminum beverage can recycled: enough to run a television for 3 hours
- ❖ Carbon dioxide emissions spared for every tonne of aluminum diverted from a landfill by recycling: 2 tonnes
- ❖ Tonnes of wood spared per tonne of paper made from recycled material: 3
- ❖ Energy equivalent saved for every tonne of recycled paper: 1,440 litres of oil.

Engineering Fun Run/Walk (10 km Run / 5 km Walk) Sunday February 29, 2004

The Occasion

National Engineering Week is at the end of February. Join us in celebrating engineering accomplishments and help support women in engineering by participating in this year's Engineering Feats Run/Walk. This event is open to people of all ages and the emphasis will be on participation and fun. So go as fast or slow as you like. This will not be a timed event, but a clock will be provided for those who wish to note their time.

The Course

The 10 km course starts at Lumberman's Arch in Stanley Park, goes North-West along the Seawall to second beach, makes a loop around the second beach pool back onto the seawall and all the way back to Lumberman's arch in the opposite direction.

Corporate Sponsorship

For a minimum of \$200, companies that sponsor DAWEG through this event can have their name printed on the souvenir T-shirt. Cheques must be received by January 31, 2004.

Volunteers

Lots of Volunteers will be needed on Feb 29, to do various duties during the run:

- Race-day setup
- Traffic control (directing runners during the race)
- Water stations
- After-race cleanup

Volunteers will receive a free T-shirt. If you are interested in volunteering, please contact us at dawegfunrun2004@hotmail.com.

Refreshments and Draw Prizes

Refreshments and draw prizes, courtesy of our sponsors, will be available at Lumberman's Arch after the Run/Walk. Water will be available at stations along the run route.

Parking, Showers and Washrooms

Parking is available at the Zoo/Aquarium parking lots and at Brockton Oval. Showers and change rooms are available at Brockton Oval, and washrooms are available at Lumberman's Arch.

For More Information:

Visit www.dawegFunRun.ca

Or email us at dawegfunrun2004@hotmail.com

Want to Participate or Volunteer? Registration Form is on the Next Page

Engineering in the News

The Sun's Career Extra section in Saturday January 17th, 2004 newspaper titled "Hot Jobs for 2004" had a story titled "Future for engineers looking brighter" by Gillian Shaw. This article says that with the "economic downturn waning co-op jobs [are] easier to find." This article also contained interesting biographical information on Alison Corral, a female engineering physics co-op student at UBC who has had some interesting co-op jobs.

At the conclusion of this article it references a joint HRDC/BC advanced education study which named engineering as a "high demand area both now and in the longer term".

National Day of Commemoration and Action on Violence – December 6, 2003.

December 6 was the 14th anniversary of the Montreal Massacre. On this day in 1989, 14 young women were killed when a man with a gun entered an engineering school in Montreal and opened fire.

Vancouver paid tribute to these women by hosting workshops and panel discussions on how to put an end to violence against women. Candlelight tributes were held nation-wide to honour and remember the women who died.

Engineering Fun Run/Walk

February 29, 2004
10 km Run / 5 km Walk



Run/Walk will start and finish at the Lumberman's Arch in Stanley Park. This will not be a competitive event, but a clock will be provided at the finish line for those who wish to note their time. Refreshments and draw prizes will also be available at the finish. The run/walk is open to public participation and all age groups are welcome. All participants will receive a T-Shirt. Volunteers are needed and will receive a free T-Shirt

Entry Fee
 \$30 before January 31st
 \$35 after January 31st

Proceeds to



Package Pickup
 February 28, 2004 (10:00am – 6:00pm)
 At Running Room 103-769 Denman St.
 February 29, 2004 (8:00am – 8:45am)
 At Lumberman's Arch, Stanley Park

Register in person at any Lower Mainland Running Room location:

- 103-679 Denman Street, Vancouver
- 001 City Square, 555 West 12th Ave, Vancouver
- 235, 2083 Alma Street, Vancouver
- 738, 2601 Westview Drive, North Vancouver
- Westwood Ctr., 202-2748 Lougheed Hwy, Port Coquitlam
- 410. 7380 King George Highwav. Surrey

Register on-line at www.dawegFunRun.ca

For More Information visit www.dawegFunRun.ca

Sponsored in part by



Entry Form		<input checked="" type="checkbox"/>	Engineering Fun Run	
I would like to participate in	<input type="checkbox"/> 10 km run		<input type="checkbox"/> 5 km walk	
I would like to volunteer (no fee) event	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Volunteers will receive a free T-Shirt and are needed before, during and/or after the event	
T-Shirt Size	<input type="checkbox"/> M	<input type="checkbox"/> L	<input type="checkbox"/> XL	
Amount Enclosed	<input type="checkbox"/> \$30 (before Jan 31*)	<input type="checkbox"/> \$35 (after Jan 31*)	Make cheques payable to "DAWEG"	
Last Name _____	First Name _____	Phone _____		
Address _____		City _____	Province _____	Postal Code _____
Team Name and Affiliation (if entering as part of a team)				
WAIVER: In consideration of the organizers accepting this entry, thereby, for myself, my heirs, executors and administrators, waive and release any and all right and claim for damages of any sort I may have against the organizers and sponsors, their agents, representatives, successors and assigns, for all of the injuries suffered by me at this run, or damages sustained by me as a result of this run, for any cause whatsoever, including negligence. It is expressly understood by the undersigned that this run is entered into at the sole risk of the undersigned and that the organizers and sponsors of the run are exempt from liability for any and all damages sustained and any and all injuries and loss, including personal and property loss arising from any cause whatsoever, including negligence.				
Participant's Signature / Parent or Guardian (if under age 19) _____			Date _____	

Are you interested in starting a Green Team?



(photo courtesy of Sierra Club of Canada website)

By Jennifer Richards, E.I.T.

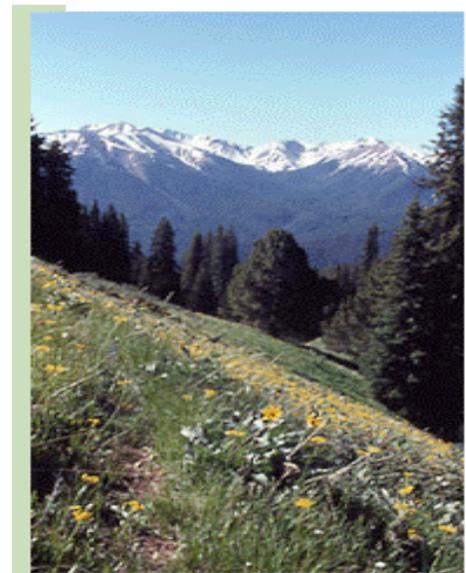
Has anyone else noticed lately that a lot of individuals seem to have a healthy mind and heart about how we interact with the natural world? I've certainly picked up on this quiet, but ever-present, undercurrent. So, what is the **Green Team** you ask?

The **Green Team** is an initiative by Jennifer Richards that intends on creating a common outlet for communicating individual's ideals on how to tread more lightly on the Earth.

So, what is the **Green Team** trying to accomplish? Well, some of the preliminary ideas of what the Green Team is about include:

- Members commit to making small steps towards their personal goals of habit changes (i.e. cycling once a week, reducing energy consumption or waste etc.)
- Innovation showcases of enviro-friendly products
- Guest speakers
- Knowledge sharing between individuals and the various Green Teams around the province
- Keep the Commuter Challenge alive year-round!

My vision is that the **Green Team** is made up of individuals who have interests in making a difference that range from small to big. Also, the views of the **Green Team** should not be taken to reflect the views of DAWEG – rather, the collective views of those who are committed to helping the environment.



(photo courtesy of Sierra Club of Canada website)

If you're interested in starting a **Green Team** either in your workplace or among your peers, please contact Jennifer Richards at jrichards@urban-systems.com. Looking forward to hearing from you!

Enviro-Friendly Reads By Jennifer Richards, E.I.T.

Interested in reading informative and mind-opening non-fiction? Dive into the following enviro-friendly read by a Canadian author!

Unnatural Law- Rethinking Canadian Environmental Law and Policy, by David R. Boyd.

This B.C. Author is an environmental lawyer, professor, and former Executive Director of the Sierra Legal Defense Fund. His work delves into the

fatal weaknesses of Canadian environmental legislation and explores the differences and similarities between the U.S. and Canada on this topic. Divided into three parts; Examination, Diagnosis, and Prescription, readers are left with an understanding of the steps and measures that are needed to ensure Canadians can live within an environmental legacy and not a disaster.

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