



Edited by
Maggie Wojtarowicz, E.I.T.
Kara Hurtig, E.I.T.

The EDGE Newsletter

Equity & Diversity in Geoscience & Engineering

DAWEG on APEGBC Council

by Cathy Marr, P.Eng.

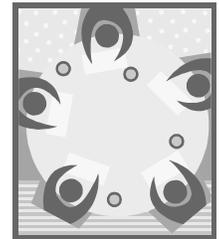
Want to Make a Difference at APEGBC? Get Nominated as a Candidate for Council!

Cathy Marr is representing DAWEG this year on the APEGBC Nominating Committee. The purpose of this committee is to prepare a list of candidates to put forward to APEGBC members for the council election each year. One of the goals of the committee is to ensure that it provides a qualified slate of candidates that covers a wide range of disciplines and reflects the diversity of the membership in APEGBC. The Nominating Committee is looking to DAWEG to put forward women candidates for nomination.

What's involved in serving as a Council member?

- Council members are elected to a two-year term.

- Council meets 9 times a year in Vancouver.
- Each council member is also required to serve on one APEGBC line committee (e.g. Communications, the Geoscience Committee, Professional Practice, or Registration).
- Past experience on an APEGBC committee or task force is helpful, but not required.



All DAWEG members welcome to Executive Meetings

If you are interested in being nominated as a candidate, or know someone who you believe should be approached about putting their name forward, please contact Cathy Marr at cmarr@istar.ca, or (604) 731-7187 (by April 9, if possible, or by April 30, at the latest).

Inside this issue:

APEGBC Council/ Science Fairs	1
Six Thinking Hats/ Toastmasters	2
Sustainability/ Prairie Conference	3
Student Competition/ Employment Corner	4
Women in the Lead/ History of Women in Science	5
Volunteer Opportunity	6
Student ICWES Sponsorship Competition Nomination Form	7

Did you know that:

- The percentage of corporate directorships held by women in Canada is around 7%—essentially unchanged since 1993
- Women Engineers constitute about 7% of APEGBC's membership.

DAWEG Supports Science Fairs

by Cathy Marr, P.Eng.

Did you know that DAWEG supports Regional Science Fairs?

Each year DAWEG sponsors an award at each of the following Regional Science Fairs: *Fraser Valley*, *Greater Vancouver* and *Vancouver Island*. If you want to come out and see what some kids are up to these days, come out to the *Greater Vancouver*

Science Fair on Saturday April 6 at the SUB Building at UBC. Public Viewing of the students' projects is Saturday morning.

You'll be amazed at the talent and the enthusiasm exhibited by these budding scientists and engineers.

For more information on BC Science Fairs, visit www.sciencefairs.bc.ca.

DAWEG Session at Next ABEGBC Conference

by Maggie Wojtarowicz, E.I.T.

One of the sessions in the DAWEG Stream at the next ABEGBC Conference is entitled "Six Thinking Hats", after the book by Edward de Bono. The premise of this book is that "your success in business depends on how well you think".

The backcover of the book provides this brief introduction:

"Six Thinking Hats can help you think better—with its practical and uniquely positive approach to making decisions and exploring new ideas.

"The main difficulty of thinking is confusion," writes Edward de Bono, long recognized as the

foremost international authority on conceptual thinking and on the teaching of thinking as a skill. "We try to do too much at once. Emotions, information, logic, hope, and creativity all crowd in on us. It is like juggling with too many balls." The solution? De Bono unscrambles the thinking process with his "six thinking hats":

white hat—neutral and objective, concerned with facts and figures

red hat—the emotional view

black hat—careful and cautious, the "devil's advocate"

yellow hat—sunny and positive

green hat—associated with fertile growth, creativity, and new ideas

blue hat—cool, the colour of the sky, above everything else—the organizing hat"

Book Reviews on www.amazon.com

DAWEG @ Toastmasters

by Margaret Li, P.Eng.

Leadership Training? Try Toastmasters!

- Would you like to do well in your career?
- Do you want to feel comfortable in doing presentations in business meetings, as well as in large crowds?
- Would you like to effectively conduct a meeting?
- Do you want to be in a leadership position in a committee?

If your answers are yes to most of the above questions, my suggestion for you is to look into joining Toastmasters. There are over 150 Toastmasters clubs in BC. You may be able to find a club near you by going to www.toastmasters.bc.ca.

Through various Toastmasters club meetings and activities, Toastmasters helps men and women learn the arts of speaking, listening

and thinking—vital skills that promote self actualisations and enhance leadership potential. Just like people cannot learn swimming by watching from the poolside, in Toastmasters, we learn by doing, and by having fun doing it. Club meetings provide a very supportive environment for members to practice, learn and experience new frontiers.

Most clubs meet once a week for 2 hours. Members take turns being chairperson, telling jokes, introducing speakers, etc. In addition to delivering speeches, and conducting meetings, I found the two most useful skills for me are evaluation and impromptu speaking. Evaluation skills allow me to practice the art of providing criticism and suggestions in a tactful way. Impromptu speaking enhances my ability to think on my feet.

My suggestion is for you to go as a guest to a Toastmasters club near you. I have joined various Toastmasters clubs since 1986 depending on my work locations. I find that the learning opportunities are on going, even after so many years. I encourage you to explore this leadership skill training opportunity.



Six Thinking Hats

A man in a hot air balloon realized he was lost. He reduced altitude and spotted a woman below. He descended a bit more and shouted:

"Excuse me, can you help me? I promised a friend I would meet him an hour ago, but I don't know where I am."

The woman below replied: "You're in a hot air balloon hovering approximately 30 feet above the ground. You're between 40 and 41° North latitude and between 59 and 60° West longitude."

"You must be an engineer," said the balloonist.

"I am," replied the woman, "How did you know?"

"Well," answered the balloonist, "everything you told me is, technically correct, but I've no idea what to make of your information, and the fact is I'm still lost. Frankly, you've not been much help at all. If anything, you've delayed my trip."

The woman below responded: "You must be in Management."

"I am," replied the balloonist, "but how did you know?"

"Well," said the woman, "you don't know where you are or where you're going. You have risen to where you are due to a large quantity of hot air. You made a promise, which you've no idea how to keep, and you expect people beneath you to solve your problems. The fact is you are in exactly the same position you were in before we met, but now, somehow, it's my fault."

DAPEG & Sustainability

by Maggie Wojtarowicz, E.I.T.

The APEGBC Sustainability Committee continues to implement the Sustainability Management System (SMS) for the Association and its members.

The latest development of the Sustainability Committee was the launch of the www.sustainability.ca web site at the GLOBE 2002 Business and Environment Conference, held in Vancouver on March 13-15 of this year. The site complements the information contained within the Association's web site at www.apeg.bc.ca/library/sustaininguidelines.html.

The Sustainability Primer for Engineers and Geoscientists is now also available at the www.sustainability.ca web site. It is divided into 3 parts: Introduction—which provides the context and description of sustainability as it pertains to the Profession; Applying the Guidelines—which provides suggestions for implementing the guidelines in daily activities of the practicing Professional; and Practice Specific Modules—which assist with application and implementation of these concepts and guidelines in specific situations. The currently featured Practice Specific Module is for Municipal Engineering, with additional modules to come in the following months.



Sustainability—there is so much that YOU CAN do!!

Prairie Conference on Women in Science and Engineering

adopted by Daniela Constantinescu, E.I.T.

from an article by Colette Bielech., P. Eng., IEEE SAS Chair and IEEE SAS Women in Engineering Coordinator, in the IEEE Women in Engineering Newsletter, November 2001

The Prairie Conference on Women in Science and Engineering was held on October 26 and 27, 2001. This was a unique event; the culmination of the 5-year term of the NSERC/Petro-Canada Chair for Women in Science and Engineering (Prairie Region), held by Dr. Elizabeth Cannon. Additional information on the mandate of the Chair can be found at <http://vector.geomatics.ucalgary.ca/cwse/>. The Chairs for the various Canadian regions provide the focal point for research and development of programs in the area of encouraging young women in and retaining existing women in careers in science and engineering in Canada.

The conference had over 180 participants and three streams: Personal and Professional Development, Career and Educational Development, and K-12 Programs and Research. The participants came from industry and education, both teachers and students from throughout and around the region. The Prairie Region covers the

provinces of Alberta, Saskatchewan, and Manitoba.

The conference revealed that society needs to be made aware that women are competent in science and engineering. There is still a need for activism and effective approaches for encouraging women in non-directional fields need to be directed at the educational system. Various volunteer organizations carry on this work with significant support from some educational institutions.

Statistics still indicate that women's participation in the fields typical to the IEEE (electrical engineering, engineering physics, and computer science) is still low compared to other fields. In Canada, the participation of women in IEEE is about 12%, higher than the world average for IEEE, but still not an encouraging number. Nevertheless, we are fortunate to have a woman, Celia Desmond, as President of IEEE Canada and as a member of the Board of Directors of IEEE.

In the conference, one of the recurring themes of what holds women back was not their ability to take responsibility for their mistakes, but their inability to take responsibility for recognition and awards.

If you remember just one thing about the Prairie Conference on Women in Science and Engineering, remember to:

**ENTHUSIASTICALLY
ACCEPT
CONGRATULATIONS
AND RECOGNITION
FOR YOUR
ACHIEVEMENTS!**

International Conference of Women Engineers and Scientists (ICWES) Student Sponsorship Competition

From July 27 to 31, 2002, Canada will host the 12th International Conference of Women Engineers and Scientists (ICWES) in Ottawa, Ontario. ICWES is held every three years at different locations around the world to promote women in science, engineering and technology. This year, the conference theme will be "Women in a Knowledge-Based Society". Attendees will include scientists, engineers, advocates, and students from around the world.

DAWEG is pleased to announce sponsorship for one, female student to attend ICWES. DAWEG will support one student for full conference registration, airfare to and from Ottawa, accommodations (6 nights - double occupancy), and transportation (to and from airport).

To be eligible, students must be registered full-time in an engineering or geoscience program at an accredited university or approved university transfer program in BC. In addition, students must provide the following:

- Completed Nomination Form
- 250 word statement on why you should be selected to attend ICWES
- Resume including education, work experience, volunteer activities, and hobbies
- Transcript of marks. Students must have good academic standing.

Other supporting material may include:

DAWEG Employment Corner

Job Postings

APEGBC Employment Centre www.apeg.bc.ca

E-mail employment opportunities for DAWEG members to dawegnews@yahoo.com.

Available for Employment

Geoscientist, Ph.D., P.Geo., looking for full-time or consulting work in the Geoscience and/or Editing fields.

Prime skills:

- geological report writing
- review and editing
- research
- petrography
- college teaching

Can proofread any document in Canadian or American English (experience with geological reports, maps, posters, brochures, CD's, web sites, fiction, poetry, kids' books, memoirs, etc.).

Contact Jennifer Getsinger, Ph.D., P.Geo.

Phone: (604) 734-9365
Email: jengets74@post.harvard.edu.

- Reference letters (maximum 3)
- Newspaper articles or clippings
- Certificates of award or distinction

Nomination packages must not exceed 10 pages.

Preference will be given to students who have played an active role in promoting or advocating science and engineering to young girls.

On return from the conference, the winner must write a 1000 word essay summarizing her experiences at the conference, and how these experiences have impacted her vision of women's roles and contributions in the areas of science, engineering, and technology. The essay will be published in the DAWEG newsletter.

Submit nominations by April 30, 2002 to:

Ms. Margaret Li, P.Eng., MBA, DAWEG Chair,
Fax: 604-451-1271
Email: Margaret.li@telus.com

Submissions will be reviewed by three members of the DAWEG Executive Committee. Winner will be notified by May 15, 2002.

See p. 7 of this issue for Nomination Form.

...people will forget
what you said, people
will forget what you
did, but people will
never forget how you
made them feel...



Available for Employment

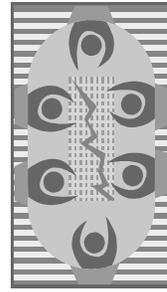
Jennifer Getsinger
Geoscientist/Technical
Writer

"Women in the Lead" Directory

adapted by Maggie Wojtarowicz, E.I.T.

from *The University of Western Ontario's Ivey Women in Management Newsletter*, February/March 2002

"Women in the Lead" is a national directory listing the professional expertise, responsibilities, contributions and recognition of more than 300 Canadian career-women from a large variety of sectors. They are qualified and willing to assume the responsibilities inherent in board appointments.



Find qualified women candidates for board appointments at www.womeninthelead.ca

Their professional expertise and experience recommend them as candidates for corporate board appointments.

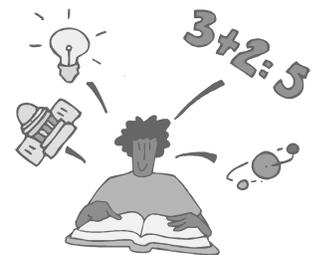
The database has been developed in response to requests for appropriate women's resumes as candidates for board appointments, and in an attempt to bring women to the attention of those who have the power and authority to consider people for boards. The database continues to grow with the expanded awareness of its existence.

DAVEG Web Site Review: History of Women in Science

by Kara Hurtig, E.I.T.

I was recently referred to a website, which may be of great interest to those of you who have chosen a science-based career. The web site is www.feminist.org/gateway/science.html and was constructed by an American group called the Feminist Majority Foundation. The site includes nu-

merous quantities of information and links to web sites about the issues of women in the world. What interested me most about the site was a link entitled: 4000 Years of Women in Science. The site contains the biographies of several female scientists throughout history. I found it inspiring to read about their accomplishments. Two of these bi-



4000 Years of Women in Science

GLEASON, KATE
engineer (1865 - 1933)

Gleason did not have any thorough training in engineering although she did attend Cornell University, as a 'special student' in 1884 to study mechanical arts. She also attended the Sibley College of Engraving and the Mechanics Institute (which is now the Rochester Institute of Technology) part time while she was at Cornell. She began her career at her

father's machine-tool factory when she propelled it into the leading U.S. producer of gear-cutting machinery prior to World War I.

During World War I, the president of the First National Bank of Rochester resigned to join the military. So from 1917 to 1919 she served as its president, becoming the first woman to be the president of a national bank. During that time she began to promote the large-scale development of low-cost housing

and set to work on projects related to this.

In 1918 she became the first woman elected to the American Society of Mechanical Engineers. It was through her reputation in the housing construction field and the machine-tool business that this came about. She also served as the society's representative to the World Power Conference in Germany in 1930.

GERMAIN, SOPHIA
Mathematician
(1776 - 1831)

She was so in love with learning that her parents worried about her health. She wanted to read rather than sleep. Her parents would remove all her clothes and douse the fire in her bedroom to force her to sleep. She would sneak out of the bedroom late at night to

spend the hours wrapped in a blanket reading by firelight. She became an outstanding mathematician.

She developed the modern theory of elasticity. Elasticity is the mathematical representation of stress and strain in materials such as steel beams. Modern construction is impossible without her original works on the subject. Her compatriots dubbed her *the Hypatia of the 18th cen-*

ture.

One of her textbooks contained a sentence describing the stability of orbits, and how perturbations affected them. A man named Adams read her book, believed the math, and went looking for the planet disturbing the orbit of the planet Uranus. He found Neptune.

...you can tell a lot about a person by the way he/she handles these three things: a rainy day, lost luggage, and tangled Christmas tree lights...

...you shouldn't go through life with a catcher's mitt on both hands. You need to be able to throw something back...

DIVISION FOR THE
ADVANCEMENT OF WOMEN IN
ENGINEERING AND GEOSCIENCE

DAWEG
c/o APEGBC
200-4010 Regent Street
Burnaby, BC V5C 6N2

Voice Mail: 604-878-7755

E-mail for Article Submissions:
dawegnews@yahoo.com

Major-Domo E-mail Lists:

daweg-general@interchange.ubc.ca
daweg-resource@interchange.ubc.ca
daweg-discuss@interchange.ubc.ca
See November 2001 Issue of the EDGE, or e-mail
dawegnews@yahoo.com for subscription details.

We're on the Web!!
www.mech.ubc.ca/~daweg

DAWEG Strategic Plan

Vision Statement: To make Engineering and Geoscience Appealing, Rewarding, and Equitable.

Mission: To advise our profession on issues which impact on women in Engineering and Geoscience.

Core Values: Professionalism & Equity & Inclusiveness

See DAWEG Web Site for more information.

January 2002 Salary Seminar—Big thanks must go to Daniela Constantinescu, who made it all happen. Thanks Daniela!!! I've been doing this seminar for 6 years now and I have to say that this is the most successful one yet. The inclusion of the wine and cheese was perfect and the turnout was excellent. This was a very worthwhile event for the students who came (and just kept coming - despite the snow!) and the industry folks who participated. The best news is, next year we definitely need a much bigger room! The slides from the seminar are posted on the DAWEG site under "past events" <http://www.mech.ubc.ca/~daweg/pastevents.html>. Kudos to Karen Savage who got the whole salary seminar event started before I even knew what DAWEG was! Another great DAWEG idea.

Dr. Elizabeth Croft, P.Eng.

DAWEG Volunteer Opportunity School Career Day

A Career Day for Grade 8 students is being held at Minnekhada Middle School in Port Coquitlam on Friday, April 5, 2002.

Geoscientists and Engineers being sought to fill out the program, and ensure that the students have the opportunity to find out more about our fields.

Volunteers will participate in 5 sessions, each 30 to 40 minutes in length. This will be a fun opportunity to talk to students about your work, how you got into it, and what you enjoy about the job.

You may be the one who inspires a young person to choose to be an engineer or geoscientist!

Carpooling from Vancouver will be available.

For more information and to participate, contact Cathy Marr
cmarr@istar.ca or (604) 731-7187.



Get inspired by talking
with school kids about
your career!!

See p. 4 of this issue for more details on the ICWES conference and competition requirements

Submit nominations by April 30, 2002 to:
Ms. Margaret Li, P.Eng., MBA, DAWEG Chair,
Fax: 604-451-1271
Email: Margaret.li@telus.com

Winner will be notified by May 15, 2002.

International Conference of Women Engineers and Scientists (ICWES)

 Student Sponsorship Competition

Nomination Form

Name _____

Address _____

Telephone _____ Fax _____

Email _____

University/College _____ Course _____

Year of Program _____ Expected Date of Graduation _____

Honours, Awards, Distinctions (include title and year of award)

Signature _____ Date _____