



New computing facility opening at Queen's

by Susanne Frame

Ontario researchers will soon be able to muscle in on the worldwide race to solve complex problems with heavy duty computer power.

Queen's University is to become the main site for Ontario's leading centre for high performance computing, which will equip researchers with advanced facilities for modelling, processing and analyzing information.

The new High Performance Computing Virtual Laboratory (HPCVL) is a four-university consortium involving the Royal Military College of Canada, the

University of Ottawa, Carleton University and Queen's University. Some parts of the lab should be operational as soon as September.

The \$25.4 million project is being funded by the Ontario government, the four participating universities and the private sector.

Andrew Pollard, P.Eng., a Queen's mechanical engineering professor and coordinator of the consortium, says the new centre is long overdue: "Canada's capability in this area is declining, yet high performance computing is a key component our researchers need to conduct internationally competitive research."

"HPCVL will provide a level of computing capacity that is about 10 years in advance of today's desktop," he says. "The virtual laboratory will enable geographically dispersed researchers in fields as diverse as engineering, medicine, science and the arts to tackle problems far beyond what otherwise might be possible."

HPCVL is expected to be a centre of pioneering research in fluid dynamics, bioinformatics (an interdisciplinary field using computer technology to understand biological systems), drug design, polymer physics, applied parallel computing, economics and psychology. Engineering faculties will use the lab for such areas as computational fluid dynamics.

The lab will employ up to 12 people, who will support more than 100 researchers from the four universities and selected researchers from across Ontario. Graduate students will have the chance to work in the lab as well.

The economic spin-offs created by HPCVL for Kingston and eastern Ontario are expected to be significant. Bruce Hutchinson, Queen's acting vice-president for research, says technology transfers from the research centre to the private sector will help grow local companies and create jobs in such sectors as healthcare, telecommunications, economic analysis, energy and aerospace.

PEO lauded for improving access to engineering



At an awards presentation held May 31 at Queen's Park, Tony Ruprecht, MPP for Davenport (left) and Liberal Party leader Dalton McGuinty recognized PEO for its commitment to improving the integration of foreign-trained engineers into the profession. The Certified General Accountants Association of Ontario also received an award for similar initiatives.

"Our party has made a commitment to work toward ensuring that foreign-trained professionals who come to Canada don't end up as taxi drivers, pizza delivery persons or restaurant cleaners with a PhD," Ruprecht told over 100 association and community group representatives attending the event. "We have set up a committee to meet with all licensing bodies, to lower the barriers, but not the standards, so that those [foreign-trained professionals] with the education and know-how can practise in Canada. The award is being given to these two professional bodies because of their determination to lower the barriers ahead of schedule. They have gone beyond the call of duty and have become beacons for others to follow."

CCPE appoints new chief operating officer

by Susanne Frame



Marie Lemay, ing.

Canada's 157,000 professional engineers will soon see a new face directing operations at the Canadian Council of Professional Engineers (CCPE).

Marie Lemay, ing., joined CCPE as chief operating officer on July 24.

The University of Ottawa graduate has worked in the field of municipal engineering over the past 17 years. She is currently vice president of the Association of Municipal Engineers of Quebec (AMEQ) and was formerly director general and secretary-treasurer of the Municipality of Chelsea in Quebec. She has also held positions as Chelsea's director of technical services, and as division chief of project management with the City of Gatineau, Quebec's engineering department.

"She brings a wealth of leadership, project management, human resources, administrative and financial skills to the council, as well as a keen understanding of the political process and direct knowledge of engineering and engineers," says Noel Cleland, P.Eng., chair of the CCPE board. "We are confident that under her capable guidance, CCPE will flourish."

In addition to implementing and administering CCPE policies and programs, she will be responsible for directing its staff, and maintaining close relationships with its member associations, including PEO. She will also act as spokesperson for CCPE, lead its federal government relations program, and support CCPE's efforts to promote engineering.

"I am very pleased to be joining CCPE and look forward to the challenges that lie ahead," says Lemay. "My first goal is to familiarize myself with CCPE and to establish strong relationships with my counterparts at the provincial and territorial level, as well as with my staff." Lemay says her other priorities will include maintaining Canada's rigorous engineering qualifications and standards of practice in the rush toward economic globalization.

She succeeds Dan Levert, P.Eng., as CCPE's senior staff officer.

Bridging the Trans Canada Trail



In June, 50 soldiers from 2 Field Engineer Regiment endured heat, rain and mosquitoes to build a 42-metre Bailey bridge connecting a portion of the Trans Canada Trail at High Falls on the Muskoka River, north of Bracebridge, Ontario. This is the third bridge the Toronto-based reserve unit has built as part of the Canadian Military Engineers' commitment to developing the recreational trail. Over the next three years, over 100 bridges will be built to link the 16,000-kilometre trail, which will wind its way through every province and territory.

Plan promotes value of P.Eng. licence in high tech

by Susanne Frame

PEO has begun implementing its long-term campaign to raise awareness of the value of professional licensing in high-tech industries, and in particular in the field of software design and development.

At its December meeting, PEO Council approved an integrated communications plan for establishing software engineering as a recognized and necessary engineering discipline in the public interest through promotion of the value of the P.Eng. licence in this field. The plan builds on previously approved positions recognizing software engineering as a distinct engineering discipline, and defining a core body of knowledge for software engineers and the areas in software practice requiring the involvement of professional engineers. Elements of the plan include a media relations program, regular print advertising, exhibiting at relevant trade shows, and the use of reinforcing messages in speeches by PEO representatives to student and public audiences.

"The plan is a multi-year framework of activities, which can be adjusted and refined as necessary, aimed at creating value for the professional engineer licence in high-technology industries," says PEO director of communications Connie Mucklestone.

Roll-out of the first phase of the plan included large advertise-

ments run last year in *Engineering Dimensions* and *The Link* to encourage PEO members to bring to the attention of their unlicensed colleagues PEO's ability to license qualified software practitioners. Almost 150 of the over 2400 P.Eng. licences PEO issued during 1999 were to practitioners in the information technology field. This year, similar advertising will be placed in publications for the information technology industry, and licensing activity will be carefully watched to gauge the impact.

Meanwhile, articles covering the development of PEO's software positions and the need for professional accountability in the software field were published in *Engineering Dimensions* and *The Link*. Both publications will continue to cover software engineering issues in 2000. Published articles will be compiled on PEO's website for wider access.

In conjunction with the appearance of PEO's corporate display at the 1999 High Technology Show in Toronto, PEO's then President-elect Peter DeVita, P.Eng., and David Parnas, PhD., P.Eng., director of the software engineering program at McMaster University, presented an information session highlighting licensing criteria for software practitioners and the importance of ensuring proper qualification and accountability for those developing software. So far this year, PEO has exhibited at the Instrument Society of America show, and will again exhibit at the High Technology show. At each of these venues, PEO representatives distribute information on PEO's software policies and answer questions about licensure.

Initial implementation of the media relations component of the plan comprised a targeted news release outlining PEO's criteria for licensing software practitioners, which was picked up by several publications. The association also issued a mass media release to raise consumer awareness that the Internet is a largely unregulated and undesigned medium. "The public needs to recognize that while this new medium is loaded with potential benefits, its ad hoc expansion, compounded by its rapid growth in use, make it a medium of communication where caution is required," Peter DeVita said in the release. "Currently, no one is accountable for the inevitable failures, shut-downs or security leaks that will occur, and it is the public who will suffer. Canadians use the Internet more than anyone, so we're especially vulnerable."

Following distribution of the release, *Toronto Star* feature coverage quoted both DeVita and David Parnas, and cited regulation and licensing of software practitioners as a possible response to cyber crime. To build on this momentum, PEO is now responding to relevant media articles through letters to the editor.

PEO's software communications plan dovetails with a national advertising campaign by the Canadian Council of Professional Engineers, which targets engineering students and high-tech employers. The employer portion of the campaign was launched this spring, with ads appearing in national magazines for the information technology and human resources sectors. The ads are supported by a website—www.peng.ca—featuring interviews with two successful PEO members working in the high-tech industry, who talk about the value they derive from their licence.

AGRA helps butterfly park get off the ground

by Susanne Frame

Thanks to the assistance of a major Ontario engineering firm, Ontario butterflies will soon have a park to call their own.

Bronte's local merchants conceived the idea in 1997 to enhance the community's vitality during the winter season. To be located in the Bronte Heritage Waterfront park, the \$2.4 million butterfly garden—designed by Oakville landscape architect Marius de Bruyn—will become an integral part of the Bronte, Oakville and Halton region, and will be Ontario's largest butterfly garden.

According to the plan, the 3.5-acre, butterfly-shaped garden will be surrounded by a flowing waterway that can be converted into an artificial ice skateway for families in the winter. The park will also feature a regenerating butterfly habitat, with such plants as milkweed to attract butterflies.

"We're interested in creating a whole environment, not just a butterfly park," says Lee Bernard, chair and executive director of the Bronte Butterfly Foundation and chair of the Bronte Village Business Improvement Area.

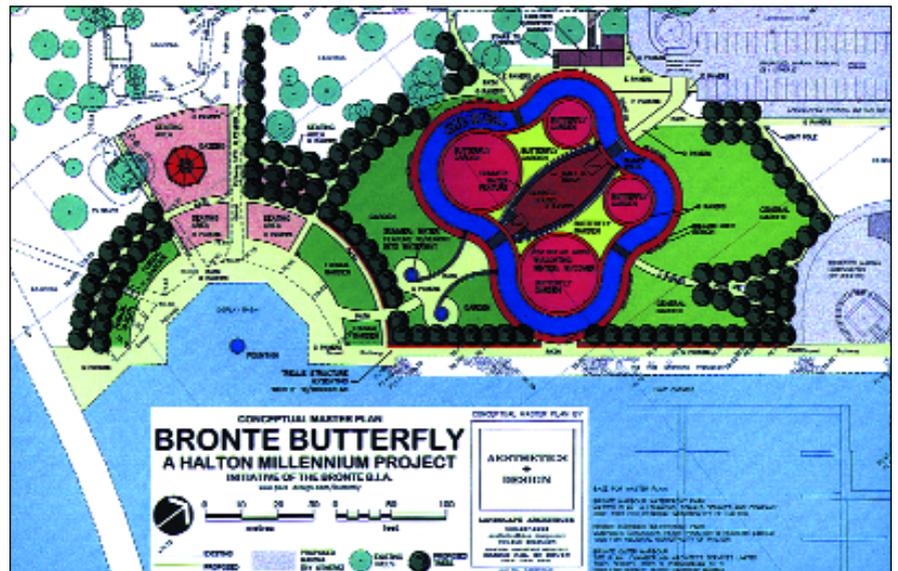
AGRA Engineering has accepted the challenge of getting the park into operation. The Oakville consulting engineering firm has donated engineering and construction management services to the project, including providing the drawings and materials specifications for the construction of the gardens and installation of required services. AGRA engineers will work closely with local contractors, overseeing the park's construction. So far, about 14 engineers are working on the project.

"We are very pleased to be a part of this important local development and tourist attraction," says Alan O'Brien, AGRA's senior vice-president. "As a major Oakville employer and one of the largest engineering companies, AGRA was a natural choice for the provision of engineering services for this waterfront development project."

The community hopes the skating rink will be open by the winter, and the butterfly gardens by spring of next year.

Visit www.brontevillage.net for a comprehensive look at the project, or call (905) 825-2245.

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The conceptual master plan of the Bronte butterfly garden by Oakville's AESTHETICS+DESIGN landscape architects includes plans for a skateway in the winter months. AGRA Engineering is donating engineering and construction management services for the project.

Comments wanted over combining chapters

by Dwight Hamilton

Finding volunteers and attracting members to chapter events in the Kitchener-Waterloo and Guelph-Cambridge areas gets tougher every day. A solution that's being proposed is to amalgamate the two chapters.

A large part of the Kitchener-Waterloo Chapter is surrounded by the Guelph-Cambridge one, which makes for increased travel time and difficulty coordinating events. As well, because many members live in one area and work in the other, they may be confused over which chapter to associate with.

Because a combined chapter would boast more members and make more sense geographically, it's believed that this change might ultimately enhance member partici-

ation and improve the working environment for volunteers.

Anticipated benefits of amalgamation include:

- ◆ enhanced economies of scale, making it more feasible to hire part-time staff support (and potentially provide for a storefront presence), since chapters receive money from PEO based on the number of chapter members. Staff support would prevent work overload for the chapter executive, and increase the services that can be offered to the membership. Currently, the perceived workload prevents new individuals from volunteering for the chapter executive, and the actual workload causes existing chapter executives to stop volunteering their time;

- ◆ more efficient use of resources (i.e. volunteers and money);
- ◆ increased affiliation with the chapter among members from working and living within the same chapter;
- ◆ a larger audience pool for chapter events;
- ◆ reduced travel time to chapter events;
- ◆ centrally located events, which could boost member participation;
- ◆ enhanced effectiveness of the Ontario Society of Professional Engineers.

Because this amalgamation decision is significant, input from members is being sought. Please address your comments in writing to: Michael Chan, P.Eng., chapter manager, fax: (416) 224-8168 or 1 (800) 268-0496; email: mchan@peo.on.ca