

2004 Council election proves tight race for President

BY JOAN BAILEY

The results of PEO's 2004 Council election, which closed February 28, are as follows:

Robert A. Goodings, P.Eng., was elected President-elect, and Kenneth G. Lopez, P.Eng., was elected Vice President. Kenneth C. McMartin will serve as Past President. Members also elected the following to Council:

- Councillor-at-Large—Bruce E. Clarida, P.Eng. (by acclamation);
- Northern Regional Councillor—David

- C. Robinson, P.Eng. (by acclamation);
- Eastern Regional Councillor—Cliff Knox, P.Eng.;
- East Central Regional Councillor—Daniela Iliescu, P.Eng.;
- Western Regional Councillor—John O.G. Vieth, P.Eng.; and
- West Central Regional Councillor—Colin T. Moore, P.Eng. (by acclamation.)

About 18 per cent of members voted for candidates for President-elect and Vice President—positions for which all members were eligible to vote, compared to 18.5 per cent in 2003, and about 18 per cent in 2002.

At the first meeting of the new Council on April 24, 2004, Allen Lucas

was re-elected by Council to a third consecutive term as Vice President. Council elected Bruce Clarida and Colin Moore as Members of the Executive Committee.

The general election included a referendum. Members voted in favour of the question proposing amendment to section 18 of *By-law No. 1*. The question: "Do you approve the proposed change to Section 18 of *By-law No. 1* to permit an electronic alternative to a mail ballot as a voting method for PEO elections and referenda, should PEO Council authorize this alternative in the future?" received 7320 "yes" votes versus 1077 "no" votes. About 13 per cent of members responded. By-law revisions must be confirmed by member referendum to be effective.

How you cast your votes

President-elect (2004-2005)

Robert A. Goodings	4022
Maximus H. Perera	4002
J. David Adams	3672

Vice President

Kenneth G. Lopez	6757
Cameran Mirza	4381

Councillor-at-Large

Bruce E. Clarida	acclaimed
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Northern Regional Councillor

David C. Robinson	acclaimed
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Eastern Regional Councillor

Clifford L. Knox	1166
Nick P. Colucci	822

East Central Regional Councillor

Daniela E. Iliescu	1546
Corneliu Chisu	1155

Western Regional Councillor

John O.G. Vieth	1568
Michael C. Crutchley	892

West Central Regional Councillor

Colin T. Moore	acclaimed
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PEO honours service to the profession



Ten dedicated Ontario engineers were invested in PEO's Order of Honour during this year's Annual General Meeting. Flanking the Member category inductees are PEO President George Comrie, P.Eng., (back row, left) and Awards Committee Chair Márta Ecsedi, P.Eng. (back row, right). New Members are (back row) John Severino, P.Eng., L. Paul Short, P.Eng., George Biljan, P.Eng., Donald Grandy, P.Eng., Rohinton Nicholson, P.Eng., and Holly Anderson, P.Eng. Seated, from left, are inductees to the rank of Officer Maximus Perera, P.Eng., PEO President-elect Robert Goodings, P.Eng., and Thadeus Wysz, P.Eng., (far right). Gordon Sterling, P.Eng., (second from right) was invested as a Companion of the Order.

Regulators to police paraprofessionals

By SHARON ASCHAIK

The regulation of paraprofessionals has long been a complex issue within engineering, but is one that has become more high profile over the last few years.

The rapid adoption of new computer-based tools has created a situation where qualified engineering paraprofessionals, such as certified engineering technologists and technicians, now routinely do work once done only by professional engineers. Growing demand by industry and government for greater accountability along the continuum of engineering practice has also intensified debate on the issue.

Further complicating the matter in Ontario is the recent introduction by the college system of applied technology degrees, the curricula of some of which might lead prospective students to believe the programs meet the academic requirements for licensure as a professional engineer.

In B.C., the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) is working toward a merger of the practices of professional engineering and geoscience with the practices

independently. This would be where the scope of practice is limited to applying prescriptive codes and standards and is in accordance with practice guidelines approved by APEGBC Council.

APEGBC is currently collaborating with Applied Science Technologists and Technicians of British Columbia on a plan to integrate the two organizations, and the goal is to present a final version of the necessary legislation amendments to the provincial legislature this fall.

"It's a win-win relationship," says Bill Gilmartin, P.Eng., president of APEGBC. "Technicians and technologists will have a scope of practice, and they will take responsibility for their work—work for which professional engineers and professional geoscientists are currently responsible."

In Alberta, meanwhile, a similar "one act, one association" proposal has been turned down by the Alberta government, in favour of the status quo, where the Alberta Society of Technologists (ASET) remains a voluntary organization and the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA) regu-

while working their way through a laddered system of licensure toward full professional licensure. Although ASET's Council rejected the APEGGA proposal and said the only acceptable model would be an umbrella act covering a number of self-regulatory bodies, APEGGA forwarded its proposal to the government for consideration.

As Professional Engineers Ontario continues to regulate the limited engineering practice of technologists and others through its limited licence, the province's law profession is moving forward on a plan to have paralegals regulated by the licensing and regulating body for lawyers.

In January, the convocation (Council) of the Law Society of Upper Canada voted to have the Law Society take on the responsibility of regulating paralegals. The decision effectively put an end to more than 20 years of an unruly, free-for-all climate, in which anyone could call themselves a paralegal and begin practising.

Momentum was given to the matter when Attorney General Michael Bryant made a surprise appearance at the Law Society's monthly convocation meeting, and delivered an impassioned speech on the deleterious effects of the current state of affairs, and the critical role Law Society members could play in protecting the public by regulating paralegals.

"It is trite to say that an absence of regulation of paralegals to me is not in the public interest. I don't know anybody who would suggest that it is in the public interest to continue in the current circumstances," Bryant said.

"So I am asking that we get on with the first step, and that is, determining what needs to be done to create a self-funding regulatory model within the Law Society of paralegals."

He added that the Law Society would be far better off undertaking the initiative itself, rather than forcing the province to create a separate governing body.

"You do not want to see responsibility for the regulation of paralegals through another body that may at times be brilliant, at times ignorant, at times foolish in the

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of engineering and geoscience technology (see page 42).

If such a merger were to occur, engineering and geoscience technology would be treated as restricted subsets of professional engineering/geoscience. Technologists would still be able to work under the supervision of the licensed practitioners, but, in some cases, registered engineering technologists (RETs) and registered geoscience technologists (RGTs) would be able to work

lates about 100 RPT(Eng)s (registered professional technologists) who have an independent scope of practice within a defined area. ASET had been lobbying the government for its own act with self-regulatory powers to enable it to license certain technologists and define their scopes of practice. In government-mandated discussions with ASET last year, APEGGA had proposed restructuring itself to enable technologists to be full members of APEGGA

way in which they govern regulation of paralegals,” he said. “It is not in the public interest; it is not in the interests of our profession; and I do not believe it is ultimately in the interests of paralegals either.”

Lawyers and paralegals have been at odds since the late 1970s, when paralegals began burgeoning in number, and lawyers perceived them as a threat to their livelihoods and to the sanctity of the profession. There has been a push for regulation for some time, with some judges warning about the threat of miscarriages of justice and other potential dangers to the public.

The treasurer of the Law Society has received the green light to establish a working group, which will assist the Ministry of the Attorney General in devising a detailed proposal for the regulation of paralegals.

Sharon Aschaiek is a freelance writer, based in Toronto.

Assign hearing costs—or not?

Discipline Committee sticks with flexible approach

BY CONNIE MUCKLESTONE

Should discipline panels automatically award hearing costs to PEO as a penalty for a guilty finding in a discipline hearing? Should PEO establish and publish a per-day hearing cost for all to know in advance of a hearing? These were hotly debated questions at the Discipline Committee’s annual general meeting on March 11, 2004.

As background, the committee was provided a summary of discipline hearing costs for PEO’s 14 2003 hearings, which showed a highest cost of

\$49,417.75 and a lowest cost of \$8,965.40. The average hearing cost was \$23,719.67. It was also told that some other Ontario professions have established and published per-hearing-day tariffs, which in the case of at least one profession is imposed automatically as a penalty for a guilty finding.

Some committee members favoured automatically imposing a pre-determined cost whenever there is a guilty finding, as an incentive for the subjects of discipline hearings to be well prepared for their hearings, and to consider seriously resolving



The Discipline Committee debated assigning per-day hearing costs against a guilty party at the committee's AGM, held in March. Shown are (left to right): independent legal counsel Nancy Spies; Committee member Ken Serdula, P.Eng., Chair L. Brian Ross, P.Eng., and PEO Deputy Registrar, Regulatory Compliance, Roger Barker, P.Eng., staff advisor to the committee.

Nancy Spies, independent legal counsel to the Discipline Committee, said she supported the conclusion that assigning costs should remain a matter of argument at each hearing, and that the suggested \$10,000/day tariff should be a guideline for panels to consider.

matters through Agreed Statements of Facts and Agreed Submissions on Penalty. When hearings that could have been concluded by agreed facts and agreed penalties proceed to a full hearing where evidence is called, or delays are caused by being unprepared or having no legal counsel, other members of the profession should not pay these unnecessary expenses through their annual licence fees, some members of the

committee felt. A per-hearing-day rate of \$10,000 was suggested.

Others were uncomfortable with both automatically assigning costs against a guilty party and establishing a per-hearing-day rate. They felt each discipline panel must make its own decision on assigning costs against guilty parties, taking into account the circumstances of the case. One committee member suggested PEO's discipline process is a necessary part of professional self-regulation, so that the cost should be borne by all members through their licence fees, which should be increased if necessary.

In the end, the committee concluded that each discipline panel should continue to decide for itself whether to assign costs and the amount of such costs, but that PEO members should be made aware that panels are tending to assign costs more frequently as a penalty.

Nancy Spies, independent legal counsel to the Discipline Committee, said she supported the conclusion that assigning costs should remain a matter of argument at each hearing, and that the suggested \$10,000/day tariff should be a guideline for panels to consider.

CEO names first water quality scholarship recipients

By MICHAEL MASTROMATTEO

Consulting Engineers of Ontario (CEO) has identified the first two universities to participate in a \$250,000 scholarship program funding research into Ontario's water quality protection and treatment.

CEO selected the University of Toronto and the University of Guelph in late February at the start of National Engineering Week.

The scholarship program will fund up to six graduate student researchers—each for a two-year period—to take part in water quality research programs as selected by a CEO committee. CEO set up the Water Quality Research Scholarship in response to the May 2000 events in Walkerton, where seven people died after drinking water contaminated by E. coli bacteria.

The University of Toronto project, entitled the "Impact of Particles on the Effectiveness of UV to Disinfect Drinking Water," will be under the direction of Ron Hofmann, PhD, P.Eng., of the department of civil engineering. It will focus on water quality conditions that impede ultra-violet disinfection technologies, allowing a better understanding and better use of UV disinfection in water treatment processes.

Bahram Gharabaghi, PhD, P.Eng., of the University of Guelph's engineering school, will oversee the second project, "Development of GIS-based Decision Making Support System for Water Resources Management and Planning." This project is aimed at developing a tool to help conservation authorities and engineers identify polluted water sources and to select more efficient practices for improving water quality.

Each university will now nominate a qualified graduate student to receive the scholarship, subject to criteria set by CEO. Each scholarship is in the amount of \$20,000 a year for two consecutive years. Over the next two years, CEO will select up to four more research projects for the scholarship.

CEO President John Gamble, P.Eng., said the scholarship program is a fitting venture for an organization dedicated to sustainability and protection of the public.

CEO President John Gamble, P.Eng., said the scholarship program is a fitting venture for an organization dedicated to sustainability and protection of the public. “We’re very pleased to be supporting research through this initiative,” Gamble told *Engineering Dimensions*. “The scholarships will help raise the level of science in the area of water treatment programs and they have the added benefit of training future leaders who will bring a high level of specialization in water quality and treatment programs to the community.”

Gamble said the program was developed after extensive consultation with the academic community to ensure that the research dollars are used to maximum benefit. He added that CEO has received positive feedback from Ontario universities to the scholarship, and that a number of worthwhile research projects are interested in applying for future funding for the CEO program.

“We believe that by supporting this research, we will be assisting municipalities and consulting engineers who are responsible for ensuring safe drinking water in our communities,” said Terry Hardy, P.Eng., chair of CEO. “CEO takes pride in being able to give back to the university community, where our future water experts will be trained and will perform the research that can improve the quality of drinking water.”

All Ontario universities are eligible to apply to the research scholarship program. Students receiving the scholarships must be enrolled as graduate students in a Canadian Engineering Accreditation Board-accredited engineering program. Eligible areas of research include contamination detection and treatment, source water protection, and the economics of drinking water infrastructure.

Ontario's Engineering Week 2004 breaks activities record, celebrates 13th anniversary

By JUDY SAURETTE

From building bridges and robotic arms to designing electromagnetic fishing poles, thousands of enthusiastic children, and sometimes parents, let their imaginations run wild during Ontario's 13th annual National Engineering Week (NEW) activities, held February 28 to March 7, 2004.

Engineers, technicians and technologists and engineering and technology students set a new record by organizing over 100 events and activities in about 35 Ontario communities.

Each year more and more NEW events focus on young people and involve hands-on activities that help to demonstrate real-life applications of the mathematics and science they learn in school. This focus is a good fit with the goals of Engineering Week, which are to raise awareness of the importance of engineering and technology in our daily lives and to encourage young people to consider engineering as a career.

K'NEX construction workshops challenged the children and parents at five locations in Ontario: the Ontario Science Centre in Toronto, the London Regional Children's Museum, Ottawa's Canada Science and Technology Museum, Science North in Sudbury and

the new Waterloo Children's Museum in Kitchener. Over 160 engineering students and engineering and technology volunteers were on hand at the workshops to assist families with their building projects.

In Ottawa, Grade 4 to 6 students participated in a series of classroom and off-site competitions as part of the National Research Council and PEO-sponsored Mars Exploration Challenge, which required them to design and build a mechanically-

powered rocket launcher. The growth of the annual Engineering Challenge has been exponential; from 125 participants and five classes in 2001, it has climbed to over 1,500 students and 53 classes in 2004.

Other design challenges involved pasta or popsicle stick bridge-building, mousetrap-powered vehicles, robotic arms, paper airplanes, egg droppers, electro-magnetic fishing poles and watchtowers.

Engineering Week is organized in Ontario by the National Engineering Week Ontario Steering Committee. The partner-



Above: Grade 7 and 8 students participate in the electro-magnetic fishing pole design competition during the Engineering Week 2004 Challenge hosted by Lakehead University and the PEO Lakehead Chapter.

Left: Engineering student volunteers help families build mind-boggling structures at the London Regional Children's Museum during Engineering Week 2004.

ship includes Professional Engineers Ontario, the Ontario Society of Professional Engineers, Consulting Engineers of Ontario, Ontario Association of Certified Engineering Technicians and Technologists and the Ontario Science Centre.

Judy Saurette is National Engineering Week Ontario's marketing director.

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*“It’s amazing what they
are doing in telerobotics,”
noted David Robinson,
P.Eng., past chair,
North Bay Chapter.*

demonstrate what people are doing in engineering with emerging technologies.”

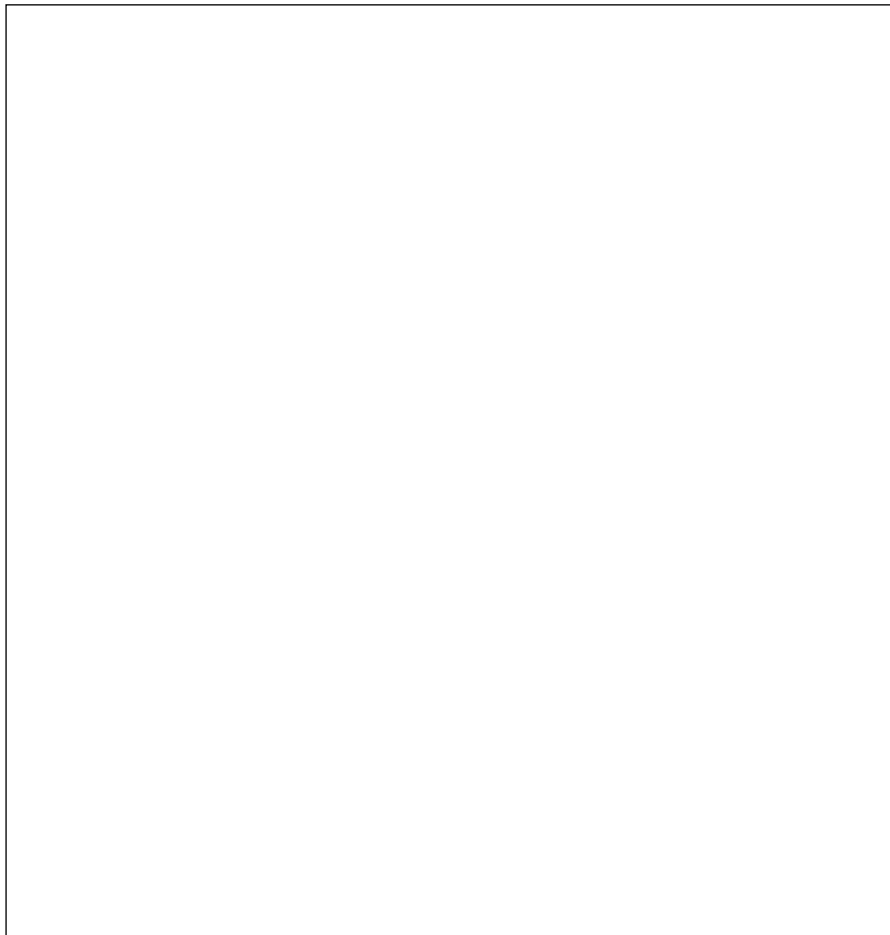
North Bay residents will also benefit from engineering innovation in improved drinking water quality, surpassing standards in the *Safe Drinking Water Act 2002* and new Drinking Water Protection Regulations. City Engineer John Simmonds, P.Eng., reported that the new North Bay water filtration plant “will be capable of producing water that will exceed existing regulations for a long time to come.”

Simmonds and Project Manager Martin Gravel, P.Eng., of CH2M Hill, outlined the membrane filtration system that will filter out particles, including parasites, bacteria and some viruses. Automatic, continuous monitors will be used to measure turbidity and particle count, and ultra-violet light and chlorine injection will disinfect throughout the distribution system.

About 65 people attended the public event sponsored by the North Bay Chapter and the Ontario Association of Certified Engineering Technicians and Technologists (OACETT). Friday evening began with a reception with greetings from PEO’s then President-Elect George Comrie, P.Eng., North Bay-area native and PEO CEO/Registrar Kim Allen, P.Eng., North Bay Chapter Chair David Euler, P.Eng., and OACETT executive representative Bernice Green. Saturday’s luncheon included remarks from guests North Bay Mayor Vic Fedeli, and MPP Monique Smith, licence certificate presentations to three new professional engineers, and the announcement that long-time chapter executive member John Severino, P.Eng., was to be inducted into PEO’s Order of Honour at PEO’s Annual General Meeting in April (see p. 11.)

*Karen Hawthorne is a freelance writer,
based in Toronto.*

John Simmonds, P.Eng., (left) discussed the membrane filtration system technology that will improve the quality of drinking water in the North Bay region, at the chapter’s 34th Annual Professional Engineers Day, held January 24 and 25. The event celebrated the theme “Wellness through Emerging Technology.” With Simmonds, left to right, PEO Northern Regional Councillor Seimer Tsang, P.Eng., and PEO CEO/Registrar Kim Allen, P.Eng.



OIQ satisfied by court judgment

By SHARON ASCHAIK

Microsoft Canada's use of the word "engineer" in its international software certification program breaches a provincial professional code, a Quebec Court has found.

The April 5 ruling by Judge Claude Millette of the Court of Quebec has ended a tense two-year court case that was initiated by the Ordre des ingénieurs du Québec to combat widespread use of the title by those not qualified to use it. Such misuse is an offence under the province's Professional

Code, which regulates the use of several professional designations in Quebec.

It is the first time Microsoft has been penalized for using the term, which is incorporated in its Microsoft Certified Software Engineer designation.

"The professional system in Quebec is confident enough to take a position against one of the biggest corporations of the world," says Denis Leblanc, ing., secretary and general manager of OIQ. "Companies have to play by our rules."

He added that the ruling is important to eliminating public confusion about who is and isn't qualified to call himself or herself an engineer, and reaffirms the need to protect the public from possible harm by those misusing the title.

"In the public's mind, the term "engineer" means a lot—attached to it is all the credibility of a professional title," Leblanc said. "If we allow anyone to use the title, people will see the term 'engineer' everywhere and won't have the confidence that

Community honours Canada's Military Engineers



On February 20, PEO's Algonquin Chapter hosted a celebration honouring 100 years of contributions by Canada's Military Engineers (CME). The mission of CME is to contribute to the survival, mobility, and combat effectiveness of the Canadian Forces. Currently, CME are engaged in critical support to the Canadian peacekeeping effort around the world. They also serve Canada by mapping the Arctic, helping Canadians during natural disasters and opening roads, bridges and airfields. In attendance were members of the CFB Petawawa Military, PEO executive, Atomic Energy of Canada Limited, Jp2g Consultants Inc., Engineers and Planners of Pembroke, and members of the public. Back row, left to right: Pravin Shah, P.Eng., chair of the chapter's planning committee, PEO's then President Ken McMartin, P.Eng., Alice Ballantyne, MC for the event Paul Ballantyne, P.Eng., a former chapter chair, Major Alan Mulawyshyn, CD, P.Eng., Deputy Commanding Officer of 2 Combat Engineer Regiment (2CER), Captain Amanda Mulawyshyn, P.Eng., Major Keith Cameron, CD. Front Row, left to right: Susan Finley, Jackie Shah, Major Tim Gorman, Algonquin Chapter Chair Greg Finley, P.Eng., and Heather Cameron.

“If we allow anyone to use the title, people will see the term ‘engineer’ everywhere and won’t have the confidence that everyone using it has the same standard of training and experience,” said Denis Leblanc, ing., secretary and general manager of OIQ.

everyone using it has the same standard of training and experience.”

Microsoft announced shortly afterward that it would appeal the decision, which carries a fine of \$1,000.

The “engineer” title has been in use by the IT industry since the 1960s and was popularized by such major players as IBM and Microsoft. But over the last several years, as some areas of IT and engineering work have begun to overlap and the number of IT practitioners has grown rapidly, engineers have raised concerns about misuse.

OIQ brought its legal action in 2002, shortly after Microsoft reversed its May 2001 decision to advise Canadian MCSE holders not to call themselves engineers.

Paul Bassett of the Canadian Information Processing Society (CIPS) says the engineering community’s efforts to regulate use of the title will cause confusion globally, because of its widespread use, and also nationally, where different provinces are taking different approaches on the matter. Indeed, earlier this year, an Edmonton court threw out a case brought by the Association of Professional Engineers, Geologists and Geophysicists of Alberta against a non-P.Eng. Apple Canada-certified systems engineer, stating his use of the title presented no injury to the public (see *Engineering Dimensions*, March/April 2004, pp. 15-17).

Bassett adds that it’s too early to begin imposing rules about titles and licensure in the still rapidly evolving area of software development.

“When a field is this young and immature, it’s the wrong model to want to license practitioners. It’s foreclosing on innovation and choking off what needs to happen—a flowering of new ideas,” he said.

For its part, the OIQ maintains that those who use the title without possessing the proper qualifications are breaking the law and putting the public at risk. It is preparing for Microsoft’s appeal, and will also pursue lawsuits against individual MCSE holders in Quebec.

“Now that the ruling is in favour of us,” Leblanc said, “we will push forward and make sure people who have been certified by Microsoft will respect the rule.”

Sharon Aschaiek is a freelance writer, based in Toronto.