THE MANITOBA
# Professional Engineer
April, 1996
APEM

## Recognition Night '96

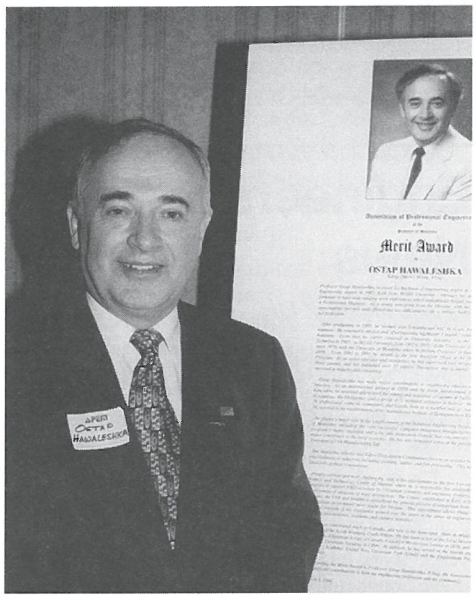
*By: C.A. Nieuwenburg, P. Eng.*

The Crowne Plaza was the place to be on the evening of March 5, 1996, as APEM held the third annual "Recognition Night" to welcome new members to the Association and to honour the 1995 recipients of the Merit Award and the Certificate of Engineering Achievement Award.

The evening was hosted by Vice-President Mal Symonds, and began with the presentation of certificates to the eight new members in attendance who had become registered with the Association between November, 1995 and January, 1996. Another 15 new members also in attendance, who had become registered during the March to October 1995 period, were acknowledged by Shirley Matile, Director of Admissions. In total, APEM welcomed 179 new members to the Association between March, 1995 and January, 1996.

The Chair of the Awards Committee, Dr. Doug Chapman, stepped up to the podium next to make the formal presentations of the Merit Award and the Certificate of Engineering Achievement Award.

The 1996 recipient of the Merit Award was Ostap Hawaleshka. Professor Hawaleshka received his Bachelor of Engineering degree in 1960 and his Master of Engineering degree in 1965, both from McGill University. He began working at the University of Manitoba in 1970,




*Ostap Hawaleshka,*
*APEM Merit Award Recipient.*

and became Professor of Industrial Engineering in 1984. In fact, he played a major role in the establishment of the University's Industrial Engineering Program, and was involved with the very successful Computer-Integrated-Manufacturing Laboratory. As an active educator and researcher, he has supervised over 40 graduate students, holds three patents, and has published over 35 papers.

Ostap has also made major contributions to engineering education in Asia and South America as an international advisor to CIDA and the Asian Development Bank on Engineering Education. He also assisted in the establishment of the International Institute of Management in Kiev.

His current endeavor has taken him to Kiev, where he accepted an appointment as the first Executive Director of the Science and Technology Centre of Ukraine. The Centre is funded by Canada, Ukraine, the US and Sweden, and is intended to advance the conversion, by scientists and engineers formerly involved with the development of weapons, to a civilian environment more useful for Ukraine. Drawing on his vast experience in engineering, management, business, international, academic and cultural activities, Ostap's responsibilities with the Centre will be to establish a $25 million program to support R&D activities.

Ostap made a special trip to Winnipeg to accept this award, and spoke of his zeal for the work he is currently doing in the Ukraine and how fortunate he feels to be recognized by his peers.

*Continued on page 9*


*DBF and City Of Winnipeg Engineers Recognized for Charleswood Bridge Project.*


The APEM office will be moving, during the last week of May. As of June, 1996, our new address will be: 850A Pembina Hwy. Winnipeg, Manitoba R3M 2M7. Please check the June, 1996 issue of the MPE for our new phone and fax numbers.

THE MANITOBA
Professional Engineer

**April, 1996**

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# University of Manitoba Engineering Students Excel

*By: G.A. Morris, P.Eng.*

Engineering students at the University of Manitoba have topped the country in the competition for Special Corporate Awards. The awards are made, in a national competition, to undergraduate students in Science, Engineering and Agriculture who received Canada Scholarships on entry to university. With a value of up to $1,500, they "top up" the $2,500 Canada Scholarships. The selection of the winners is done by the Association of Universities and Colleges of Canada, based on outstanding academic achievement.

The University of Manitoba placed first in the competition with 15 awards, followed by the University of Waterloo with 11, and the University of Toronto with nine. Of the 15 Manitoba awards, seven went to Engineering students. The Engineering award winners were:

- Jennifer McKay, Electrical Engineering – Unitel Award;
- Dileepan Joseph, Computer Engineering – GE Canada Award, and Reginald A. Fessenden Award;
- Cameron McCartney, Mechanical Engineering – Rio Algom Award;
- Richard Moore, Mechanical Engineering – Rio Algom Award;
- Claudio Zubin, Mechanical Engineering – Rio Algom Award; and
- Kenneth Chalmers, Computer Engineering – Unitel Award.

Now, where did I put my *Macleans* magazine? □

# Engineers in the News

*By S.M. Matile, P. Eng.*

**Dr. Rod Read, P. Eng.** has won a Tunnelling Association of Canada (TAC) award for his research into rock stresses and the damage caused to rock during tunnel excavation.

Dr. Read, a research engineer at Atomic Energy of Canada Ltd.'s Underground Research Laboratory in Pinawa, won the award for six years' work related to AECL's Mine-By Experiment, conducted to develop an understanding of rock damage and rock failure. In his work, Dr. Read developed a new technique for determining initial stresses in a rock mass containing a tunnel. The results of his research will benefit the mining industry in tunnel-support design.

**Kenneth S. Kidd, P. Eng.** has been appointed Plant Manager of Winnipeg's New Holland, Canada, Ltd. Versatile Farm Equipment Operations.

Mr. Kidd, whose career began in Scotland in 1963, spent the next 14 years overseas, holding planning, engineering and production positions before emigrating to Canada and joining Versatile in 1977. In 1984, he graduated from the University of Manitoba with a Master's degree in Mechanical Engineering. In 1990, he became Versatile's Manufacturing Manager of Operations, a position he held until his recent promotion to Plant Manager.

Congratulations to you both! □

## WE HAVE LOST CONTACT. MAY WE HAVE AN ADDRESS?


A.I. McQuilkin
F.W. Nielsen
W.J. Reinisch
L. Stocco
E.B. Wilson

## LICENCES ISSUED JANUARY & FEBRUARY, 1996

E.B. Atalay (ON)
W.F. Barraclough (PA)
D.D. Benoy (MN)
T.W. Hedberg (MN)
K.C. Miller (DE)
K.J. Pontiff (PA)
P.A. Surace (PA)
T.W. Tweedie (AB)

## NEW MEMBERS REGISTERED JANUARY & FEBRUARY, 1996

P. Alport (NF)
B.J. Bell (ON)
H.P.J. Buller
C.E. Chan (BC)
L.M. Danchuk (AB)
E.R. Fidgeon
P.J. Gislason
H.R. Heidrich (BC)
S.S. McCavour (ON)
J.M. McPhee
G.D. Michalishen (SK)
B.G. Milne
Z. Mlinarevic
D.N. Murray (SK)
H.M.B. O'Connor (SK)
M.P. Patel (ON)
B.E. Petzold (AB)
P.J. Picton
P.A. Scalzo (ON)
T.R. Studer
E. Teklemariam
K.A. Wilson (NS)

## REINSTATEMENTS JANUARY & FEBRUARY, 1996

W.R. Hughes
D.L. Lazar
S.J. Singh

## ENGINEERS-IN-TRAINING ENROLLED JANUARY & FEBRUARY, 1996

M.E. Baril
N.D. Boyd
R. Chen
T.G. Crowe
R.P. Doerksen
B.E. Dunn
C.W. Flatley
P.A. Forsyth
B. Gryc
J.D.N. Hyrich
J.L. Ivison
C.J. Kingsland
P.L. Majer
H.K. Man
G.J. Militano
O.B. Nayak
P. Papadimitropoulos
C.N. Perretts
F.S. Qie
Y. Qin
M.S. Qureshis
G.G.B. Robinson
K.L. Shuwera
W.K. Silvester
E.A. Thornton-Trump
H. Yu
R.P. Vercaigne

## President's Message

C.L. Stewart, P.Eng.

# Revising the Engineering Profession Act

*(Getting Our Act Together)*

The Draft of The Engineering and Geoscientific Professions Act is on the streets! All of the APEM committee members and various stakeholders such as the land surveyors', architects', technologists', and the natural scientists' society have received copies of the draft Act. The Association began considering some of the changes proposed in the revised Act as long ago as 1972. It has taken a concentrated effort by the talented folks on the Legislation Committee to persevere and redraft the Act to incorporate the following changes:

**Gender neutrality –** terminology has been revised to reflect that engineers are women and men.

**Group Practice –** companies will be required to obtain a certificate of authorization to allow a point of entry for investigations into complaints against engineering corporations as well as individuals.

**Inclusion of Geoscientists –** at the request of the geoscience community in Manitoba. Because of a significant overlap in the work done by Professional Engineers and Geoscientists, it is desirable to have both professions governed by the same legislation to avoid conflict. This is the case in British Columbia, Alberta and Newfoundland.

**Discipline provisions –** have been revised to ensure that resigning from the Association does not allow an engineer to abdicate their responsibility for actions taken while he or she was a practising engineer.

**Lay member representation –** to be allowed (but not required) on all committees. This will ensure that our admission, discipline and enforcement policies have non-engineering perspectives and are more open to public scrutiny.

**The provision for a restricted license –** which would allow an individual to be licensed to practice engineering or geoscience within a limited scope and under certain restrictions as specified in the license.

Although the draft itself does not contain a revised definition of the practice of engineering it is proposed that the CCPE definition of engineering be used. It reads as follows:

*The "practice of professional engineering" means any act of planning, designing, composing, evaluating, advising, reporting, directing or supervising, or managing any of the foregoing that requires the application of engineering principles, and that concerns the safeguarding of life, health, property, economic interests, the public welfare of the environment.*

This is quite a change from the traditional shopping list of engineering disciplines (civil, electrical, chemical etc.) that is contained in our existing Act.

The new definition carries with it an exclusion clause to address the concerns of natural scientists who felt that the CCPE definition might restrict their right to carry out scientific work. The exclusion clause is;

*"Nothing in this Act shall prevent an individual who either*

- *holds a recognized honors or higher degree in one or more of the physical, life, chemical, computer, or mathematical sciences, or who possesses an equivalent combination of education, training and experience, or*
- *is acting under the direct supervision and control of an individual described in the preceding paragraph*
- *from practising natural science which for the purposes of this Act, means any act (including management) requiring the application of scientific principles, competently performed."*

I believe that the CCPE definition and exclusion represents the complex world that we now live in. The spheres of science and technology have become so interwoven that engineers are no longer the only ones capable of championing the causes of safety and public protection. Indeed, we rely on others to assist us in doing our own work. Therefore, I believe that our responsibility lies in regulating the practice of engineering and not in using our valuable energy to fight with scientists and technologists over every scrap of turf.

The Legislation Committee is prepared to attend committee meetings to answer questions. Meetings with the geoscience community are currently in the planning stages. A general meeting with the APEM membership is also being planned for June. After the consultation process, and revision of the draft, we intend to be ready to present the revised Act to the Minister of Labour in the fall of 1996.

As always, I invite and look forward to your comments. □

# Have You Been Asked to Provide a Reference?

*By: S.M. Matile, P.Eng.*

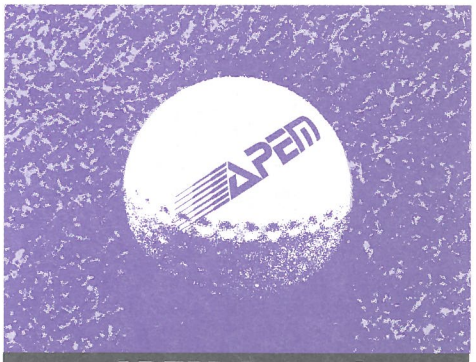
One of this Association's requirements for registration as a professional engineer is four years of suitable engineering work experience. Another is good character.

It is now a requirement for all engineering graduates to enroll as EITs and complete this Association's Pre-Registration Program prior to registration. The Pre-Registration program includes the semi-annual submission of progress reports describing the engineering work experience obtained. These reports have to be substantiated by the Professional Engineers who supervised the work. This Association relies heavily upon its members to provide information and opinions regarding the nature of an EIT's work experience and the EIT's performance, professional practice and character. It is largely on the basis of information provided by Professional Engineers associated with them that EITs are granted the right to practise engineering.

When asked to provide supervisor report or reference forms, you are assuming a serious responsibility. It is imperative that you be candid, thorough, and absolutely truthful in your completion of these forms, because, once registered, the Professional Engineer is legally entitled to practise engineering without supervision – guided, as you are, only by his or her conscience and the Professional Engineers' Code of Ethics.

We appreciate the inconvenience our requests sometimes create for you, and we are certainly grateful for your timely co-operation and support. We simply remind you of the importance of the supervisor and referee to the registration process, and urge you to take these responsibilities very, very seriously. □

# Attention Golfers!

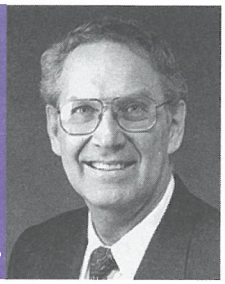



## APEM Annual Golf Tournament

**Date: Thursday, June 20, 1996**
**Place: Falcon Lake Golf Course**
**Mark Your Calendar!**

## CCPE Chair of the Council's Message

Garry Wacker, P.Eng.



# A Vision for Engineers

CCPE's undertaking to draft a vision for the engineering profession in Canada before the turn of the century reached a significant milestone at its Semi-Annual Meeting in Ottawa in November, 1995. Seventy attendees from across the country, including representatives from all constituent associations and national engineering bodies and other stakeholders, participated in a two-day intensive workshop.

The issues were debated in small working groups, enabled with a background of two discussion papers, the preliminary results of a survey of engineers, and consideration of continuing and emerging fundamental values of the profession and qualities of its practitioners. The discussion papers were prepared during the summer specifically for this purpose. They addressed legitimacy questions, explored a range of regulatory alternatives and provided an environmental scan. The results of telephone interviews of 435 professional engineers across Canada provided input from the perspective of the engineers in the marketplace. The consultative approach was sufficiently broad and comprehensive that the outcome of the exercise is considered to be the collective opinion of the engineering profession in Canada today.

A strong consensus emerged regarding the following major elements of the vision for the engineering profession in Canada. Some of the vision elements come as no surprise, since they represent the continuing core of the profession, while others clearly represent new directions or contain nuances of long-standing components and therefore bring new dimensions to our role as engineers.

- The applied sciences are the foundation of the profession. The profession is committed to keeping members' knowledge current through a process of life-long learning.
- Engineers are builders and creators; creativity and innovation are the heart of the profession. By the creative application of existing and emerging technologies, engineers are major contributors to economic advancement and wealth creation, which lead to enhanced quality of societal functioning and improvement of the human condition.
- Stewardship is a cornerstone of the profession. Engineers aspire to protect the environment and ensure the judicious, conscientious and sustainable use of renewable resources.
- The profession plays a vital leadership role in the protection of the public through its advocacy, educational and regulatory activities
- Engineering is a self-renewing profession. It adapts to advances in the applied sciences, technological innovation, the emergence of new fields of practice, and geo-political, economic and competitive changes.

Several of the elements describe a role for engineers that goes well beyond the purely technical domain to include aspects related more directly to societal applicability and usefulness. Another element enhances the self-regulatory function of the profession to include public advocacy and educational objectives. The notion here is that true technological leadership by the profession in modern society is possible only if it embraces public advocacy and education within its mandate.

To suggest that these aspects have been absent in engineers' past endeavors would be incorrect. But it would also be fair to say that, with some exceptions, such broader interpretations of the engineer's role tended to be only an adjunct to, or enhancement of, the technical responsibility. Incorporating them within the vision of the profession is to afford these aspects a complementary prominence with the technical role. This is a significant paradigm shift.

The last element is particularly powerful and, in a sense, most 'visionary', because it embraces

*Continued on page 12*

# Meet Your New Councillor – Brian Stimpson, P.Eng.

*By: W.G. McKay, P.Eng. (Ret.)*

Professor Brian Stimpson, raised in Colchester, England, completed his first degree in Physics and Geology before proceeding to Imperial College, London, to continue his education, receiving an M.Sc. and a Ph.D. in engineering Geology by 1971. During the latter years at Imperial College, he lectured in rock mechanics and, through his contacts there, he became aware of the opportunities in Canada.

New approaches to rock stability in open-pit mining were being developed, and one of the likely prospects of employment was with the Iron Ore Company of Canada development at Shefferville, Quebec.

However, Brian and his family selected the Vancouver office of Golder, Brawner & Associates. From this office he travelled throughout Canada and world-wide for the next four years. Much of the work related to his expertise in rock mechanics in mining.

For a short period he was located in the Denver office of Dames & Moore, a well-established American consulting engineering firm in the broad field of earth sciences.

However, as those in the associated fields of mining and geology know, the profession is not conducive to a close family relationship. Brian returned to his other "forte" of education and joined the Department of Mineral Engineering at the University of Edmonton in 1975.

In 1984, he relocated to the Department of Geological Engineering at the University of Manitoba, as Head, a position he held until 1993 when the Department amalgamated with the Department of Civil Engineering.

In discussion with Brian on the future for geological engineering graduates, he indicated that the market for their services is definitely increasing. Jobs are available and employers such as Inco are well pleased with their Manitoba graduates.

As an APEM councillor, Brian's advocacy is for continuing education and he feels that the challenge is: "How do we provide the facilities for the professional engineer to continue his education after leaving the University?"

His past experience in the consulting engineering field is shown by his strong support for both practice and education and, as such, he is a proponent of the co-op work internships. Also, he is aware of the strong partnership between the technician/technologist and the engineer in the consulting industry.

Both at the Professional Association and CCPE level, Brian continues to be involved in the movement toward registration of geoscientists.

Brian and Jenny have a family of one daughter, three sons, and three grandchildren. No trend so far to engineering/geology, but perhaps with the grandchildren...?

At the community level, Brian and Jenny are heavily involved in the Learning Disabilities Association of Manitoba, in advocacy and running a support-group for parents.

It was an interesting interview, in which the English system, with its chartered members, was contrasted to the Canadian regulatory system. □

*Councillor Brian Stimpson*

# The Science and Technology Centre of Ukraine

*By: E.A. Speers, P.Eng., Liaison Officer, Science and Technology Centre of Ukraine*

The international Science and Technology Centre of Ukraine (STCU) was conceived as a result of the political, economic and scientific restructuring of the former Soviet Union. The radical and rapid changes that had accelerated in 1990 had contributed to acute underemployment of scientists and engineers formerly engaged in strategic weapons research. There was concern that highly qualified researchers from the defence establishment might take their services to terrorist states.

In February, 1992, Germany, Russia and the U.S. jointly called for the creation of an international Science and Technology Centre in Moscow to enable such scientists to engage in peaceful research, thus minimizing incentives to engage in weapons research.

Shortly afterwards, Canada, the U.S. and Sweden proposed a similar centre for Ukraine. An agreement establishing the Centre came into effect in 1994 after the election of President Kuchma.

In the interim period, the Canadian government sought candidates for the position of Executive Director. Selection criteria included scientific or engineering expertise and credibility, a strong managerial background and fluent Ukrainian. A selection board chose Dr. Ostap Hawaleshka, professor and former head of Industrial Engineering at the University of Manitoba.

The STCU is backed by Canada, the United States and Sweden to the extent of $23 million US with the Canadian International Development Agency (CIDA) funding Canada's contribution. Management of the Canadian portion of CIDA's effort is through the University of Manitoba.

At the start of the STCU, there was a call for proposals from the large numbers of scientists and engineers left unemployed following the break-away of Ukraine from Russia. The response was immediate and substantial, with over 340 proposals received and with more still coming in.

The first proposals were accepted, logged in to the STCU system and then vetted for technical and proposal acceptability. Once approved, they went to Ukraine Security, and as of last December, 30 projects had been released by Security. These were reviewed by an NSERC (Natural Science and Engineering Research Council of Canada) peer review committee and then passed to the STCU International Board of Directors meeting in Kyiv in December 1995. Twelve of the 30 projects were approved and funded to $1.6 million US. (The remainder may be revised and resubmitted.) Interest by Canadians in any project will cause it to be considered or reconsidered.

It is obvious that there is a bottle-neck in clearing the proposals through Security. As of February 6, 1996, only 77 projects have been cleared and these are now abstracted and available for research collaboration or investment by Canadians. They are all archived on the Internet.

These projects present golden opportunities to Canadians. New industries, not available in Canada, are involved in several of the proposals, which cover a wide spectrum – from plasma scalpels to boring wells at a rate of 70 metres/minute.

Why should Canadians help Ukrainians? There are many reasons, not the least being that there are half a million Canadians whose forebears came to Canada from Ukraine and have helped Canada develop to its present state.

In general, the Ukrainians who have presented proposals are well trained, highly-educated engineers and scientists. They are experienced in the techniques of the armament, space and other industries. For world security, it is desirable that they be engaged in peaceful pursuits which will assist the Ukrainian economy recover and thus not be drawn into other countries' conflicts.

The conditions affecting the Ukrainian population, due to the Chornobyl nuclear power-plant accident 10 years ago, have been devastating. From 1986 to 1989, the birth rate decreased 87% and the death rate increased. Compared to 1986 the population decreased in 1987 to 77.3%, in 1988 to 63.8%, in 1989 to 38.9% and in 1990 the death rate exceeded the birth rate and has done so every year since. During the first seven months of 1990, the death rate in Kyiv increased 8.1%, a catastrophic figure for peace times.

These conditions were accompanied by an increase in diseases: oncological, immune system, nephritis, chronic ureter infarctions and nervous disorders, due to the complex effects of the toxic and radioactive chemicals of industry and power plant wastes.

As a result of existing conditions, men in Ukraine between the ages of 13 and 29 are reported to have fertility problems, and one in five babies dies shortly after birth.

Medical diagnostic procedures require, in 70% of the examinations, X-ray equipment. Eleven thousand functioning X-ray devices are used in Ukraine, of which 54% are reported as "morally obsolete and have fully exhausted their physical resources", according to Dr. V. Leontyev of Kharkiv, Ukraine. (Twenty-three percent were manufactured in 1960-1970, 32% in 1970-1980.) Existing European standards require that roentgenology be conducted exclusively with amplifiers of X-ray images which thus reduce the exposure to irradiation doses on patients and medical personnel. Out of the existing devices, only 956 are fitted with amplifiers and these are of foreign make.

While these reasons are mainly medical and possibly altruistically based, there are many projects designed to ameliorate these conditions and where Canada's knowledge and capability could be of assistance. Research and development is a two-way street where cross-fertilization of ideas takes place.

These are some of the reasons we, as Canadians, need to commend the work that the Canadian International Development Agency is trying to do in Ukraine. It is not an easy task that the STCU has undertaken. The highlights of the effort to date have been largely due to the excellent Ukrainian staff that Dr. Hawaleshka has selected. They have accepted and logged in over 340 proposals, vetting them and sending them to State Security for clearance and from there to Canada, the U.S. and Sweden for peer review.

By agreement, the Ukrainian government supplied a headquarters for the STCU. The executive director selected a building and had it restructured and fitted with western fittings, etc. These new

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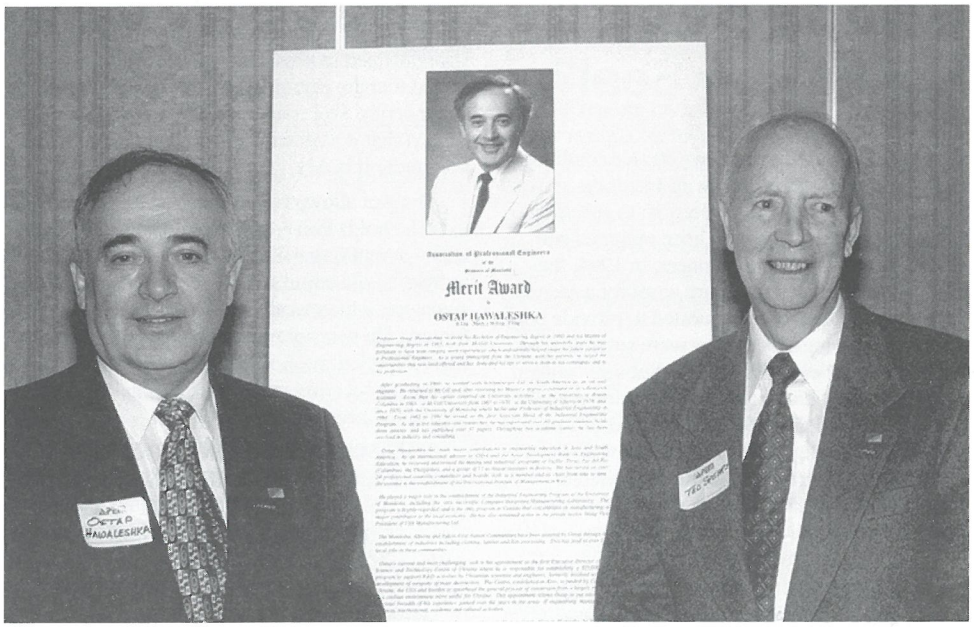



*Ostap Hawaleshka (l) and Ted Speers.*

# Research & Development

## MRnet – Broadband Research Opportunities for Manitoba Companies

*By: A. J. Pollard, P.Eng.*

The "Information superhighway" is alive and well in Manitoba, but there is still much work that remains undone. Dr. Clint Gibler, Chief Scientist at TRLabs Winnipeg, provided an overview of the technology and market trends that are affecting data networking and computing applications. The first trend is the change of computers from text devices to multimedia machines. Modern desktop personal computers contain advanced graphic- and audio-hardware that allows them to provide information to the user as video, images, and sounds as well as text. This increased capability requires modern computers to be able to move all data forms far more rapidly than previously. At the same time, explosive growth in the World Wide Web is adding information sources to the available pool at an unprecedented rate. Fortunately, new broadband networking technologies are emerging to help move this ever-growing amount of data. Asynchronous Transfer Mode (ATM) is the broadband technology of choice for moving vast amounts of different types of data. It is designed to merge video, voice, image and data traffic in a manner that is consistent with its own needs. Voice and video arrive uninterrupted while still-images and other data are carried expeditiously but with slightly lower priority. Currently, Internet commerce is still in its infancy. There are still impediments such as security concerns and data-rate limitations but these will soon be resolved and the result will be the addition of a significant business tool to those able to use it.

Manitoba is responding to these opportunities. MRnet, the Manitoba research net, is a consortium of public- and private-sector professionals committed to the advancement of broadband networking. MRnet users have access to cross-Canada connectivity because MRnet is connected to the Canarie National Test Network, a broadband network established with the assistance of the Federal Government. Researchers in different cities across Canada can collaborate on a project. MRnet also has access to the 1500 km of ATM backbone that MTS has established in the province of Manitoba and to TRLabs Fastnet High-Speed experimental network. The significant investment in Manitoba made by the MRnet partners and members gives Manitoba businesses a research facility that would not otherwise be available. It provides the opportunity to develop applications and services that use advanced data-networking and to operate advanced technology or service trials without leaving the province. TRLabs Winnipeg is also pursuing research in the areas of data compression to speed information flow and data repositories that will allow uniform presentation of existing dissimilar data-bases.

Parties interested in undertaking research or learning more about MRnet should call TRLabs Winnipeg at (204) 489-6060. □

## Is Anyone Else Using Your Seal?

In 1993, a Winnipeg heating and air-conditioning contractor installed an air-handling system in a restaurant according to specifications and drawings that had been prepared and sealed by a professional engineer. In 1994, the contractor attempted to secure work for a second restaurant and had been requested to provide construction drawings. Drawings were submitted by the contractor bearing a "counterfeit seal" copied from the earlier drawing. The professional engineer who sealed the 1993 drawing had no knowledge of the 1994 project. This matter was reported to the member and the Association through the diligence of other members of the Association.

At the request of the Association, this matter was investigated by the Winnipeg Police Service. The employee of the contractor who admitted transferring and altering the date on the 1993 seal was identified and the Department of Justice was notified. The Crown, in a letter to the Association, declined to prosecute the individual and suggested that the person may be in breach of the Engineering Profession Act and advised the APEM that it may wish to commence a prosecution under this Act.

The Act allows for prosecution of the individual if he holds him – or herself out to be an engineer – something the individual did not do. The individual did admit to transferring the seal and signature, which would be a basis for a charge of forgery. He was not prosecuted because the Summary Convictions Act specifies a time limitation for the prosecution under the Criminal Code, which had been exceeded.

THIS MATTER IS BEING BROUGHT TO THE ATTENTION OF THE MEMBERSHIP TO CAUTION MEMBERS TO TAKE EXTREME CARE TO ENSURE THAT THEIR SEALS ARE NOT USED FRAUDULENTLY, AND TO NOTIFY THE ASSOCIATION IMMEDIATELY IF THERE IS A CONCERN OF FRAUDULENT USE OF THE SEAL. □

# Letters to the Editor

Dear Editor:

Re: February Issue, MPE – Letter from V.L. Dutton

Many of our members may sympathize with Mr. Dutton and his opposition to French nuclear testing. In this world, there are many issues and philosophies with which any one of us may take exception. If we were to boycott the products of every country associated with such causes, we would find ourselves isolated very quickly.

Aside from that, we should not make the mistake of associating innocent producers of wine, cheese or glasses with the policies of their national governments. It is noteworthy that many Europeans take exception to our country's seal-hunting practices, which many of our members may also oppose. It would be unfortunate for Canada to be boycotted by other nations.

I suspect that virtually every country does at least one thing which offends someone else, somewhere in the world. If the whole world followed Mr. Dutton's advice, and everyone boycotts the products of countries which in one way or another offend someone's sensibilities, international trade would collapse, along with our global economy.

Sincerely,

W.H. Brant, P.Eng.

● ● ● ● ●

Sir:

"Council Reports" regarding the NAFTA agreement on engineering services in the last two issues are both disturbing and intriguing. Will engineers with a Mexico address be permitted to practise in Manitoba without registration in either Mexico or Manitoba? If engineers in the UK, Australia, Germany and in other countries practise without registration, is it necessary for Manitoba to require registration? More information and analysis would be helpful.

Frank Penner, P.Eng.

*Editor's Note:*

*We understand that the answer to Mr. Penner's first question is no. The second is one of a more philosophical nature. However, the Report of The Manitoba Law Reform Commission suggests that it is necessary for Manitoba to require registration.*

# Meet Your New Councillor – Carol Roberts, P.Eng.

*By: H.S. Zbigniewicz, P.Eng.*

One of our newest councillors is Carol Roberts. Carol spent her early years in Saskatchewan. Following high school, she completed Engineering Drafting Technology at the Saskatchewan Technical Institute in Moose Jaw. She worked at AECL in Pinawa for five years, following which Carol entered the University of Manitoba, graduating in 1988 with a Bachelor's Degree in Mechanical Engineering. Carol's work experience as an engineer includes: a year and a half at Bristol Aerospace in Facilities Engineering; five years at Wardrop Engineering in the Mechanical Department; and, since the summer of 1995, work at the Cangene Corporation, formerly Rh Pharmaceuticals.

Carol has been very active on many committees within the APEM and other professional associations. She is not one to shy away from an issue she feels strongly about. This is illustrated in the time and effort she has devoted to the engineering profession.

Carol feels that one of the most important issues is increasing public awareness of our profession. She has demonstrated her commitment to furthering public awareness by participating in various committees and activities such as: Public Awareness Committee, Enforcement Committee, Innovators in the Schools, National Engineering Week Planning Committee, and the Planning Committee for Engineering Activities at the Manitoba Museum of Man and Nature. Carol believes that public awareness will encourage membership in the APEM and promote the enforcement of the Engineering Act.

The role of women in the engineering profession is another issue of interest to Carol. She established the Women's Engineering Network, of which she was Executive Director from 1992 to 1995. She traces her desire to establish the network to the Montreal Massacre. Carol feels that women in our profession are often isolated from one another and that this can be minimized by a network. Carol was also the Chair of the Women-in-Engineering Advisory Committee and was on the Board of Directors of the Canadian Coalition for Women in Engineering, Science and Technology. She is currently a member of the CCPE President's Committee on gender equity. Carol is concerned that there is the perception that the engineering profession is now "woman friendly". She points out that hiring women does not equate to acceptance. Though the first steps have been made to include women in the profession, there is still work to be done.

Carol is also currently Liaison Councillor for the University Liaison and the Technologists Committees.

On a personal note, Carol and her husband, Jerry Wyshnowsky, live in the Wolseley area. In the summer they enjoy spending time on their sailboat at Lake of the Woods with their sailor cats, Spike and Cleo. □

*Councillor Carol Roberts*

# Science in the Summer

Do you know someone who would benefit from a fun-filled summer at the Whiteshell Campus of the Deep River Science Academy? The Academy, a non-profit private school, provides scientifically-inclined high-school students with a unique opportunity to experience an enriched, hands-on science program in a scientific setting in Pinawa. Students are part of a national program, and work with professional scientists on front-line research projects. Many of these projects, in the environmental sciences and energy-production areas, are conducted at AECL's Whiteshell Laboratories. Additional projects are carried out in collaboration with other research partners, such as the Model Forest and Manitoba Hydro. Upon successful completion of the six-week program, including the presentation of a written and oral scientific report to a group of professional scientists, students receive two credits toward their high-school diploma. But it's not all work and no play! For the entire six weeks, under adult supervision, students live in residence with twenty like-minded students from across Canada. They enjoy a jam-packed recreational program which includes tennis, rowing, water-skiing, sight-seeing and the odd movie and barbeque night.

If you know someone who would enjoy a summer like this, call Mrs. Louise Young, Principal, at (204) 753-2469 or 1-800-760-DRSA for more information. □

# Continuing Competence – Where Do We Stand?

*By: S.M. Matile, P.Eng.*

APEM, at its October, 1995 Annual General Meeting, introduced a proposal to implement the mandatory reporting of continuing education/professional development activities. A special meeting will be convened, soon, to allow all members of this Association input to the implementation process.

But what will be the benefit of the mandatory reporting of educational activities, particularly the reporting that no education has taken place? Have we gone far enough? Have we gone **too** far?

What, exactly, **should** this Association be doing in this area? Relying on its members and their Code of Ethics which requires them to maintain currency and competence in their areas of expertise? Assisting its members in maintaining their competence? Or assuring the public of the continuing competence of members of this profession by conducting performance reviews of practising engineers?

These questions were posed, recently, to representatives of all of the engineering associations in Canada. The consensus? Practice reviews should be implemented by all Associations to demonstrate to the public that the engineering profession is serious about requiring its members to maintain their competence.

Currently, only the engineering associations in Quebec and British Columbia have operational practice review systems in place. (And the results for B.C. so far, after a year of operation, have been quite disturbing: ten percent of the engineers reviewed by their peers were referred to the Association's Discipline Committee!) Alberta has developed a peer-review program, but has not yet implemented it. And the rest of us? We all place complete faith in our members' adherence to our various Codes of Ethics, but we're all seriously contemplating the issue. The association in New Brunswick has developed a program and a database for tracking its members' professional development activities (of which work experience is a component), and several Associations have surveyed their members regarding this issue.

The Canadian Council of Professional Engineers (CCPE), the national "umbrella" organization of the provincial associations, is now in the exploratory stages of developing a national guideline for the Associations regarding the continuing competence of engineers. Although it will still be some time in coming, indications are that CCPE will be recommending the mandatory demonstration of continuing competence – probably through practice reviews.

Stay tuned – and stay current! □

# Council Reports

## Tuesday, January 9, 1996

*By: B.A. Dobran, P.Eng.*

### AT WHICH COUNCIL HEARS A PRESENTATION REGARDING THE DONALD W. CRAIK ENGINEERING LIBRARY

At 12:30 p.m., President Cathy Stewart called the Council meeting to order. After approving the agenda for the meeting and adopting the minutes of the December 12, 1995 Council meeting, Council considered a memo from Executive Director and Registrar, Dave Ennis. Council agreed that committee chairs be invited to attend the CCPE Visionary Session on Monday, February 12, 1996.

Next, Council received the minutes of the Executive Committee meeting of December 20, 1995 and ratified the actions contained therein. Council then considered the financial statement for November, 1995. Dave Ennis provided information on the current status of income and expenses. The financial statement was approved as presented. Council received the Report from the Registration Board dated December 21, 1995.

Council then considered a memo from Dave Ennis regarding the APEM premises relocation. Mr. Ennis noted that the Premises Committee will be meeting on January 25 and that the Executive Committee will meet on January 31 to develop a recommendation. Cathy Stewart invited Councillors to view the Royal Trust second-floor location after the Council meeting.

Next, President Stewart welcomed the University of Manitoba Dean of Engineering, Dr. Donald Shields and the Head Librarian of the Donald W. Craik Library, Nòrma Godavari. Dean Shields discussed how the APEM Council and the University of Manitoba could work together to strengthen the Engineering Library to meet the needs of the engineering community. He advised Council of his Faculty's proposals for funding through the University under a new $1,000,000 provincial government grant program. Council considered the proposals outlined by Dean Shields, making note of the Association's mandate. Council decided that a letter be sent by Cathy Stewart to the Manitoba Minister of Education and Training, supporting, in principle, the "Re-Engineering Information Access" proposal presented to Council. An article could be prepared by the Faculty of Engineering and published in the MPE to inform the membership of the issue and how the Engineering Library is seeking support from the APEM. It was decided that the University Liaison Committee be requested to work with the Faculty of Engineering at the University of Manitoba to help it define a business case for the support of the Engineering Library. □

## Tuesday, February 13, 1996

*By: C.P. Gray, P.Eng.*

### AT WHICH COUNCIL SEEKS MEMBERS' OPINIONS ON THE ENGINEER'S ROLE IN THE FUTURE, AND ASSISTS THE FACULTY OF ENGINEERING LIBRARY COMMITTEE

President Cathy Stewart called the meeting to order with all but two councillors present.

In regards to the new APEM premises, Executive Director Dave Ennis gave a presentation on the status of several office locations and reviewed the criteria for the selection process. Council authorized the Executive Committee to make the final decision for the new premises and to execute a lease agreement.

Council adopted a "Policy Regarding Confidentiality of References" to be incorporated into the Experience Review Board's operations manual. The policy states "No person shall have access to such information other than those directly involved with evaluating the work experience credentials of the applicant ..."

Council agreed to release the "Report of the Building Envelope", acknowledging contributions from members of the Manitoba Association of Architects (MAA). However, the report will not be issued as a joint report of the MAA and APEM.

Mr. Ahmed Bakhtari, an agricultural engineer, is facing the death penalty in his native Iran. Mr. Bakhtari has been convicted by the Islamic Revolutionary Court of "armed bank robbery, illegal possession of arms and munitions and involvement in an aborted assassination of a clergyman ...". His sentence was later commuted to life imprisonment; however, Mr. Bakhtari was retried by the Supreme Court that upheld the death sentence. Amnesty International states "the trial was reportedly unfair as he was said not to have access to a lawyer". As well, Amnesty International has concerns Mr. Bakhtari may have been sentenced to death for his affiliation with an illegal political opposition group. Colleagues of Mr. Bakhtari have written to the Association urging APEM to support his case. Council unanimously supported a motion to write a letter to Mr. Lloyd Axworthy, Minister of Foreign Affairs, asking for assurances that the Government of Canada has taken all possible action that Mr. Bakhtari's case is dealt with in a just manner.

Cathy Stewart reported on the recent CCPE Visioning Task Force meeting. Council agreed that members' opinions on the vision for the profession should be sought. It is intended to provide a draft of the vision statement in the April, 1996 mailing and await members' responses.

In response to the recent scaffolding collapse at the Health Sciences Centre, the Manitoba Department of Labour has made several recommendations, including the recommendation that Workplace, Safety and Health seek APEM's advice on appropriate information for drawings of temporary structures. When the request is received, Council will refer the preparation of the recommendation to the Safety Committee.

The Faculty of Engineering at the University of Manitoba is seeking funding to make the Donald W. Craik Engineering Library more accessible to the general public and specifically to the Manitoba engineering community through development of an electronic link-up, among other means. Council has written a letter to the Minister of Education and Training in support of the Faculty's campaign. As well, Council agreed to facilitate awareness of the Faculty's program by publishing notices in the MPE. Council agreed that providing direct funding was not within APEM's mandate but agreed to assist with the Faculty via the University Liaison Committee in developing a business plan. □

## The Science and Technology Centre of Ukraine

*Continued from page 5*

premises were officially opened in December 1995.

The Board of Directors reviewed the first 30 projects received and approved financing for 12 of those projects to a total value of $1.6 million US. All the abstracts of the projects, the answers to most questions asked, and the results of the Board of Directors meeting, are all on the Internet.

The hitches in the STCU efforts, so far, lie in the slow clearing of projects from Security, which in turn limit the important intent of putting substantial funding into the Ukrainian research community. The operating environment is still problematic for the STCU in that it is being treated as a Resident Entity and not as an intergovernment organization. This means that the agreed-upon tax-exempt status of the STCU has not been recognized and local banking regulations, as a result, make it difficult to disburse funds for the projects and for staff salaries in hard currency as originally agreed by the government. However, progress is being made.

In Canada, the response to the project proposals from the business and academic communities has been most encouraging. Researchers and business people recognize the potential for significant scientific and commercial partnerships. Abstracts of current proposals may be viewed on the Internet at:
http://www.cam.org/~ukugmtl/stcu.html

There are many potentially profitable opportunities here, and more opportunities will present themselves as further abstracts are added as proposals are cleared from Ukraine. □

## Recognition Night '96

*Continued from page 1*

Next, Dr. Chapman presented the 1996 Certificate of Engineering Achievement Award to DBF Ltd. and the City of Winnipeg, for the concept, design and implementation of the Charleswood Bridge Project. The first Build, Own, Operate and Transfer project at a municipal level in Canada, it consists of two kilometres of roadwork and twin 152-metre two-lane bridge structures across the Assiniboine River, connecting the areas of Charleswood and St. James.

The Project's success can be largely attributed to the City of Winnipeg's leadership in adopting the Public/Private Partnership process and its rapid decision-making throughout. Following a three-step procurement program consisting of Qualifications, Value Engineering and Proposal submissions, the City awarded a contract for the design, building and financing of the project to DBF Ltd. on September 20, 1994. Detailed engineering was performed by Wardrop Engineering as part of the DBF team, and was carried out sequentially on a design-to-construct basis. This was possible through the development of a close contractor/engineering-consultant relationship which was critical to the delivery of the project throughout the many stages. Construction began on November 14, 1994, and was completed on October 24, 1995 – a year shorter than conventional project-delivery.

The project included many technical innovations, such as steel-jacketed caissons for the pier substructure; flexible asphalt pavement; 40-metre-long precast, prestressed concrete girders (the longest span in Manitoba); and fibre-reinforced silica-fume concrete decking. DBF Ltd. owns the bridge structures and part of the roadworks, and will permit the City of Winnipeg exclusive use of the facility as a public thoroughfare.

Representatives of the City of Winnipeg, DBF Ltd., and Wardrop Engineering were on hand to accept the award, and to acknowledge the many others who had contributed to the success of the project.

Vice-President Symonds closed the ceremonies by congratulating the award-winners and the newly registered members in attendance, and invited everyone to learn more about the honourees by reading the displays and socializing. □

*Vice-President Mal Symonds (l) with 1995-96 new members.*

# Winnipeg Hosts the 1996 Great Northern Concrete Toboggan Race

*By: A. Magalhaes – 4th year Civil Engineering student*

*Scott Bezak, Holly Wirth, John Militano, Kathy Klymchuk, Darren Eddie, Justin Cheang, Kenn Lew and Steve Biswanger display their concrete toboggan.*

The Great Northern Concrete Toboggan Race was held in Winnipeg this year as part of the Winter Cities conference. The race gathered close to 350 engineering students from across Canada and the USA. These students were entertained and entertainers at various activities around Winnipeg during the weekend of February 8-11, 1996.

The teams arrived Thursday in full force and high spirits. They were bused to the hockey game to watch our home town Jets defeat the Ottawa Senators. The teams showed up in full costume and made their presence well known; one of the teams got the zamboni driver to sport their costume and carry their team banner as he cleaned the ice!

Friday was the technical exhibition held at the Transcona Country Club. Each team did an incredible job of organizing their displays, the bat cave was even transposed to Transcona!!! The teams' toboggans were weighed and judged by a panel of distinguished judges: Prof. G. Morris, Prof. A. Thornton-Trump, and Mr. Don Spangelo who was the last Manitoban to win the concrete toboggan race and return the event back to Winnipeg in 1981!

Saturday was the big race day at Kilcona Park. The weather co-operated as a nice fresh layer of slick snow was dumped on the slopes overnight.

*Continued on page 10*

# National Engineering Week '96

## Straw Tower Contest, 1996

*By: D. Dankewich, EIT*

In promoting National Engineering Week '96, APEM ran, for the first time, a Straw Tower Contest. The Straw Tower Contest was held in conjunction with the Spaghetti Bridge Contest, with both activities running concurrently at the St. Vital shopping center on Saturday, March 2, 1996. The main goal of the activity was good clean fun for all ages, and that is exactly how it was received. Alan Pollard, P.Eng. of MTS, through his connections, provided a generous array of prizes to be distributed to all participants. Thirty-seven groups, each consisting of one to four members, were registered, for a total of 61 participants. Participants consisted mainly of junior high students, from as far away as the Garden City area. One father, with his two year old son, spent the better part of a half-hour working together. A mother-and-teenage-daughter team, produced a tower that any structural engineer would be proud of.

This activity should be allowed to grow in scale in subsequent years, while keeping it accessible for all ages.

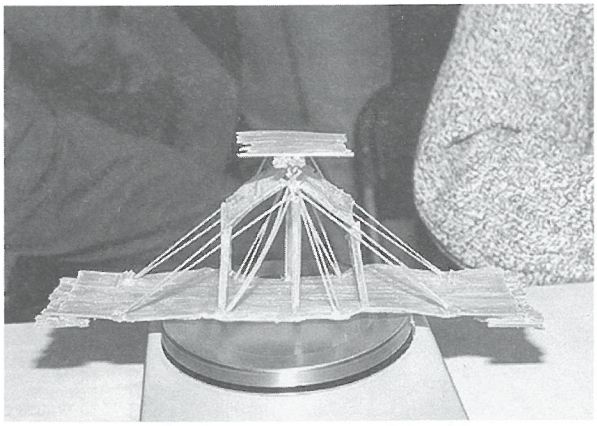
Special thanks to the following EITs who gave of their time to help orchestrate this worthwhile activity: Thanh To, Craig Perrett, David Minor, Corinne Wotton, Wayne Pitura, and Darin Schuster. □

## Spaghetti Bridge Contest

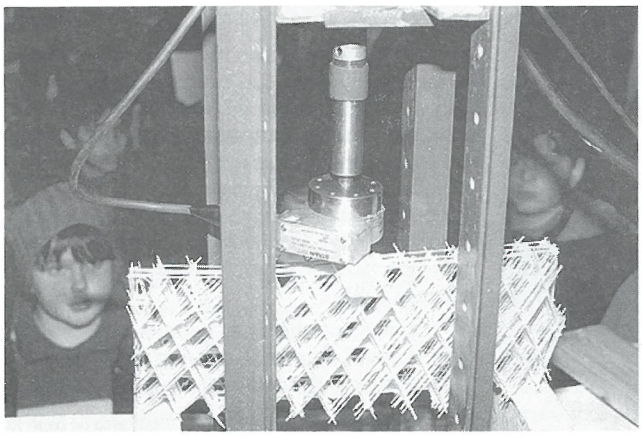
*By: S.A. Mailey, P.Eng.*

To start off National Engineering Week, APEM held its second Annual Spaghetti Bridge Contest on Saturday, March 2 at St. Vital Centre. School children from across the province were invited to compete in the contest.

The purpose of the event was to expose children to the field of engineering. There were 27 entries from students in grades one to nine. The rules for the contest were to take 300 grams of regular spaghetti and 125ml of white glue and build a bridge to span an opening of 30 cm.



There were several excellent bridges, with the grand prize (HP Scientific Calculator, SimTower Software, and Portable CD Player) being awarded to Ryan Kleinsasser, Grade 6, Concord School with his bridge supporting an impressive test-load of 51.7 pounds.



The bridges were loaded to failure in a test frame, loaned from the University of Manitoba, and a load cell, loaned from Industrial Technology Centre. The testing was conducted by engineers Don Spangelo, Glenn Penner and Shane Mailey. Thanks to the following EITs for volunteering to help run the contest: Larry Halayko, Krista Gelmich, Tim Kirkham, Paul Kochan, Cameron Zealand and Srinivasan Rangarajan. □

## 1996 Great Northern Concrete Toboggan Race

*Continued from page 9*

The teams were well informed of what Manitoba "COLD" was and they all came well prepared, except for the Alberta Highlanders who came in kilts and wore only their kilts during the race!!! The race course was in good condition and the fastest recorded time was 14:39 seconds by the team from Ecole Polytechnique.

The awards ceremony was held at the Transcona Country Club, which provided an incredible buffet accompanied by a three piece band playing dinner music. Awards were presented according to the judges' results and the teams' performance at the race hill. The following were some of the bigger awards handed out: Best Team Spirit, the Highlanders, University of Alberta; Third Place Overall, Sharktic Toboggan, University of Waterloo; Second Place Overall, Burn, Carleton University; First Place Overall, Polygaguk, Ecole Polytechnique.

Next year's event will be held in the Nation's Capital, hosted by Carleton University. This year's event was a success and it would not have been possible without the help from our sponsors and all the volunteers involved in the organization. Congratulations go to Colleen Lodge, who was the chief organizer, and to the entire City of Winnipeg who was such a good host and showed over 350 engineers how to have a great time! □

# News From Other Associations

*By: L.Y. Ganetsky, P.Eng.*

## Alberta

### Around the World in Eighteen Days

Engineering techniques are lifting the sport of ballooning to ever-higher levels. In November, the leading balloon-manufacturer in the United Kingdom plans to soar to a new aviation record thanks, in part, to engineering technology borrowed from other industries.

The founder of Lindstrand Balloons, Per Lindstrand, and tycoon Richard Branson are scheduled to attempt the first around-the-world balloon trip this fall. The flight is expected to take 18 days.

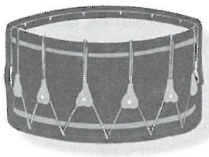
The envelope is being manufactured from a laminate of high-tensile woven nylon, sandwiched between two layers of Melinex. The balloon will also incorporate such innovations as flame-retardant shields and "windows" that allow pilots to see if there is any danger above or beside them.

## Saskatchewan

### Magnesium Design Contest

University of Saskatchewan Mechanical Engineering student Robert Kinnaird won first prize in this year's International Magnesium Association Student Design Contest. The first prize, which comes with a $2,000 cheque, was awarded to Rob for his design of a magnesium snare-drum. The use of magnesium for some parts of the drum is shown to result in refinement of the musical qualities of the instrument.

This is the ninth year of the contest which is supported by North American magnesium producers. The contest is open to undergraduate students in the United States and Canada. University of Saskatchewan Mechanical Engineering Students have dominated the list of prize-winners under the guidance of Professor Spiro Yannacopoulos. Usually between 100 and 200 submissions are received by the International Magnesium Association: however, only 28 were received this year.



## Ontario

### Easy to Add P.Eng. to Credit Card

Proud of your P.Eng.? Want to show the world? Why not include the designation on your credit card? According to Visa, Mastercard and American Express (the three companies contacted), the process is fairly simple:

1. Send a letter of request to the regional office of the chosen credit card company (the address should appear on your monthly billing.)
2. Include a copy of how the designation is used after the name (e.g. John Doe, P.Eng.) and proof of entitlement to use the designation (e.g. copy of your Licence certificate or membership card).


The companies say the letters of request and proof of entitlement are kept on file for security purposes. Only Visa said is would not be able to include the periods in P.Eng.

# The Almost-Student-Night Dinner

*By: M.G. Britton, P.Eng.*

The annual Student Night Dinner was scheduled for the evening of February 22nd, this year. Unfortunately, it turned out to be one of those parties to which no one came. Faced with a potentially huge bill, and no one to pay it, the decision was made to cancel the event and minimize our losses. Obviously, there were a few disappointed people.

This event has been held each spring for many years. The technical societies have taken turns doing the ground work, and we, the individual professionals, have paid the bills. Students are matched up with "real" engineers to enjoy a good meal and an entertaining speaker, and to discuss life after university. It has been an event unique to Manitoba and to engineering. But this year, for whatever reason, there simply weren't enough professionals to pay the bills.

Fear not, however, because the students refuse to let this tradition die. **We have rescheduled the dinner for April 9th**, and created a telephone tree to solicit sponsors. The soon-to-be graduates look forward to meeting people in the profession. And we in the profession should welcome them to our world. □

# Salary Survey "Top Ten"

*By: E.G. Parker, P.Eng., Chair, Salary Committee*

Roll-backs, right-sizing, information highways, out-sourcing, and NAFTA; how are all these strategies impacting salaries today? Once again, APEM is conducting our salary survey to determine compensation levels for Professional Engineers in Manitoba. What graduating class has the highest salaries, what industries and job functions are paying more, and what were the salary increases in Manitoba in 1995? These are some of the questions answered in our Salary Survey Report. Last year we compared Manitoba Engineering salaries to the PEO information, this year we will be expanding to include comparisons to other provinces. Please take a few minutes to complete your questionnaire enclosed in this mailing.

Based on our detailed salary research from our home office, here are the top ten reasons why lawyers have higher salaries than engineers today:

10. Lawyers are led by Attorneys General.
9. Lawyers' salaries are never judged.
8. Civil suits cost more than business suits.
7. Lawyers are more appealing than engineers.
6. Dogbert provides all legal advice to engineers.
5. The last technical innovation for legal service was the printing press.
4. Lawyers have their own "joke" books.
3. Crime pays.
2. A lawyer's salary is a moot point.

And the number one reason why lawyers have higher salaries than engineers today is:

1. They have higher courts. □

NEWS RELEASE

# CCPE Insurance News

On January 1, 1996, North American Life Assurance Company, underwriter of the CCPE-endorsed Life Insurance & RRSP programs owned by many engineers for their protection and savings needs, joined forces with Manulife Financial, to create one company. Members' current coverage, investments and benefits which will continue as before. □

## CCPE Chair of the Council's Message

*Continued from page 4*

the shifting emphasis with the suggestion of continual re-evaluation and re-commitment in a changing role.

So where do we go from here? The exercise, to date, has occurred largely at the national level to ensure that the emerging vision would reflect a national perspective. Yet it was recognized from the outset that acceptance and ownership by engineers across the country is essential if vision-renewal is the intended outcome. Therefore, the next step in the process is for the draft vision to be discussed and accepted by constituent association Councils for subsequent promulgation within each jurisdiction. To facilitate this, a consultation team, consisting of Bill Fraser, P.Eng., Chair of the Vision Task Force, Daniel Verreault, P.Eng., President of CCPE, and me, Chair of the Council, has requested an opportunity to meet with each constituent association during the last half of February or March. The draft vision, which is now in preparation, along with supporting documentation, will be circulated by the end of January. The purpose of these meetings is to provide an opportunity to review and discuss the draft vision and its basic elements, to gain acceptance and support for the vision so that it can be approved at the CCPE Annual Meeting in May, 1996.

In addition to vision definition, participants in the November workshop also identified the following major strategic issues facing the profession.

- Maintenance and strengthening of a self-regulatory framework to ensure protection of the public interest and safety. The framework should promote individual accountability for engineering decisions and include clear and adaptive definitions, publicly robust admissions criteria, and strong discipline and enforcement provisions. The framework must incorporate mechanisms to ensure open and transparent accountability to the public and the profession. There is also a need for strong national consistency of standards, provisions and practices.
- Establishment of a national framework for administering continuing competence/education that includes periodic mandatory reporting, random audit and/or peer review of professional development activities, and the power to revoke or renew licences.
- Enhancement of national mobility through the national transportability of credentials, records, and disciplinary actions and/or the establishment of a Canadian P.Eng.
- Enhancement of the 'formation of the engineer' by establishing strong linkages between education and the profession throughout a career, from university enrollment through mature practice. More emphasis is to be placed on non-technical aspects such as people skills, social sciences, economic studies, commerce, risk analysis, and development of judgement.
- Establishment of a strong, national voice for public advocacy, education, and enhancement of public awareness of the role of the profession.
- Strengthening of CCPE by authorizing it to make decisions and take action on certain national and international issues.

Space does not permit elaboration to capture all dimensions of these strategic issues. However, they are of critical importance to the profession and to the constituent associations. Consequently, a more complete description will be included in preparation for the meetings with the constituent associations, and their input will be sought on these matters.

The Executive Committee of CCPE is fully supportive of the vision process: there is confidence in the progress to date and excitement in the expected fruits of the process. The vision and the strategic issues will assist in prioritizing CCPE's agenda and result in desirable organizational-governance modifications. Above all else, however, a clearly enunciated vision to which rank-and-file engineers subscribe will enhance recognition and respect from others, and foster pride and dignity within the profession. □

# Manitoba Marathon Relay '96

*By: M.D. Vanderpont, P.Eng.*

The Manitoba Marathon will be held on Father's Day, Sunday, June 16, 1996. Once again, your Sports Committee will be assembling teams of APEM members to participate in the Corporate Relay. It is a great motivator to get in shape after that long, hard winter.

This is the story:

- Teams consist of 5 runners. You can enter as teams, groups or individuals. The Sports Committee will put together the teams.
- The lengths of running legs range from 4.5 to 5.7 miles.
- The cost is approximately $28 per runner. Proceeds go to the Manitoba Association for Community Living, which assists Manitobans with disabilities.
- Exclusive APEM track tops are available.
- The pre-marathon spaghetti-fest is included.


We have been supporting the Manitoba Marathon Corporate Relay for several years, now. A list of runners, which is incomplete, full of errors and presented in no particular order, includes:

| | | | |
|---|---|---|---|
| Todd Smith | Lance Vigfusson | Alan Aftanas | Bob Partridge |
| Dave Whitmore | Mike DeWiele | Rick Shand | Jim Bailie |
| Steve Crockett | Jim Terris | Tom Price | Dave Ennis |
| Harry Lobo | Tim Starodub | Bill Penny | Ed Ryczkowski |
| Myron Paryniuk | Tracey McLeod | Steve Tormey | Darren Durant |
| Ken Moore | Andy Nagy | Kas Zurek | Tony Victor |
| Julien Lavergne | Elliot Garfinkel | Ark Tsisserev | Roger Sawatzky |
| Shirley Matile | Rob Blanchard | Alan Forbes | Henri Carriere |
| Ad Zerbin | Kathy Pratt | Mark Plett | Keith Walker |
| John McFarland | Robert McDowall | Scott Evanson | Garry Bistyak |
| Warren Cook | Frank Penner | Blake Mills | myself |

If you try it, you'll like it!. Ask almost any of the above! If you are at all interested, please call me, Murray Vanderpont, at 453-4903 (office) or 255-0915 (home) for more information and encouragement.

I look forward to hearing from you. □

# Coming Event

### The Canadian Vocational Association Annual Conference

**"Education That Works"**

Holiday Inn Crowne Plaza,
Winnipeg, Manitoba
October 17 – 19, 1996

Hosted by South Winnipeg Technical Centre and the Manitoba Association of School Trustees.

Call 204-989-6524 or fax 204-488-4251.

# Position Wanted

Civil Engineering graduate looking for employment relative to the field of engineering. Currently enrolled with APEM as an EIT. Experience includes inspection of new pipe work, surveying, Auto Cad, and working knowledge with different computer programs and computer languages. For more information please call Tony, any time at (204) 667-6822.