CLIMATE CHANGE, 
APPLIED SCIENCE AND A 
SUSTAINABLE FUTURE

Up on the roof 
Green Roofing 
gains momentum
I’m good at numbers but this one stumped me.

There are a lot of common ideas out there on finding out how much insurance you should have. Some say multiply your annual salary by seven or eight. Some say calculate income from now until retirement age. Others simply cover debts.

Here’s an easy formula to determine a smart life insurance amount: \( \text{Short-term needs + long-term needs - resources} = \text{how much coverage you may need} \).

The Engineers Canada-sponsored Term Life Plan has a Needs Calculator that’s even easier to use. It helps you estimate what your family might need in the future based on what you own, what you owe and what you spend today. It sure helped me — and 49,000 other engineering and technology professionals — decide on the right coverage amount for my family.

Try it out today. You’ve got nothing to lose… except for maybe a few misconceptions.
March/April 2010

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OACETT reviewing by-laws to improve governance

The governance of OACETT is not unlike an iceberg; much of it is invisible to the eye, lying beneath the surface. How a volunteer-driven association governs itself is critical, not only in terms of adhering to legal requirements but also of ensuring that an appropriate balance is maintained between the members, who should always have a say on key issues, and the governing Council, which has the legal obligation to manage OACETT’s affairs in the best interests of the Association and in the furthering of its objectives.

Best practice suggests that not-for-profit organizations such as OACETT should review their governance documents and structures every few years. This kind of comprehensive review ensures that those documents and structures remain consistent with applicable law; that they reflect the organization’s actual practices as well as industry best practice; and, perhaps most importantly, that they continue to effectively serve the organization’s needs as those needs evolve over time.

In the past year, Council initiated a review of OACETT’s governance documents and structures, with a focus on our By-law 18. Martine Band, our Public Representative on Council and a lawyer by vocation, graciously agreed to work with a task group of Council members and staff, along with OACETT’s external legal advisors, to develop recommendations for improving how we govern ourselves. The recommendations will be considered by Council as a whole, and the membership will be called to vote on a number of proposed changes to the By-law at the Annual General Meeting (AGM) in June.

The governance review covers both policy and housekeeping matters. A good example of a policy issue that is under consideration is the establishment of term limits for elected Council members among possible others. This not only encourages good succession planning, but also creates an opportunity for new people to bring fresh ideas to the table and to participate in steering the Association through the challenges of the day.

By-law 18 has grown over time, and as a result covers a variety of matters that, while important, are not core governance issues. We will therefore be considering moving certain elements out of the By-law and into policy documents that, on a going-forward basis, can be updated by Council when the need arises. Changes of this kind are designed in large part to allow your elected representatives to fulfil their mandates and responsibilities more efficiently.

In terms of housekeeping, we are striving to make our governance documents more user-friendly by modernizing some of the language, by doing some reorganization and by filling gaps and reducing some duplication. Through all of this, we are of course remaining faithful to the OACETT Act, which sets out our objectives and addresses some essential governance issues. We are also keeping pace with changes in corporate law and corporate governance conventions.

We will be working hard to ensure that the recommendations that flow out of the governance review are communicated to the members in a clear and effective way. The Council-approved recommendations will be circulated in advance of the AGM, and I encourage each of you to give them careful consideration.

Sincerely,

David Saunders, B.E.S., C.E.T.
President

The Ontario Association of Certified Engineering Technicians and Technologists, a self-governing, non-profit organization, maintains standards of excellence in the practice of engineering and applied-science technology in Ontario. Founded in 1957, the Association became provincially legislated in 1984, and has statutory powers and responsibilities. OACETT is a constituent member of a national organization, the Canadian Council of Technicians and Technologists.
from the editor
BY MELISSA THURLOW

Volunteers show passion for the field

The first meeting of the Association’s newly formed Women in Technology Committee took place from March 12-13. Chaired by PASB Councillor Sharon Reid, C.Tech., and with representation from across the province, this committee will be looking at ways to attract more women to the field of engineering technology.

I attended the meeting and was witness to a huge amount of enthusiasm and passion for the field of engineering technology. It is always great to see members volunteering their time to advance the field. In this particular case, it was specific to women in the field, but it was just another example of the commitment that OACETT’s volunteers have for their association and for engineering technology. Stay tuned for initiatives from the committee and feel free to forward your ideas to Sharon Reid, C.Tech., at EasternRegionalCouncillor@oacett.org.

In this issue of The Ontario Technologist, two certified OACETT members take us through the growing practice of green roofing. Already very popular in Europe, this environmentally-friendly and cost-saving practice has been growing in popularity in Canada. This is one example of OACETT members whose work is bringing about positive change to the environment.

Our other feature discusses sustainability and challenges OACETT members to look for opportunities to make a positive difference through their training in engineering and applied science technology.

This issue debuts a new column, Registration Corner. A lot of changes are and will be occurring within the procedures of the Institute of Engineering Technology of Ontario (IETO) over the next year and this column will be the place for you to find out what is happening. Be sure to read this issue’s column, especially if you are not yet certified or are an A.Sc.T.

Feel free to contact me with your story ideas and feedback at editor@oacett.org or 416-621-9621, Ext. 228.
## Upcoming Course Schedule - Mississauga 2010

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<td>Structural Design for Lateral Loads and Stability</td>
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<td>Electrical Power Distribution Systems for Industrial Plants</td>
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<td>Design, Maintenance and Inspection of Fire Sprinkler Systems</td>
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<td>Energy Management for Commercial and Institutional Buildings</td>
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### Online Courses
EPIC offers online courses in the following areas: Information Technology, Business and Management, and Engineering. For more information, please visit [www.epic-edu.com/OnlineCourses](http://www.epic-edu.com/OnlineCourses)

### Onsite Programs
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Celebrating 25, 40 and 50 years of membership!

This listing represents those who have reached their milestone between December 22, 2009 and February 19, 2010.

25-year members
Abu Ahmed
Enzo Antinucci, C.E.T.
Mark Baniuk, C.E.T.
Benjamin Barkey, C.E.T.
James Bartley, C.E.T.
Douglas Bell
Jennifer Birch-Schofield, C.E.T.
Donald Boissonneault, C.E.T.
Mickey Caldwell, C.E.T.
Nevio Cangiotti, C.E.T.
Edgar Caswell, C.E.T.
Guy Cayer, C.E.T.
Dominic Chan, C.E.T.
Satvinder Chona, C.E.T.
Bruce Coker, C.E.T.
James Colgrave, C.E.T.
William Corduff, C.E.T.
Terrance Corry
Anthony Crecca, C.E.T.
Francis Davis
Robert Effinger, C.E.T.
Jose Escudero
Robert Everest, C.E.T.
Michael Fenuta, C.E.T.
Mark Finley, C.Tech.
Michael Gauci, C.E.T.
Michael Godin, C.E.T.
John Griffith, C.E.T.
Timothy Grub, C.E.T.
Ajay Gupta, C.Tech.
Richard Haggart, C.E.T.
Richard Hart, C.E.T.
William Heaton
Dirk Heine, C.E.T.
Andreas Hofmann, C.E.T.
Timothy Hong
James Houghton, C.E.T.
David Hurst, C.E.T.
Craig Jewett, C.E.T.
Michael Johnson
Denis Jones
Glenn Jones, C.E.T.
Steven Keenan, C.E.T.
Wesley Krause
Mark La Fleche
Michael Lamb, C.E.T.

40-year members
Moinuddin Ahmed, C.E.T.
Charles Atkinson, C.E.T.
Henry Baker, C.E.T.
Donald Barr, C.E.T.
Guy Barrett, C.E.T.
Donald Batstone, C.E.T.
John Bea, C.E.T.
R S Benedetti, C.E.T.
Daniel MacIntyre, C.E.T.
Steve MacKay, C.E.T.
John Marley, C.E.T.
Everton Martin, C.Tech.
Jonathan Maybury, C.E.T.
Terry McCann, C.E.T.
Robert Mercer, C.E.T.
John Middleton, C.Tech.
James Miller, C.E.T.
Alberto Nestico, C.E.T.
Brian O’Brien, C.E.T.
Aldo Pacitti
Andrew Pearce, C.E.T.
Steven Polec, C.E.T.
Brian Pound, C.E.T.
Roy Quan
Robert Rayfuse, C.E.T.
Kevin Riley, C.E.T.
Dale Robinson, C.E.T.
Larry Rolleston, C.E.T.
Antonio Rostirolla, C.E.T.
Jeffrey Runnalls, C.E.T.
Norman Sandberg, C.E.T.
James Sarcevich, C.E.T.
Michael Shannon, C.E.T.
Richard Short, C.E.T.
Allan Smith, C.E.T.
Robert St. Amour
Marvin Switzer, C.E.T.
Henry Taekema, C.E.T.
John Tatasciore, C.E.T.
Andrew Taylor, C.E.T.
Blair Taylor, C.E.T.
Pierre Tremblay
David Truax, C.E.T.
Brian Wong, C.E.T.
Albert Young

50-year members
Visvaldis Brumelis, C.E.T.
John Brunton, C.E.T.
John Caicco, C.E.T.
Robert Cheeseman, C.E.T.
Catharinus Dirksen, C.E.T.
Joseph Finn, C.E.T.
Gordon Foy, C.E.T.
Reinhold Hall, C.E.T.
Florent Heroux, C.E.T.
William Howe, C.E.T.
Ingvar Kattemaa, C.E.T.
Eugene Knaitner, C.E.T.
Russell Lake, C.E.T.
Lawrence Lyons, C.E.T.
Richard Maki, C.E.T.
Edward Marady, C.E.T.
Robert Owen, C.E.T.
Ernest Russ, C.E.T.
Ronald Schaubel, C.E.T.
John Siu, C.E.T.
John Stacey, C.E.T.
Edward Szymans, C.E.T.
Robinson Taylor, C.E.T.
Joel Truckenbrodt, C.E.T.
Tom Vidak, C.E.T.
Guenther Weber, C.E.T.
Lionel Wedgbury, C.E.T.
ACETT first issued the certified member identification stamp in 1997 to promote recognition of qualified technicians and technologists and highlight their academic training, skills and work experience.

“I see the membership stamp as a very important tool in the recognition of the certified engineering and applied science technician and technologist members of OACETT,” said Angelo Innocente, who was OACETT’s president when the stamp was created.

Members who are registered in one of the following member categories are eligible to buy a stamp:
• Certificated Technician
• Applied Science Technologist
• Certificated Engineering Technician (if certificated prior to 1992)
• Certificated Engineering Technician – Senior (if certificated prior to 1992)
• Certificated Engineering Technologist

Rules governing the stamp include:
• The stamp should only be used as identification;
• It should be used in compliance with the OACETT code of ethics, bylaws, policies, or resolutions of the association;
• It should be used in an ethical and professional manner;
• The owner of the stamp must maintain membership in OACETT;
• Only the stamp authorized by OACETT may be used. No other stamp or identifying mark which includes the name of the association or a registered logo/emblem of the association may be used. Similarly, no variation of the stamp authorized by OACETT may be used;
• The use of the stamp is valid only in the Province of Ontario. The association does recommend that members who use stamps buy liability insurance although it isn’t mandatory. This is because when professionals stamp their work, the public perceives it as a guarantee of the work.

When to apply the stamp
The stamp should be applied in black ink in a clear and legible manner. (An electronic stamp is also available). Members may stamp any preliminary, draft or final drawings/documents they have prepared or supervised. The work must directly relate to the members’ discipline and level of registration with the association, and fall within the member’s engineering/applied science expertise.

Since the stamp is for identification only and not a professional engineering or architect seal, users must ensure that when required, the seal of a professional engineer, architect, land surveyor, or other licensed practitioner is also applied. The OACETT stamp does not entitle the member to accept responsibility for technical expertise that is restricted to a licensed practitioner.

Where work is required to be completed under the direct supervision of a registered professional, the responsibility for the work lies with that licensed practitioner whose professional stamp/seal must accompany that of the member. The member acknowledges that under “common law,” he/she may also be held responsible for the work completed, even though it is sealed by the licensed practitioner. Once work is stamped, the member should sign and date the work.

Stamp the following documents:
• Preliminary and final technical drawings and reports. (Preliminary drawings and reports should be clearly marked with a statement to note their preliminary nature.)
• Lab analyses
• Maps
• Specifications
• Design and field notes
• Official field notes
• Official estimates
• Plans
• Appraisals
• Permits

If you’re not sure what type of work you are supposed to stamp or what a registered professional should stamp, refer to the pertinent code.

In some instances, the industry practice is to stamp original drawings; in others, only copies are stamped. The member...
Members on the move

Anand Kumar Chelliah, C.E.T., rsci, recently became a Transportation Technician in the traffic division at the Ministry of Transportation in the eastern region. Chelliah collects and analyzes traffic volume and collision data to replace road signs and signals. He also identifies safety hazards, studies collision histories and provides recommendations when transportation programs are postponed by planning departments. Chelliah is an internationally-educated professional who has earned his certified engineering technologist and road construction designation over the past three years.

Marcel Couture, A.Sc.T., Tech. OAAAS, has recently started working as a Building Manager at Union Gas Ltd. Couture is responsible for the day-to-day operations of several buildings in the Chatham-Windsor corridor. Before he was hired on at Union Gas, he was the Co-ordinator of Sites and Design at Lambton Kent District School Board for nine years.

Mark de Koning, C.Tech., was recently hired as Senior Manager, Quality Management Systems at Sandvine. In this role he is responsible for the implementation and management of corporate-wide quality management systems. Previously, de Koning was employed as Quality Systems Manager at Gennum Corp.

Adele Figliomeni, C.E.T., has recently joined Stantec Consulting Ltd. as a Designer in the Urban Land division where she designs subdivisions using civil 3D software. Figliomeni previously worked as a Land Development Co-ordinator for five years with Cachet Reid Heritage Homes, formerly known as Reid’s Heritage Homes, in the London area.

David A. Gray, C.Tech., CCEP, is a principal at AGI Environmental Inc., an environmental contractor. Gray provides project management, prepares cost estimates and tenders for various AGI projects. Since starting with AGI, Gray has been involved in numerous large and small environmental site remediation programs in southern Ontario.

Paul Parise, C.Tech., formerly with Lite Products Ltd., has started his own business and is now the president of LED Solutions Inc. which manufactures, wholesales and retails customized engraved LED lighted signs and plaques.

Gary Robinson, C.E.T., GSC, has been appointed Managing Director at FLXCORP Consulting Inc. Prior to his appointment he was the Director of Facilities at Purolator Courier Ltd. Robinson has an extensive background in design build construction and is experienced in the design, installation and commissioning of automated parcel sorting systems. He was the lead Project Manager for the largest automated parcel sorting facility in Canada and was awarded the Gold Seal Certification by the Canadian Construction Association in recognition of his many successful projects over the years.

Jason Lawrence Shorey, A.Sc.T., is now working for PCL Constructors Canada Inc. as a Junior Project Manager. In this role, he works on commercial building applications in new construction and renovation. He began working on commercial buildings with Aecon a few years ago and has a background in project management working in the oil and gas industry in northern Ontario and Alberta.

Todd Williams, C.E.T., is now a Survey/Project Co-ordinator with The Karson Group. Williams worked for McIntosh Perry Consulting Engineers for over seven years before taking on this new venture. The Karson Group was purchased by Aecon in 2007 and is one of the largest civil construction companies in the Ottawa area.

We want to hear from other members who have recently changed jobs, received a promotion or an award, or completed an educational program. Make sure your fellow OACETT members read about it in The Ontario Technologist. Don’t be shy — send in your submissions to the editor at editor@oacett.org.
Honours and Awards 2010

Recognizing excellence in engineering and applied science technology

The Awards Committee invites individuals and employers to submit nominations for the Association awards listed below. Find the nomination form on the OACETT Website: www.oacett.org under Awards or call OACETT at 416-621-9621, ext. 236. Submit nomination forms to: Awards Committee, 10 Four Seasons Place, Suite 404, Toronto, ON, M9B 6H7 • Fax: (416) 621-8694

NOMINATIONS ARE DUE DECEMBER 31, 2010

Highest Association Recognition

Life Membership (Members)
The award is granted to an individual who has served the Association for many years in an exceptional manner.

Honorary Membership (Non-Members)
The award is granted to an individual who has made a significant contribution to the building of the Association, to the fulfillment of its objectives, or to the development of the profession of engineering/applied science technology.

Career excellence

Outstanding Technical Achievement Award (Members, Non-Members, Groups)
The award is granted to an individual, a business firm, a crown corporation, government agency, association, research and development agency, educational institution or individual entrepreneur to recognize outstanding technical achievement in engineering/applied science technology. The basis for granting the award could be a single exceptional accomplishment, or a long record of continuing excellence. It must be worthy of the designation “outstanding” in its contribution to technology in Canada.

Women in Engineering Technology Award (Members)
The award is granted to a certified OACETT member to recognize her outstanding technical achievement in engineering/applied science technology. The assessment criteria includes:

- A certified member in good standing
- Specific work accomplishments
- Career path improvements
- Corporate recognition
- Peer recognition
- Outstanding volunteer work
- Outstanding leadership
- Mentoring role
- Level of professional responsibility

Thomas William Hopson Memorial Award (Members, Non-Members, Groups)
The award is granted to an individual or group to recognize work of a technological nature and which is directed towards the service and betterment of humanity. It must be worthy of the accolade “for distinguished service to humankind through the application of engineering technology.” The work being recognized could be completed on a paid or voluntary basis, as well as singularly or in concert with others. Recognition of the work in the wider community would be a major factor in assessing the nominee’s contribution. It excludes service to the Association or for general technical work or non-technical community service.

George Burwash Langford Memorial Award (Members)
The award is granted to an individual who has distinguished himself/herself in his/her career, and thereby brought recognition and credit to the profession of engineering/applied science technology. It recognizes excellence in professional life, be it purely technical or in non-technical careers such as management, teaching, administration or other related work. It is not for work on Association-related bodies, boards or committees.

Outstanding Educator Award (Members, Non-Members)
The award is granted to an individual who has made a significant contribution to the education and training of engineering/applied science technicians and technologists. It recognizes a sustained record of teaching excellence over many years, and not for one specific year or singular accomplishment.

Meritorious service

Distinguished Service Award (Members, Non-Members)
The award is granted to an individual who has distinguished himself/herself in the service of the Association on a voluntary, salaried, or elected basis. While the award may be granted to recognize a singular accomplishment for the betterment of the Association, it is generally awarded to recognize sustained exceptional service over a period of time.

Blake H. Goodings Memorial Award (Members, Non-Members)
The award is granted to an individual who has either rendered long and distinguished service to the registration activities of the Association, or in the wider community, made a significant and definable contribution that impacts upon and benefits the Association’s registration, accreditation or certification process.

Outstanding Community Service Award (Members)
The award is granted to an individual to recognize outstanding voluntary service within the wider community. While the service performed does not necessarily have to be of a technology-related nature, his/her professional status/occupation as a technician or technologist is still publicly recognized, thereby bringing added admiration and respect to the profession. Recognition of past service or outstanding accomplishments by an organization, or the wider community in general, would be a major factor in assessing the nominee’s contribution. Length of service in itself would not qualify for the award.

Editorial excellence

Publications Award (Members, Non-Members)
The award is granted to an individual or group to recognize his/her/their authorship of an outstanding feature-length article, paper or work that was published during the relevant year by the Association itself or by another public communications medium. The work could have been completed singularly or in concert with others.
World leaders met in Copenhagen before Christmas to discuss climate change. At the end of their conference they issued the Copenhagen Accord which stated their collective view that “climate change is one of the greatest challenges of our time.”

The Accord said that sustainable development provided the proper context for addressing climate change but the Accord did not contain an actual plan to achieve sustainable development.

Any such plan will have to incorporate good, applied science. Members of OACETT should take note: they are in a unique position to help meet one of the greatest challenges of our time. That sounds pretty daunting but it becomes less scary when the challenge is broken down into concrete, measurable issues. Practical solutions can then be seen.

At its base, sustainable development is about managing our lives in a way that gives us what we want, without compromising the ability of other people (today or in the future) to have the same opportunity. There are different ways of seeing what is going wrong at the moment. Here are a few of them:

Ecological footprints: Ecological footprints measure the amount of land that people use to get the things they consume and to absorb the wastes they generate. If it were shared equally, there is enough productive land in the world for everyone to get the benefits of 1.8 hectares. Of course it would not be a single plot of land: people get the benefit of many bits of land around the world (bananas from Central America, oil from Saudi Arabia, timber from Canada, and so forth). The 1.8 hectares represents the sum total of all these bits of land around the world, shared equally. The average Canadian currently uses three times that amount of land, based on our current habits of production and consumption.
consumption. If we want to live more fairly, we need to improve the efficiency with which we use resources by a factor of three. Indeed, given the projected growth in world population we really need to improve by a factor of four over the long run. The amount of productive land is not getting any bigger, so there will be less per person in the years to come. The lesson here is that we need to become much more efficient in using resources to get what we want.

Life support systems: A major scientific project called the Millennium Ecosystem Assessment was carried out by 1,360 experts around the world from 2001 to 2005. It looked at the “ecosystem services” that nature provides to people. The study described 24 ecosystem services such as soil formation, photosynthesis, cycling fresh water, cycling nutrients and the regulation of fresh air. It found that human activity has caused degradation to 60% of these systems. We are undermining the very systems that support us. The lesson here is that we need to stop degrading nature if we want to keep our life support systems.

Natural capital: If we think of natural resources and ecosystem services as our “natural capital” – just like our stock of money is our financial capital – then a problem of overuse becomes somewhat obvious. We know that if we squander our financial capital now, we will be poorer in the future. It is better to invest our money in a way that produces annual dividends without eating into the capital itself. In that way we can carry on enjoying our financial wealth for years to come. The same approach applies to natural capital.

We should consume renewable resources (like livestock, agricultural crops and forests) in a way that allows them to keep renewing each year. If we consume them too quickly, we will ultimately be poorer. Similarly, we should make use of non-renewable resources (like minerals, or the plastics made from oil) in a way that preserves them. The existing inventories should be reused and recycled again and again. The lesson here is that there are limits to our natural capital and we should pay attention to those limits if we want to stay rich in the future.

Corporate social responsibility (CSR): No business will succeed for long if it doesn’t make money. Making an economic profit is a necessity of good management. Corporate social responsibility applies the same logic to the environmental

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The Ontario Technologist  
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conduct of a business. It needs to make a profit here, too. In effect, CSR looks at the environmental “profit and loss statement” for a business while natural capitalism looks at the environmental “balance sheet.” We should maximize the revenue part of our environmental conduct (for example, getting the most out of the 3Rs – reducing, reusing and recycling) and we should minimize the expense part of such conduct (for example, by reducing pollution emissions). The lesson here is that our environmental conduct needs to show positive improvement each year.

Each of those perspectives is obviously connected to the others and the lessons are consistent with one another. With those perspectives in mind, here are four suggestions of areas of work where OACETT members could make a real contribution toward a sustainable future:

Measurement: If businesses do not measure things that affect the sustainability of their conduct, sustainable development will not happen. Engineers, technicians and technologists are the very people who should be devising, implementing and improving the measurement systems for things like: greenhouse gas emissions; ecological footprints; environmental degradation; energy efficiency; renewable rates for raw materials; the amount of recycled materials in a product; air and water cleanliness; and, the environmental absorption rates for waste materials.

These things can, and should be, measured. The measurements will have to be tailored to specific businesses and then applied on a practical level. OACETT members can do that.

The 3 Rs: It is one thing to measure the efficiency of using energy and materials. It is another thing – and it is the main point of the exercise – to devise and implement ways to become more efficient. Study after study has shown that our industrial processes could become much more efficient if more attention was paid to reducing our use of energy and materials.

According to the authors of Natural Capitalism, only 6% of the flow of materials in the U.S. economy actually ends up in products. There is a huge area of work where practical, applied science can improve industry’s efficiency. Similarly, we need to devise and implement more ways to reuse and recycle. The whole metabolism of industry needs to be based on continuously recycling materials instead of throwing them into landfill sites. Products could be made for easy dismantling so that parts could be conveniently reused. New materials, based on recycled materials in a product; air and water cleanliness; and, the environmental absorption rates for waste materials.

These things can, and should be, measured. The measurements will have to be tailored to specific businesses and then applied on a practical level. OACETT members can do that.

Renewable energy: The regulation of climate is one of the ecosystem services that nature provides to us and we are interfering with this ecosystem by overloading it with greenhouse gases that come from burning fossil fuels. A sustainable future needs to reduce our dependence on them. The Ontario government is trying to make the province a centre in North America for a new, green economy and it wants to kick-start that process by promoting renewable energy.

The political framework has been put in place with the recent Green Energy Act and the agreement to pay reasonably high prices to generators of green energy. The development of renewable energy is still in its infancy and there is much work to be done in all sorts of technologies like solar thermal, solar electricity, wind energy and geothermal. These green industries are little more than ideas in Ontario at the moment, but they offer the potential for growth in the years to come. OACETT members can make that growth happen.

Green buildings: The U.S. and Canada Green Building Councils are doing a good job of promoting green buildings through their LEED programs (Leadership in Energy and Environmental Design). Implementing ways to make buildings ever greener is a task for applied science. This can be done by making intelligent use of insulation, putting in systems to make the buildings “smart” and reducing the overall environmental impact inside the buildings and on their grounds. OACETT members can perfect these tasks.

There is no doubt that there are all sorts of other areas where engineering and applied science technology can help. Part of the challenge is simply to recognize the unsustainable course we are now on and then unleash people’s creativity to find more sustainable alternatives.

The world leaders in Copenhagen showed in their Accord that they recognized the unsustainable part of business-as-usual, but they did not come up with a practical way to restructure global business. OACETT members generally work at a more modest level and the way is clear for them to find practical solutions at their more modest – but essential – level. A sustainable future will be brought closer if people working in engineering and applied science unleash their creativity now.

The challenge is there for every OACETT member who wants to take it up.

Robert Spence is a speaker and consultant on sustainable management. He is the author of “7 Perspectives on Sustainability” and “The Sustainability Officer’s Handbook.” His website is www.sustainabilitymanagement.ca

www.oacett.org
March/Apil 2010
Looking down on our cities and municipalities, one may notice that things are becoming a bit more “green.” This isn’t due to an increase in parklands or forests but a change on the roofs of our buildings. Green roofing has been gaining momentum over the years as the environmental and financial benefits have become better known.

So what is green roofing? It is a system designed to be installed over top of a new or existing conventional or low slope roof. Green roofs can be classified two ways - intensive or extensive.

Intensive green roofs contain a deeper growing medium, have a wider range of vegetation and often require frequent maintenance/irrigation. Intensive green roof systems are regularly used as actual gardens. This in turn requires careful planning to ensure proper insulation, structural design considerations and overall cost.

Extensive green roofing consists of drought resistant vegetation that provides mat-like foliage, requires minimal maintenance/irrigation and has a minimal soil depth. Green roof systems vary but there are several things that are consistent. Every system has a drainage layer and a root barrier/filter fabric. All green roofs contain special soil mix substrates that are lightweight have optimum water retention, resist erosion and have excellent permeability. Green roof vegetation can consist of sedums, grasses, perennials, small trees, shrubs and flowers.

Conventional vs. modular roofs

There are two types of systems: conventional and modular. The conventional systems consist of a waterproof roof deck, root barrier, drainage channel, filter fabric, soil and plant plugs. Substrate is usually blown on top of the roof or craned up in bags. Once the soil is in place, it is raked and levelled accordingly.

The substrate is usually saturated and rolled over to ensure that the desired depth of soil is reached. A conventional green roof system requires you to plant plugs and maintain the plant life until they reach full maturity. Full maturity typically takes place in two to four seasons. There is also the option of sowing or installing pre-cultivated blankets of vegetation. These blankets of vegetation will give your green roof immediate benefits.

Conventional green roofs can vary in weight but extensive systems usually range from 10 to 20 lbs. per sq. ft. Soil thickness varies but an extensive roof is typically two to six inches deep. There are many different layered systems on the market. Many conventional green roof systems offer a very good warranty because they are providing a total package system.

A modular system consists of a waterproof roof deck, root barrier and a pre-vegetated module. Vegetation is grown in a nursery and is fully matured in the module. Modular companies deliver the green roof ready to be installed. This requires very little initial maintenance and full vegetation occurs quickly. Buildings therefore
benefit right away from modular systems.

Green roof modules are craned up in a hopper configuration and are off loaded on to a conveyor on the roof. Workers then move modules to the appropriate areas and lay them out accordingly. Once the modules are in place, the soil elevators are pulled and this creates a fully integrated seamless green roof system. This enables the installer to shape a radius or curve around roof penetrations or gives endless possibilities for design.

The two systems vary in costs but a conventional green roof is typically cheaper. Green roof prices can range from $12.00 to $21.00 per sq. ft., depending on factors such as size and complexity, building height, market competition, need for structural modifications, availability of materials/plant life and equipment. Certain green roofs may need a maintenance contract which costs extra. Conventional green roofs can be installed in one to two weeks and modular systems can be installed in a week to ten days depending on site conditions.

Various other systems are beginning to be introduced but conventional and modular systems have been installed and maintained for years and are generally used the most.

Environmental benefits

There are many benefits of green roof systems. Green roofs help with air quality by reducing airborne particles and act as a filter for the air moving over them. The vegetation on a green roof helps promote photosynthesis and dissolve gaseous pollutants like carbon dioxide, turning them into oxygen and glucose. They also provide sound insulation as plant material and growing medium act as an acoustic insulator.

Water quality and storm water retention is another benefit of green roofing. The growing medium on the roof will help maintain a controlled flow of water, minimize storm sewer backup in heavy rain fall and will retain particulate matter. It is possible to create zero discharge of rainwater into municipal storm sewers when combined with a proper site retention pond.

Green roofing can provide the opportunity for habitat recreation. Careful design can imitate actual habitats providing homes for many birds and invertebrates. Intensive green roofs used as gardens can help with food production. Local markets can benefit from green roof food production or the owner can themselves.

Financial benefits

Having a green roof on top of a conventional roof can triple the life span of the roofing system. Green roofs help with temperature regulation and in turn help with the heat island effect through natural evaporative cooling. The green roof

Conventional Green Roof System (Provided by Soprema Inc.)

1) Vegetation
2) Sopraflor growing medium (type X, I or L)
3) Aquamat Jardin
4) Sopradrain 10-G
5) Concrete, wood or steel scrub
6) Gravel or paver
7) Cap sheet membrane
8) Base sheet membrane
9) Primer
12) Vapour barrier
13) Support panel
14) Insulation
15) Microfab

BY SCOTT VANULAR C.TECH., & COOPER GRANT A.SC.T.
will reduce ambient surface temperature and expand vegetative surfaces to provide a reduction in peak summer urban heat island temperatures.

Building performance is also optimized by external envelope shading. Large leaf plants provide shade to roof tops and prevent heat from traveling through the roof during the summer months. This helps minimize building cooling loads. In winter months internal heat is absorbed by the roof.

Green roofs improve building performance by extending the life of roof membranes. Membranes are protected by the substrate and vegetation which eliminates direct solar degradation. The green roof will also prevent wind drying, mechanical damage and eliminate cracking and leaks of the roof membrane.

Green roofs also provide a pleasing building appearance and can enhance the overall value and appearance of a building by beautifying urbanized/industrialized areas. Green roofs give the opportunity for building professionals to be more creative with their designs and project ideas. Municipalities will benefit economically by buildings creating less strain on storm sewers and decreased flooding to watershed areas.

**Government incentives**

Governmental agencies and municipalities are becoming aware of the various benefits of green roofs. New incentives are being issued and passed all the time.

Building professionals should stay on top of these grants/incentives to benefit their clients. They are also starting to pass by-laws for new construction permits in the ICI (industrial, commercial and institutional) and residential building sectors. American governmental agencies are looking at passing bills which issue tax credits for green roof
For years, 3D plant design programs were expensive and challenging to implement and use. Many still are.

**CADWorx is different;** less complicated, more flexible, no programming and less do-over. With 3D, CADWorx virtually eliminates errors, and still lets you generate the 2D drawings you need, faster and more efficiently than any other method.

CADWorx is a full-featured AutoCAD-based modeling package for pipe, steel and equipment that quickly produces detailed BOM’s, automatic isometrics, performs 3D walk-throughs, detects clashes and has the only bi-directional interface with pipe stress and pressure vessel analysis.

If you’re making the move to 3D...

The bylaw will be required on all new development above 2,000 m² of gross floor area and have a graduated coverage requirement ranging from 20 to 60%.

**Green roofs improve building performance by extending the life of roof membranes... and can enhance the overall value and appearance of a building by beautifying urbanized/industrialized areas.**

**LEED benefits**

As more buildings are applying for Leadership in Energy and Environmental Design (LEED) certification, green roofs will help obtain certain points for your desired level. If your project is aiming for LEED certification, green roofs will aid in receiving credits for storm water management, urban heat island effects, water efficiency, energy and atmosphere, materials and resources, local sources, recycled content, renewable materials and innovation and design.

Green roofs can be combined with other sustainable roof top technologies such as solar and wind to further the design innovation credit.

Scott Vanular, C.Tech. and Cooper Grant, A.Sc.T. are Partners at Construct & Conserve Building Inc., a construction company specializing in green buildings for the residential, industrial, commercial and institutional sectors.

Both Scott and Cooper are currently working on their LEED AP designation through the Canadian Green Building Council (CAGBC) and C.E.T. designations through OACETT.

**MAKING THE MOVE TO 3D?**

For years, 3D plant design programs were expensive and challenging to implement and use. Many still are.

**CADWorx is different;** less complicated, more flexible, no programming and less do-over. With 3D, CADWorx virtually eliminates errors, and still lets you generate the 2D drawings you need, faster and more efficiently than any other method.

CADWorx is a full-featured AutoCAD-based modeling package for pipe, steel and equipment that quickly produces detailed BOM’s, automatic isometrics, performs 3D walk-throughs, detects clashes and has the only bi-directional interface with pipe stress and pressure vessel analysis.

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Notice of Annual Meeting of Members

In accordance with By-law 18, Section Two, Subsection 2.1, notice is hereby given to voting members of the Ontario Association of Certified Engineering Technicians and Technologists of the annual meeting to be held:

Saturday, June 5, 2010 from 10:00 a.m. to 12:00 p.m.
at the Delta Grandview Resort, 939 Hwy. 60, Grandview Drive,
Huntsville, Muskoka, Ontario

for the purpose of approval of 2009 year-end financial statements, the appointment of auditors for the year 2010, approval of By-law amendments and other such business as may properly be brought to the attention of the said annual meeting of members.

Hillary Tedoldi, Secretary-Treasurer

NOTICE TO:

The voting members of the Ontario Association of Certified Engineering Technicians and Technologists.

Registered members of the Association in good standing may exercise their voting rights under Section 9 of the Ontario Association of Certified Engineering Technicians and Technologists Act and, by means of proxy, appoint a person as their nominee to attend and act at the Annual Meeting of Members in the manner, to the extent and with the power conferred by proxy. Only voting members are entitled to complete a proxy form; nominees must also be members in good standing.

The proxy form below will give your nominee permission to vote on all questions raised at the Annual Meeting. If you wish to limit your proxy to one or more questions, or to instruct your nominee as to the manner in which your vote is to be cast, you must so indicate in writing at the bottom of the proxy form.

ALL PROXIES MUST BE DATED AND SIGNED BY THE VOTING MEMBER or HIS or HER ATTORNEY, AUTHORIZED IN WRITING.

In accordance with By-law 18, Section Two, Subsections 2.7 and 2.8. an instrument appointing a proxy shall be in writing and shall be acted on only if it has been deposited at the Association’s office, or with the Secretary of the Association, not less than forty-eight (48) hours prior to the day of the meeting or any adjournment thereof. A proxy shall expire at the close of the meeting for which it was intended, or at the close of any adjournment thereof. A proxy may be revoked by an instrument in writing executed by a member or by his/her attorney authorized in writing and deposited either at the Association’s office, or with the Association Secretary at any time prior to the start of the meeting, or any adjournment thereof, at which the proxy is to be used. The proxy is revoked upon either of such deposits.

Notice of motion has been given in this issue of The Ontario Technologist concerning the approval of year-end financial statements, the appointment of auditors, approval of By-law amendments and other such business as may properly be brought to the attention of the meeting.

Yours sincerely,

Hillary Tedoldi, Secretary-Treasurer

Ontario Association of Certified Engineering Technicians and Technologists

PROXY

The undersigned voting member of the Ontario Association of Certified Engineering Technicians and Technologists hereby appoints ____________________________________________________________ of ____________________________________________________________ (if no other name appears, the President) or, failing him ____________________________________________________________ as the nominee of the undersigned to attend and act at the Annual Meeting of Members of the said Ontario Association of Certified Engineers Technicians and Technologists to be held at the Delta Grandview Resort, 939 Hwy. 60, Grandview Drive, Huntsville, Muskoka, on the 5th day of June, 2010 at 10 a.m. and at any adjournment or adjournments thereof in the same manner, to the same extent and with the same power as if the undersigned were present at the said meeting or such adjournment or adjournments thereof.

Dated at ____________________________________________________________, this __________________ day of _________________________, 2010

Name of Voting Member (Please Print) ____________________________________________________________

Membership Number of Voting Member ____________________________________________________________

Signature of Voting Member ____________________________________________________________
Change to Associate Member titles

In an effort to streamline the number of titles currently in use and reduce confusion by the public, Council has implemented the following changes to the Associate category. Effective January 1, 2010, all new non-certified members (except those in the Road Construction program) will be placed in one of two categories: Associate or Associate – Student. All members currently listed as Technical Specialist, Graduate Technician or Graduate Technologist will remain in that category. However, any replacement documentation will only indicate Associate or Associate-Student.

December 8th, 2009

Certified Engineering Technologists

Auday Al-Salihi, C.E.T.
Domenico Arcuri, C.E.T.
Oluadare Ayetan, C.E.T.
Kyle Bensette, C.E.T.
Richard Black, C.E.T.
Daniele Cerone, C.E.T.
Ka Wing Chan, C.E.T.
Roseller Corcuera, C.E.T.
Douglas Durham, C.E.T.
Daniel Fencott, C.E.T., rcca
Tanya Fleming, C.E.T., rcsi
Brent Garcia, C.E.T., rcji
Melissa Greene, C.E.T.
Scott Hamill, C.E.T.
Timothy Howarth, C.E.T.
Feroze Irani, C.E.T.
John Kallikorm, C.E.T.
Lalith Kekulawala, C.E.T.
Vladimir Kharin, C.E.T.
Vinod Kumar, C.E.T.
Kevin Lima, C.E.T.
Ronald Madsen, C.E.T.
Ron Maylen, C.E.T.
Peter McLean, C.E.T.
Mikolaj Mruk, C.E.T.
Kurt Paraiso, C.E.T.
Thakorbhai Patel, C.E.T.
Kevin Pelch, C.E.T.
Michael Russo, C.E.T.
Marcus Schaum, C.E.T.
Haritkumar Shukla, C.E.T.
Marc St-Jean, C.E.T.
Kui Wu, C.E.T.
Hai Yang, C.E.T.

Certified Technicians

Stephen Burley, C.Tech.
Anthony Cerundolo, C.Tech.
Mihir Chauhan, C.Tech.
Saeed Davoodi, C.Tech.
Alexander Dragun, C.Tech.
Castro Evardo, C.Tech.
Geremy Fung, C.Tech.
Piyush Gajjar, C.Tech.
Karmjit Gill, C.Tech.
Michael Lee, C.Tech.
Andrea Little, C.Tech.
Matthew Loton, C.Tech.
Jose Quezada, C.Tech.
Bryan Sangalang, C.Tech.
Richard Steacy, C.Tech.

Associate Members

Aaron Ashley
Jeremy Boyd
Alex Frank
Stephen Gouldby
Jeffrey Guillermo
Ryan Hatton
Divakar Jha
Seyed-Amir Khatami
Zahra Kuepfer
Eric Lallouet
Rose Lantaigne
Sebastian Marcu
Nathan Monahan

Certified Science Technologists

Philip Alberto, A.Sc.T.
John Bartok, A.Sc.T.
Jeffrey Burdzy, A.Sc.T.
Guy Charbonneau, A.Sc.T.
Ranjitsinh Chavda, A.Sc.T.
Gian Carlo Flores, A.Sc.T.
Sara Gee, A.Sc.T., rcji

Josh Otermanns
Fenil Patel
Inam Rehman
Gabi Rosioru
Thomas Samways
Tekleab Schewai
Marseel Shehata
Rupinder Singh
Jaimelynn Sluser
James Spears
Roslyn Verwey

Graduate Technicians

Awad Elhassan
Vincent Hicks
Jesse Kuluski
Kyle Mills Brooks
Brad White

Graduate Technologists

R. Trevor Affleck
Donald Bester
Joseph Bondy
Anthony Botteccia
Sharon Cart
Deepak Chagger
Stephen Davies
John Dwinell
Blair Franklin
Angelo Gibaldi
Tom Gibbons
Chad Guertin
Anthony Hum
Szczepan Kepka
Graham Kitching
Shane Maddeford
John Magno
Francesco Martinelli
Ryan Mills
John Park
Stephen Payne
Rene Richard
Anto Rimac
Andrew Sawchuk
Paulo Silva
Christopher Underwood
Bryan Wessel
Maryam Zare
new members
RECOGNIZING NEW AND CERTIFIED TECHNICIANS AND TECHNOLOGISTS

Technical Specialists
Nazar Abbosh
Mohammed Ahmed
Erik Anderson
Scott Anderson
Ranvir Bains
Deepinder Bedi
Vishal Bhatia
David Bruce
Brian Calhoun
Chris Chagaris
Tak Yin Chan
Rajeshkumar Christi
Jitendra Desai
Sukhwinder Dhanoa
JamesDueck
Regan Evacula
Muhammad Farooq
Scott Freiburger
Muhammad Hanif
Martin Hibbins
Catherine Hurst
Zahid Hussain
Muhammad Ikram
Bhagyesh Joshi
Saleem Khan
Yonis Libah
Armando Marquez
Salah Mashkour
Wilson Mathews
Jasmin Mehta
Johnny Mendoza
Liibaan Moalin
Alan Moore
Brian Mulholland
Anjana Nayyar
Elias Ouromidis
Chirag Pandit
Edmund Pangan
VipulkumarPatel
Jovica Pejicic
AlicePhilip
Manish Kumar Prajapati
SandeepRalhan
NicholasRiddick
WayneRoberts
KashifSaleem
NoelSanJose
CodySchnarr
AmitabhSharma
BillShaw
AleksandarShterev
PuneetSokhi
CarrieStephenson
AjayTaak
IanTabensky
RaivoTahiste
Muhammad Tariq
ApurvakumarTripathi
Gregory Tubman
Manish Upadhyay
ConstantinVarlokostas
SureshVishwakarma
DavidWebb
DeniWolfe
JiaWuXu
JagbirPhogat,C.E.T.
GerardRamadhin,C.E.T.
JasvinderSadyora,C.E.T.
MarioSawatzky,C.E.T.
GeorgeShaparew,C.E.T.
IvanSteihl,C.E.T.
DevinderTaggar,C.E.T.
RyanUnrau,C.E.T.,rcji

Existing OACETT Members with MTO Designation

Certified Engineering Technologists
BrianLaramie,C.E.T.,rcji
ChristopherScott,C.E.T.,rcji

Graduate Technician
JulianPompeo,rcji

Graduate Technologist
JulMagbanua,rcji

Technical Specialist
Donald Parker,rcsa

January, 8th, 2010
Certified Engineering Technologists
MinhajAhmed,C.E.T.
BrandonBarroso,C.E.T.
RommelBerdos,C.E.T.
JianPing(Daniel)Dong,C.E.T.
DonaldEvans,C.E.T.
NorbertoFarrales,C.E.T.
JohnnyGabrielli,C.E.T.
IncheolKim,C.E.T.
NarendraRaoKodali,C.E.T.
VictoriaKostichuk,C.E.T.
DavidLittle,C.E.T.
RussellMagg,C.E.T.
MarkMcMillan,C.E.T.
GirishMehta,C.E.T.,rcsi
EduardoMonsalvePerez,C.E.T.
MarianaNedescu,C.E.T.,rcji
MostafaPasha,C.E.T.
TikenduPatel,C.E.T.

Applied Science Technologists
JohnAbreu,A.Sc.T.
CharlesAlongi,A.Sc.T.
Adil(Eddie)Azadeh,A.Sc.T.
JoshuaBates,A.Sc.T.
JustinBonn,A.Sc.T.
MarkBroug,A.Sc.T.
SenciaCadiz,A.Sc.T.
EzioCarlino,A.Sc.T.
MattCarty,A.Sc.T.
MarcelCase,A.Sc.T.
David Cotter,A.Sc.T.
AndrewCourt,A.Sc.T.
JonathanDaSilva,A.Sc.T.
MartinDavison,A.Sc.T.
DanteDelaCruz,A.Sc.T.
AlbertDionne,A.Sc.T.
RobertDolhai,A.Sc.T.
DarrellEailey,A.Sc.T.
AntonioFernandez,A.Sc.T.,rcsi
JimFlegg,A.Sc.T.
RyanFrancoeur,A.Sc.T.
KanwalpreetGill,A.Sc.T.
AaronGingerich,A.Sc.T.
TomaszGoral,A.Sc.T.
DavidGordanier,A.Sc.T.
CurtisGrant,A.Sc.T.
DenisGravel,A.Sc.T.
BrandonHeyer,A.Sc.T.
ShawnHeynen,A.Sc.T.
SuHuang,A.Sc.T.
TuatHuynh,A.Sc.T.
ChandrabalanJayaraman,A.Sc.T.
MuhammadKaleem,A.Sc.T.
JamieKreeft,A.Sc.T.
ChristopherKwaka,A.Sc.T.
DenisLabelle,A.Sc.T.rcji
DerekLalonde,A.Sc.T.
BeverlyLeno,A.Sc.T.
NathanLove,A.Sc.T.
AdamMacMillan,A.Sc.T.
RishabMadhar,A.Sc.T.
AdamMakarewicz,A.Sc.T.
DayanandamurthyMallikarjuna,A.Sc.T.
ChengMao,A.Sc.T.
RachaelMarozzo,A.Sc.T.
DuncanMcKinnon,A.Sc.T.
RickyMohammed,A.Sc.T.
Certified Technicians

Mike Abboud, C.Tech.
Gordon Blanchard, C.Tech.
Mark Bogle, C.Tech.
Miklos Borsos, C.Tech.
John Buonomo, C.Tech.
Scott Carpenter, C.Tech.
Ronald Dane, C.Tech. rcca
Michael De Pinto, C.Tech.
Andre Dionne, C.Tech.
Umakant Duggal, C.Tech.
Mohammed El-Refai, C.Tech., rcji
David Else, C.Tech., rcsi
Stephen Gazo, C.Tech.
Kashif Ghori, C.Tech.
Samuel Giorgi, C.Tech.
Lei Jin, C.Tech.
Bhumika Kelawala, C.Tech.
Hassan Khan, C.Tech.
Ilija Kovac, C.Tech.
Ali Kuran, C.Tech.
Reynald Lagrange, C.Tech.
Pauline Liddiard, C.Tech., rcji
Katie Lindey, C.Tech.
Charles Mauceri, C.Tech.
Robert McMahon, C.Tech., rcca
Allan Moonie, C.Tech.
Michelle Moore, C.Tech.
Rodger Morgan, C.Tech.
Jovi Nino Pascua, C.Tech.
Adrian Persaud, C.Tech., rcsi
William Poirier, C.Tech.
Julian Pompeo, C.Tech., rcji
Kevin Prashad, C.Tech.
Eric Price, C.Tech.
Anil Ramjas, C.Tech.
Abhigna Rao, C.Tech.
Pritch See, C.Tech.
Lloyd Randy Sweet, C.Tech.
Jeffrey Teiko, C.Tech.
Maureen Tychoniak, C.Tech., rcsi
Adrianus Van den Broek, C.Tech.
Christopher Wilson, C.Tech.
Songpu Wu, C.Tech.
Xin (Vicky) Wu, C.Tech.

Associate Members

Weda Arachchige Abeygunawardena

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Please apply at least six weeks in advance.
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RECOGNIZING NEW AND CERTIFIED TECHNICIANS AND TECHNOLOGISTS

Sonalben Acharya
Pasquale Agustino
Istiaque Ahmed
Courtney Alexander
Samer Al-Laham
Alejandro Anchundia
Robert Apelo
David Archibald
Alexander Ayson
Nuno Azevedo
Amir Farrokh Azmayesh
Marc Baglio
Kyle Bahieda
Natalie Blancher
Justin Borrmann
William Boudreau
David Briand
Rich Brown
Jordan Calabrese
Badaracal Cin
Giovanni Cirillo
Joshua Collins
Andrew Cooper
Steven Cornelius
Kristy Coulson
Lawrence Davies
Laurelle Dawson
Mike DiNallo
Adriano Esposito
Jonathon Facchin
Jarrod Finlay
Chris Forczyk
Ranvir Gahlon
Jonathan Graf

Daniel Guilmillette
Nasim Hermani
Geoffroy Hickey
Jessey Holdsworth
Zahid Janjua
Stephen Jankus
Joe Jansen
Anupkumar Joshi
Jaya Kasiedass
Ezzat Kayali
Samira Khanam
Amolak Lachhar
Nikolaus Lang
Patrick Lucas
Ariel Macasaet
James McGuire
Gabriel McMullen
Joseph Miller
William Mitchell
Habiba Nakalyowa
Shivam Narinesingh
Giang Nong
Egal Nur
Oluwafemi Oladunjoye
Yaroslav Oleksiu
Jared Olsen
Kiran Oomen
Prashanth Panda
Jennifer Parker
Ritesh Kumar Patel
McLean Patterson
Michael Pecaski
Ghansham Pritipal
Alberto Robles

Mark Ryan
Mike Salekia
Abdullah Sarfraz
Santosh Sarkur
Martinus Scholtz
Morgan Sills
Ryan Sills
Randy Souliiere
Kelly Sousa
Antoine Stavro
Adam Svantesson
Jeffrey Taylor
Alam Ross Terry
Jamie Thompson
Mike Viau
Joseph Wabegijig
William Withers
Jean-Paul Zawacki
Zongyou (Richard) Zhang

Existing OACETT Members in Road Construction

Antonio Mesa, A.Sc.T., rcji
Abdillahi Awad, C.E.T., rcji
Joseph Crupi, C.Tech., rcji
Muhammad Hanif, rcji
Lal Madepogu, rcji

Give us a hand...
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IN MEMORIAM

Roy Clarke, Senior Engineering Technician
Brian Ferguson, C.Tech.
A. Gary Frizzell, Senior Engineering Technician
Kwan Kwok, Senior Engineering Technician
Richard Sasvari, C.E.T.
Kenneth Sinclair, Senior Engineering Technician
John Ward, C.E.T.
Georgian College, in partnership with the Continental Institute of International Studies (CIIS) in India, is providing students from India with an opportunity to gain Canadian education and experience through its Mechanical Engineering Technology – Automotive Manufacturing Advanced Diploma (META) program. This unique co-operative education program supports the growing need for skilled and technical workers in India and is helping Indian students gain the global experience needed to compete for jobs in their own country and abroad.

The META program was launched in India in 2003 and runs simultaneously with Georgian College’s program in Barrie. Both META programs share the same curriculum which is based on a three-year co-operative education program of six academic courses and three co-operative work terms. Since its inception, the program’s international standards and extensive co-op work terms have strengthened its relevance and added to its uniqueness in India.

Since 2003 approximately 400 students have enrolled at the CIIS campus in Chandigarh, India with about 85 per cent of these students transferring to the Canadian campus to complete their studies and co-operative work term. “To ensure the success of the program, Georgian College governs the academic delivery and CIIS manages the facility and hires local faculty,” explained Paul Stevens, International Projects, Georgian College. Students from Canada also have the op-

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**Learning Curve**

**News and Views from Ontario Schools**

**By Michelle Malcolm-Francis**

Georgian College partners with India on automotive education program

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tion of taking an academic semester in India at CIIS. As of now, few Georgian students from Canada have attended CIIS because of travel costs and their inability to work during their studies in India.

The META program courses are closely related to current Canadian industry standards and requirements with technical and non-technical courses giving emphasis to advance manufacturing techniques, international quality standards, production planning and control methods. Requirements to enter the program in India are equivalent to Canadian academic entry standards. Students are required to successfully complete grade 12 Mathematics and English courses before registering for the program. Graduates earn an advanced diploma in Mechanical Engineering Technology - Manufacturing and find occupations at automotive assembly and parts manufacturing companies in design, production, quality assurance, testing, management, technical sales and service.

The CIIS faculty is made up of both Canadian and Indian professors who have a minimum of 8 to 10 years of experience in the industry. Stevens believes that having faculty from both cultures strengthens the academic relationship between campuses and is paramount to the success of the program.

The Canadian faculty members who travel to India are assigned to teach the META program for up to eight months (two academic semesters). They also contribute to marketing efforts and build business relationships during their stay. Indian students are always interested in Canadian lifestyle and the teachers bring the Canadian culture right to the classroom. Time is spent orientating students on college life in Canada and this helps the students feel more connected to Georgian’s Barrie campus.

Georgian and CIIS have been successful in creating strong ties with many Indian companies who provide paid work terms and full-time employment to Indian students. Many multinational companies are coming to India and setting up manufacturing facilities there. Companies like Honda and Siemens have partnered with the program and are giving students a competitive edge when they graduate. D.S. Sohato, Program Coordinator, Engineering Studies at CIIS believes co-op work terms are essential too, as they teach students the ethics, safety and working conditions of the Canadian workplace.

According to Stevens, convincing Indian employers that the diploma is top-notch education was difficult at first. However, a gradual understanding of the program’s worth has led to an increase in paid work terms and today, 60 to 70 per cent of companies are paying co-op students.

Since the automotive industry’s growth in India, a more affluent population has emerged. Many manufacturing companies in India have the latest technology, but are experiencing a shortage of technicians and technologists who are the backbone of the manufacturing industry.

“The Indian academic culture has focused for many years on university education,” said Stevens. The consequence today is that although India has a population of 1.2 billion, there are not enough skilled professionals to support the manufacturing need. Stevens strongly believes that educating the general population, industry and academia about the META program can help fill the skills gap.

David Thomson, Executive Director of OACETT toured the META program in Chandigarh at the invitation of Georgian College during a personal vacation in India. David noticed an explosion of colleges being built, specifically engineering schools. Many private engineering schools are under construction as the country attempts to meet the education needs of its people and demands of its burgeoning economy.

Stevens believes that even though the automotive industry in Canada is fully committed to the META program, the college has a long road ahead in garnering the same support in India. Continuing to work with the Indian automotive community and becoming more involved in the industry will help to ensure a long-standing future for the META program and Georgian College’s Indian students.
ACETT is changing the criteria used to determine the awarding of our certified titles of Certified Engineering Technologist (C.E.T.), Applied Science Technologist (A.Sc.T.), and Certified Technician (C.Tech.).

The association currently employs two technologist titles – C.E.T. and A.Sc.T. The C.E.T. requires the writing of a Technology Report (TR) and is normally given to candidates who have completed an “engineering” technology program. The A.Sc.T. is normally given to those that have completed an “applied science” technology program but does not require completion of a TR. Furthermore, since 2002, OACETT has been awarding the A.Sc.T to candidates in the “engineering” technology programs who have not completed a TR. This has been confusing to the public since both fall under the category of technologist. Also, as more and more technology programs in Ontario become nationally accredited, graduates from accredited applied science programs must do a TR before graduating. These students receive an A.Sc.T. title even though, like a C.E.T., they have completed a TR.

Council is therefore eliminating the granting of new A.Sc.T. titles as of July 1, 2010. This will affect current Associate OACETT members who, if not certified before June 30, 2010, will either receive a C.Tech. title, or if they meet the certification requirements for technologist and write a technology report, obtain the C.E.T. title, regardless of their discipline.

Another change will automatically give a C.E.T. title to any A.Sc.T. who has already submitted a technology report. This change will also come into effect on July 1, 2010. A.Sc.T. members who have
not submitted a TR will retain the A.Sc.T. title unless they choose to submit a Technology Report which will earn them a C.E.T.

This will result in a more equitable playing field as all technologists will have written a Technology Report. It will also alleviate any confusion in the public as to the difference between a C.E.T. and A.Sc.T. As more members receive C.E.T. title, the designation will become more recognizable across Ontario.

“IETO feels it is important that our designations clearly and accurately portray the qualifications of our members,” said OACETT Registrar Sam DiGian-domenico. “By focusing on one technician and one technologist title, OACETT reduces the confusion around ‘levels’ of technologists, is consistent with the application of qualifications for technologists and respects the national accreditation process for technology programs in Ontario.”

Regardless of title, according to the association’s Code of Ethics, by which all certified members must abide, members must undertake and accept responsibility of professional assignments only when qualified by training or experience. Any member who breaches this code will be dealt with by OACETT’s Discipline Committee. As a self-regulated profession, this is one of our responsibilities and it ensures protection for the public.

It will also be more consistent with procedures across the country and with other professional associations since the majority of provinces only use one technologist title and all provinces require the writing of a TR to obtain a technologist title.

The above changes were approved by Council at its March 6th meeting.

Stephen Morley, C.E.T. is the Vice-President of the Institute of Engineering Technology of Ontario (IETO).
London Chapter

The London Chapter held its annual Women in Trades and Technology night on February 10. Brenda Stonehouse, C.Tech., a Project Manager with the University of Waterloo gave a humorous and inspirational presentation on Women in Technology to a very appreciative audience.

Michael Moriarty, College Liaison working at the OACETT booth at Fanshawe College's 2010 Career and Summer Job Fair.

Michael Moriarty, A.Sc.T., the London Chapter Fanshawe College Liaison Committee Chair represented OACETT at the recent Fanshawe College Career and Summer Job Fair on February 10. About 360 students visited the booth to learn about the career enhancing and financially rewarding benefits of being certified by OACETT.

Daryl Keys, C.E.T. is London Chapter Chair: London-chapter@oacett.org.

Grand Valley Chapter

On February 27 Grand Valley Chapter members went to the Queen and Meatloaf Tribute Show at the River Run Centre in Guelph. Before the show members took a technical tour of the backstage area including the lighting and sound systems. Everyone had a great time learning how a show unfolds on stage and enjoyed the concert that followed. Special thanks to the River Run Centre staff and Steve Conway for arranging a wonderful evening.

A group of 50 people from the Grand Valley Chapter attended an OHL hockey game between the Kitchener Rangers and the Guelph Storm on March 7. This has become a great annual event. Special thanks to Doug Patterson, C.E.T., for planning this great afternoon.

The chapter is organizing another speaker’s night. The topic of the evening is on the future of light rail transit in the Kitchener-Waterloo area. Once the date and location are confirmed an email will be sent to all chapter members. We encourage members to sign up early. We would like to thank Kelly Robinson, A.Sc.T., for championing this event.

The chapter has adopted a section of County Road 124 between Guelph and Cambridge. Tentative clean-up dates are May 1, July 10 and October 23. We look forward to having our chapter members help clean up our section of the road. Additional information regarding clean up dates will be emailed to chapter members and made available on the Grand Valley Chapter website.

For more information on upcoming events, visit our website at www.oacettgvc.ca or contact Mike Laurie.

Mike Laurie, A.Sc.T. is Grand Valley Chapter Chair: mike-laurie@melloul.com.

Essex Chapter

On February 17, Essex Chapter director Ron Oriet presented the OACETT Essex Chapter bursary award and the Carole and George Fletcher Award at St. Clair College’s awards night at the St. Clair Centre of the Arts. Stephanie Knapp is this year’s recipient of the bursary award and Kolja Nikac received the Carole and George Fletcher Award.

Essex Chapter members are invited to attend our annual general meeting on Saturday, April 17 at Lilly Kazilly Restaurant. Cocktails are at 6:00 p.m. The fee to attend is $10.00. A presentation will be delivered by Benjamin Dollar from KPMG on Government Assistance Programs for Corporations. If you plan to attend, contact David McBeth, C.E.T. at dmebeth@dillon.ca by April 14.

David McBeth, C.E.T. is Essex Chapter Chair: essex-chapter@oacett.org.
Near North Chapter
The 40th Annual Professional Engineers’ Day Symposium was held on January 29th. The event, which is held with the North Bay PEO Chapter was very well attended and included presentations on sustainability, mining regulations and public policy. The North Bay Nugget featured a supplement on the event which included an article on OACETT and engineering technology. André Tar dif, C.E.T. helped put the event together as part of the planning committee.

The North Bay PEO Chapter, in conjunction with the Near North Chapter of OACETT is hosting its Annual Spring Fling on April 24, a fundraising event with all proceeds going to the North Bay Association for Community Living. The evening will kick off with an elegant dinner catered by North Bay CFB personnel. Some of the event highlights will include card games, a silent auction, followed by a live auction which is known to create some very aggressive bidding.

Leslie Collins, C.E.T. is Chapter Chair for Near North: nearnorth-chapter@oacett.org.

Thunder Bay Chapter
On December 22 the Thunder Bay Chapter held an executive meeting and presented Dave Hodder, C.E.T., with a certificate of recognition for his service. Hodder has been a Thunder Bay chapter executive member since 1989 and was the regional secretary from 2000 to 2009. He has always been an advocate of OACETT and is passionate about the certification process. He has been the co-chair of the annual golf tournament for the last 10 years and sat on the organizing committee for the 1999 AGM held in Thunder Bay.

Cory Halvorsen, C.E.T. is Thunder Bay Chapter Chair: thunderbay-chapter@oacett.org

OACETT Technology Report Writing Seminar

An expert trainer will guide you through the nuts and bolts of preparing your Technology Report for your C.E.T. certification.

The seminar reviews all aspects of technology report writing, such as:

- Writing a Proposal Letter
- The Mechanics of Writing
- The Abstract
- The Body of the Report

Next Sessions:
Saturday, April 24 – Sunday, April 25
Saturday, May 15 – Sunday, May 16

Register at www.oacett.org or contact: Arlene Duval, 416-621-9621, ext. 255
aduval@oacett.org
Georgian Bay Chapter
Barrie Colts hockey game
The annual Barrie Colts hockey game on January 30 drew a record crowd of 83 OACETT and PEO members and guests. The event was so enjoyable that over 20 people stayed after the game to network and enjoy half price appetizers. This annual event keeps getting bigger and better.

Upcoming Events
Georgian Bay Annual General Meeting
Tuesday, April 20 at 7:00 p.m.
Royal Canadian Legion, 410 St Vincent St. in Barrie.
Come out and meet your local executives. Help plan our future events. Guest speaker TBA.

PowerStream’s LEED Gold Certified Head Office Tour
Tuesday, May 11 at 6:00 p.m. in Vaughan.
Come and see the first office building in York region to be certified LEED Gold (Leadership in Energy and Environmental Design)
Registration in advance, OACETT and PEO members only, limited space available.

21st Annual OACETT Georgian Bay Golf Tournament
Friday, September 17 at Hawridge Golf and Country Club in Orillia. $85 for members and $100 for guests

Brian Emery, C.E.T. is Georgian Bay Chapter Chair: georgianbay-chapter@oacett.org

York Chapter
The York Chapter held a technical presentation on Residential Subdivision Planning and Associated Building Services on January 16. Subdivision Planning and Implementation, TV/Internet Cabling, Electricity Supply and Leadership in Energy and Environmental Design (LEED) Certification were topics presented and discussed during the meeting.

Patrick Ng, C.E.T. is York Chapter Chair: york-chapter@oacett.org

Toronto Central Chapter
We would like to emphasize the need to keep your e-mail addresses up to date. There have been numerous e-mails returned with undeliverable addresses. E-mail is our fastest means of communicating with our members, so let’s work together to ensure its effectiveness. To update your e-mail address visit the member section of the OACETT website.
We are in the planning stages of events for 2010. For information on upcoming events, visit our chapter webpage at http://oacetttorontocentral.wiki.zoho.com/.

David Chow, C.E.T. is Toronto Central Chapter Chair: debowett@gmail.com

Toronto West Chapter
Upcoming Events
Wednesday, April 21
Toronto West Chapter AGM
New members’ reception and financial seminar
New Toronto Library, Alex J. Faulkner Community Room
110 11th Street, Toronto

Roy Sue-Wab-Sing, M.Eng, C.E.T. is Toronto West Chapter Chair: roy.oacett@gmail.com

Peel Chapter
Mark Burke, the Sales and Marketing Manager led the plant tour. Following the tour, Burke delivered a very informative presentation on the company’s core business and various technological processes. The tour was organized by Peel chapter executive member Mario Pretto, C.E.T. Peel Chapter would like to thank Indalco Alloys Inc. for the tour of their facility.

Peel Chapter visit to GTAA Automated People Mover System
Peel chapter executives and committee members visited the Greater Toronto Airports Authority (GTAA) to learn about the complexity of the Automated People Mover (APM) Link
System in the fall. Iouri Moutine, C.E.T., GTAA Manager, People Moving Devices, organized and facilitated the tour. Visitors saw the systems in action and the maintenance and operations involved in ensuring the continuous safety of passengers. They were also shown the in-house machine shop, maintenance section and essential spare parts, power supply feed from the grid, simovert AC drives and back up diesels installed for running the facility.

There are various components involved in running the trains. Two identical 850 KW motors work in tandem to pull the two trains. The bogies of each train cabin are clamped to a cable made of special alloy and polymers. The motors and bull wheels rotate this cable which enables the trains to run from station to station. The speed of the trains is controlled by the simovert active front end VFD and a controller in the central control room remotely operates and manages the movement of both trains.

The controller is also responsible for watching the passengers through closed circuit TV monitors, as they board and leave the trains. Multiple safety measures have been incorporated for the passengers using this system. For example, there are door opening and closing device sensors throughout each train, however, the final control is in the hands of the controller. The facility also has provisions set up for physically challenged passengers to help them get on and off the train safely.

Satis Sharm, C.E.T. is Peel Chapter Chair:
Sarn786@yahoo.com

Niagara Chapter 4th Annual John A. Alton Memorial Hockey Tournament
The Niagara chapter would like to extend their gratitude to the Hamilton Chapter, Peel Chapter, the Western Region and all other participants in this year’s John A. Alton Memorial Hockey Tournament. Although the competition was very stiff, fellow members played with respect in a sportsman-like manner. After all, everyone had to work Monday morning! Players also participated in a 50/50 draw raising $208.00. Congratulations to Eric Flora, C.E.T. for winning $104.00. The remaining $104.00 will be donated to the Carole and George Fletcher Foundation.

Six games between four teams played out on Saturday January 23 with the final game on January 24. Although Hamilton dominated the first day of play, Niagara managed to pull it together to hold the championship title. Congratulations to the participants of Niagara for the 4th consecutive year as champions.

The tournament trophy plaque has been engraved and shall reside at OACETT’s head office. It was a great pleasure playing with such talented people. A warm thank you goes out to our hockey tournament referees, Bob Cole, C.E.T., and Larry Abomovitz, Brian Weber and Bob Kennedy.

We hope to see you next year at the 5th Annual John A. Alton Memorial Hockey Tournament.
Shawn Chickowski, A.Sc.T. is Niagara Chapter Chair:
Niagara-chapter@oacett.org


Quinte Chapter Annual General Meeting
The 2010 Quinte Chapter AGM is taking place at Linguini’s in Belleville on April 16 at 6:30 p.m. If you are able to attend, contact michellescornell@gmail.com. All members are encouraged to attend this event.

Michelle Stobbart-Cornell, C.Tech. is Quinte Chapter Chair:
quinte-chapter@oacett.org
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