



GBC INNOVATES!

GBC Innovates! brings you up-to-the-minute news on innovations in teaching and learning, applied research and field education, and partnerships developed to support our students

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Grabbing Big Air and Turning Heads

Tyler Krimmel

Beginning in Spring 2010, George Brown College partnered with Green Syndications Inc., an innovative Canadian company with engineered plans, and a vision, for developing a vertical axis wind turbine (VAWT) for "small wind" rural and urban applications.

The team, comprised of Professors Leo Salemi and Tyler Krimmel, along with Engineering students Andrew Stuart, Edward Wong, and Geodi Noble, have successfully developed an operational prototype, which is currently being tested for optimization. Andrew, Edward and Stewart are shown explaining their prototyping and testing process to a receptive crowd at the December 3rd Polytechnics Canada Showcase in Ottawa.

The students have been instrumental in collaborating directly with Green Syndications, which has led to the successes which have been achieved thus far.



Moving forward, the team will support Green Syndications Inc. through the patent process, and in the creation of a Canadian manufacturing facility for their VAWT unit, which will be sold globally.

Up-coming Events

ACCC Applied Research Symposium
March 22-23 | Victoria, B.C.
www.accc.ca

ORION Summit
April 18-19 | Toronto
<http://www.orion.on.ca/summit2011/index.html>

Polytechnics Canada Annual Meeting
*Leveraging Talent from Canada's Polytechnics:
Addressing Employer Demand for our Graduates*
May 5-6 | Vancouver, B.C.
<http://www.polytechnicscanada.ca/event/polytechnics-canada-annual-conference-2011>

OCE Discovery 2011
May 18-19 | Metro Toronto Convention Centre
<http://www.ocediscovery.com/>

P3: Public-Private Partnerships in the Canadian Construction Industry

Benjamin Valliquette Kissell

*Student of Construction Engineering Technologies
President of the Technology Student Network*

What first inspired me to pursue a research project on Public-Private Partnerships (PPP) in the Canadian construction industry was the Construction Law course I took in my fourth semester at George Brown College. The PPP topic was very interesting, but did not seem to have much coverage or available information specific to the Canadian construction industry. It was at this point I identified a “need” to develop information on the PPP subject area.

Since the project’s inception, I’ve had the privilege of attending the Canadian Council for Public-Private Partnership’s National Conference where I met such distinguished keynote speakers as Bob Chiarelli, Ontario Minister of Infrastructure.

My involvement with the Applied & Institutional Research division of George Brown College (AIR) has been a significant source of guidance and encouragement in following my academic aspirations. The practical nature of my project is enabling me to build on the theories and concepts learned in my classes by putting me in direct contact with the construction industry. Furthermore, the networking opportunities have opened up a world of connections related to my future vocation of construction engineering.

With the support of the AIR, I now have the foundation needed to continue my research across Canada. I am currently building my knowledge of PPPs through case studies and interviews with industry professionals. Beginning in May 2011 I will begin the extensive leg work of touring the major PPP projects currently underway across Ontario, and conducting high-profile interviews with Canadian construction leaders and political authorities behind PPPs in Canada.

The project outcomes will include:

- An introduction to Canadian PPPs
- Definitions of the current models
- Critical issues faced with PPPs
- The Project Manger’s role
- Case studies

The goals I aspire to achieve include:

- Complete the first study on the impacts of Public-Private Partnerships in the Canadian construction industry
- Include my research in the George Brown College curriculum to help prepare graduates for the current Canadian construction market
- My most auspicious goal is the complete my first published book based on this research

For more information on this project, please contact Benjamin at:

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Improving Corporate Productivity and Innovation 2011

Dawn Davidson

On February 23 and 24th Dawn Davidson of the GBC Research Office attended *Improving Corporate Productivity and Innovation 2011* at McGill University. The conference, presented by the Conference Board of Canada and the Desautels Faculty of Management, brought together business and government leaders, decision makers, academic experts and leading researchers to showcase best practices, government policy and its impact on organizational performance, and recent research outcomes on productivity and innovation. Highlights of the event included Jean-René Halde, President and CEO of the Business Development Bank of Canada, speaking on the importance of incremental innovation in Canada; a talk by Eric Gales, President of Microsoft Canada, that encouraged Canadian businesses to foster a strong organizational culture of intelligent risk-taking in order to encourage innovative thinking; and IBM Canada’s Raymond Leduc, Director of Bromont Manufacturing, sharing how IBM is making their business as smart as their employees and IBM’s Smarter Planet initiative. Towards the conclusion of the conference Dan Munro, Senior Research Associate of the Conference Board of Canada delivered his report on how Ontario colleges are helping businesses overcome barriers to research and innovation. Dan drew on key examples from GBC collaborative research projects to illustrate how Ontario colleges are accelerating innovation.

GBC at the Launch of the Toronto Regional Innovation Centre

Dawn Davidson

On February 9th, the Honorable Glen Murray, Minister of Research and Innovation, launched the Toronto Regional Innovation Centre (RIC) at MaRS Discovery District. The Toronto RIC is part of the Ontario Network of Excellence (ONE), a network of 14 regional innovation centres across the province that help local entrepreneurs bring innovative ideas to market. GBC was there along with our partners Tenet Computer Group Inc. and Bridgepoint Health to showcase a collaborative research project that brings emergency preparedness to mobile devices. Tenet's PINpoint application facilitates cooperation and coordination during emergencies, by ensuring that users always have up-to-date information stored in their BlackBerry smartphones, including critical documents and contact lists. PINpoint automatically



The Honorable Glen Murray, Minister of Research and Innovation chats to Carlos Paz-Soldan.

collects information from internal or external systems, and pushes it to designated BlackBerry smartphones. Pushed information is stored in the BlackBerry smartphones' cache memory, thus ensuring that it will be available when users need it, even if systems are down or unreachable.

The collaborative project led by Pat Marten-Daniel put Tenet's emergency management software to the test in a full pandemic simulation at Bridgepoint Health. The Honorable Glen Murray and several local MPPs visited the GBC booth and spoke with Carlos Paz-Soldan, President of Tenet Computer Group Inc. about the collaboration and the successful launch of his new product. Later, the Minister delivered a passionate speech about Ontario's local innovators.



From left to right, Sylvia Brachvogel, Clinical Director at Bridgepoint Health, Carlos Paz-Soldan, President of Tenet Computer Group, Pat Marten-Daniel, Chair of the GBC Centre for Continuous Learning, and Andrew Stuart, recent graduate of the GBC Mechanical Engineering Program.

George Brown College's Submission to Expert Panel on Federal Support for R&D

Robert Luke

The George Brown College Submission to Expert Panel on Federal Support for R&D is available in full <https://archive.georgebrown.ca/handle/10299/234>. Our submission was developed in consultation with our Innovation Advisory Board. A summary of our most important recommendations is as follows:

- The government should support the full range of R&D and innovation activities as defined by the OECD.
- A Canadian innovation strategy is needed to support business innovation. This strategy should include leveraging post-secondary institutions (PSIs) for innovation support and access to R&D equipment.
- Government should support clusters to support firms. Orient marketing, outreach and funding programs to the needs of industry and foster greater complementary linkages among all PSIs.

- Expand the definition of highly qualified personnel and implement Conference Board of Canada recommendations on developing national innovation education requirements and linkages.
- Continue and expand the suite of programs under the College and Community Innovation Program umbrella.
- Streamline application processes and forms, encourage complementary PSI business innovation supports, and reduce overlap and increase cooperation among federal and provincial agencies.
- Provide an "any point of entry" contact point for all involved in supporting business innovation.

We look forward to the final recommendations of the Panel.

Teaching and Learning: Measuring the Impact of Teaching Innovation Literacy

Erin Jones

Currently in Canada, we are facing an “innovation deficit”. The Conference Board of Canada (CBoC) ranks Canada as 14th out of 17 countries in innovation, and The Organisation for Economic Cooperation and Development (OECD) and Global Insight have drawn similar conclusions regarding Canada's weak position in terms of innovation capacity and performance. Global Insight assigned a rating of “C-”, its lowest rating, to Canada's 'Capacity to innovate'.

Much innovation-related research and development has focused on technology, yet the OECD defines innovation as more relating to people. Our best way forward as a system is the integration of applied research in curricula, thereby teaching innovation literacy skills to a wider workforce .

The recent OECD article on [workforce skills and innovation](#) offers solid evidence for this integration, stating that “achieving high academic standards within a country for the largest proportion of school students not only supports high participation in post school education and training but creates a workforce with greater potential to engage productively with innovation”.

The college applied research system is well positioned to play a lead role in strengthening national and regional capacity to innovate, working with research centres and industry partners to enhance competitiveness in the sectors we serve. Our educational programs are enhanced by applied research conducted with industry partners, mobilizing our faculty, students and facilities to assist industry in new product, process and service development, prototyping, and testing.

To date there is little evidence of colleges’ collective impact, effectiveness, and capacity to strengthen Canada’s weak record on innovation. One exception is the recent CBoC report on applied research in Ontario that offers important information on the role that colleges and polytechnics play in the Canadian innovation system. Another recent Higher Education Quality Council of Ontario study on Work-Integrated Learning for Ontario colleges includes applied research projects that have direct and positive impacts on students and industry.

George Brown College is leading a new, multi-site research study on behalf of a consortium of 19 partners. The study will investigate the impacts of engaging college faculty and students in partnered applied research activities and study the development of **innovation literacy** acquired by Canadian students through work on applied research. Innovation literacy includes research, development, problem solving, leadership and entrepreneurial skills, along with the ability to recognize innovation in work contexts. This makes our graduates content experts in their fields, but also expert learners, able to adapt to our changing world.

Our work leading this partnership will enable colleges to gain a better understanding of how applied research and innovation prepares our graduates for the world of work today, and for the jobs of the future. We understand the need to ensure that all people have the capacity to be innovative no matter their work context. *Empowering people to innovate* is a top OECD policy principle, and is key to creating an economy of innovation for the future of Canada.

Do you have a GBC Innovation success story or opportunity you’d like to share? Email Meadow Larkins (mlarkins@georgebrown.ca) your item for inclusion in our next newsletter.

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