



# Message from the Head

Dear Valued Reader

Happy New Year, I hope that you had a chance to relax and rejuvenate during the holiday season. Also, I wish you all the best for 2011. Last Fall, we welcomed the incoming second year students to their first course in the department (ENGO 333 – Computing for Geomatics Engineering) and in the Winter Semester they will have a chance to know more about Geomatics. Therefore, I would like to take this opportunity to welcome the students and wish them all the best in their new home department, where we will

do our best to provide a world-class geomatics education.

The department career day is scheduled to take place on February 3rd. This event is a good opportunity for our undergraduate students to meet companies and secure a summer or permanent employment. Similar to last year, this event will be also announced to First Year Engineering Students. We are expecting to have more companies participating in this event than we had last year. On behalf of the Department, I would like to thank the Geomatics

Engineering Student Society (GESS) and Career Day Commissioners for their hard work and dedication in preparing for this event. This Winter, we will be hosting the annual meetings of the Geomatics Engineering Liaison Committee (GELC) and the Geomatics Engineering Advisory Committee (GEAC) on February 2nd and March 17th, respectively. I will keep you posted about those meetings in the next newsletter.

Dr. Ayman Habib  
Professor and Head

## Mr. David Parker New Chair for GEAC

We would like to welcome Mr. David Parker, the new Chair for the Geomatics Engineering Advisory Committee (GEAC). David Parker is the Vice President and General Manager at WorleyParsons Peru S.A.C.

David is a Canadian engineer with more than 25 years proven experience in engineering project and business management, working primarily in the petroleum hydrocarbon energy sector. He has worked in management and executive roles for several large international corporations including TransCanada Pipelines, NOVA Gas Transmission, AMEC Engineering & Construction, Colt Engineering and WorleyParsons.



Mr. Parker holds degrees in Civil Engineering and Business Administration. He is registered as a Professional Engineer in Alberta, Canada. He is a past president of the Alberta Chapter of the Geospatial Information and Technologies Association.

We would also like to thank Dr. Mohammed Abousalem, GEAC's previous chair, for his service in this role.

### Inside this issue:

Congratulations	2
Other News	2
Research Spotlight	3
Alumni Voice	3
Department Activities	4
Coming Events	4

# Congratulations

• Congratulations to students who completed their graduate studies: Mohammadreza Zaheri, MSc; Wei Gu, MSc; Anshu Pahadia, MSc; Sonam Jamtsho, MSc; Mohammed Dabboor, PhD; Jared Bancroft, PhD; Shuang Du, MSc; Lynn Raaflaub, PhD.



*Mohammed Dabboor successfully defended his PhD thesis*

• Dr. Mark Petovello was this year's recipient of the Teaching Excellence Award for third and fourth year courses in

Geomatics Engineering. The award was presented by the University of Calgary Engineering Students Society at their annual Third and Fourth Year Dinner.

• The Canadian Institute of Geomatics is pleased to announce the appointment of Dr. Matthew Tait, PEng as President for the year 2010-2011. Dr. Tait is Manager of Pipeline Geomatics for WorleyParsons Canada located in Calgary, and is a former faculty member of the Department of Geomatics Engineering at the University of Calgary. Dr. Tait brings to the Institute a new energy for renewal and an interest in the certification of those involved in the geomatics sciences. The appointment was made at the recent Annual General Meeting held in conjunction with the Geomatics Atlantic 2010 Conference held in Fredericton.

The Canadian Institute of Geomatics is the Canadian association that represents the interests of all groups in the geomatics community and is the Canadian member to

the International Federation of Surveying (FIG), the International Society of Photogrammetry and remote Sensing (ISPRS) and the International Cartographic Association (ICA).

• Dr. Mark Petovello was named to Avenue Magazine's 2010 List of Top 40 Under 40. The annual list identifies people with strong achievements in career and community work, as well as community and volunteer involvement in Calgary and abroad. Dr. Petovello was named to the list for his work in GNSS navigation and his participation in various outreach activities.

For the full List of Top 40 Under 40 please see:

<http://www.avenuecalgary.com/top40>  
(includes video interview)

<http://www.ucalgary.ca/news/utoday/october29-2010/top40>

## Other News

• The Geomatics Graduate Group (G<sup>3</sup>) is our department's graduate students' association. Its main purpose is to promote social activities amongst the graduate students. It is officially registered at the GSA, and it gets a small budget to finance activities. This year's executive are as follows: President—Jacky Chow; Vice President—Andres Ortiz; Treasurer—Ivan Detchev and Secretary—Eunju Kwak.

• Women in Engineering Day is scheduled for Thursday, February 24, 2011. Women in Engineering Day is an interactive and fun annual event designed to introduce Grade 10 and 11 young women to career opportunities in engineering as well as convey the social value and relevance of engineering disciplines. Components include information on engineering and its diverse fields, an interactive and fun design competition, department demonstrations, lunch, an engineering student life presentation, and a lively and informative panel discussion led by successful female engineers from industry.

• PURE 2011 Award Information and Application: The University of Calgary believes that teaching and research are interrelated activities. Teaching is based on research; learning includes research experience; and research generates new knowledge. Consequently, undergraduate students should have opportunities to do research of their own and to participate in and learn from existing faculty research.

Such research opportunities express the university's commitment to experiential learning. They also encourage undergraduates to consider applying for graduate studies and undertaking careers in research and teaching.

While research opportunities are available through students' course work, the university believes that qualified students should also have the opportunity to experience research as an activity outside the classroom. Especially important are opportunities which provide extensive periods of time to focus on research projects of interest to the student and which

fit into existing research activities in the University.

Undergraduate students planning to pursue graduate studies should have opportunities to learn how to write research proposals, seek research funding, undertake or participate in substantive projects, learn discipline-specific skills, and report research results.

PURE awards are meant to benefit students at any stage of their undergraduate program, and applications from students in the early stages of their program are strongly encouraged.

# Research Spotlight

## Open Data and eGovernance

Article by Andrew Hunter (GIS and Land Tenure)

As economies become more knowledge driven, the infrastructure underpinning knowledge creation, maintenance and use becomes increasingly fundamental to the functioning of the economy (ACIL Tasman, 2009). From this perspective spatial data infrastructures (SDI) are an important component of a municipal governments' knowledge infrastructure (Daniels, 2002). This type of infrastructure goes beyond infrastructure in the traditional sense of roads and buildings to include investments that increase options to create, share and use knowledge.

SDIs tend to focus on technology, but at their core they deal with relationships within and between organizations, and rules of exchange accepted by those involved in the creation, maintenance and use of geospatial data. These components address interoperability at the political / human level and relate to policies required by an organization to disseminate and maintain geospatial information (Harvey, Kuhn, Pundt, Bishr, & Riedemann, 1999; Miller, 2000; Williamson, Wallace, & Rajabifard, 2006).

Today, eGovernance dominates many municipal government agendas as they strive to be more open, more transparent, more citizen-centric, and better facilitators of innovation. The OpenData movement would suggest that these ideals can best be achieved by making data used for decision making web accessible. Some municipalities have attempted to resist this

call only to find that the Courts tend to favour the release of publicly funded data because municipalities do not generally carry the risk of the investment made to create the data, the public do (*Landmark v. Amsterdam City*, 2009). Neither do municipalities have a *sui generis* nor "sweat of the brow" right to information gathered as part of a public function, as generally there is little risk to a municipality regarding the release of facts, whereas there can be substantial risk to the public given a municipalities role in "property tax assessment, issue of permits, treatment of tax delinquent properties, equitable deployment of public services, issuance of zoning variances (*CFAC v. Santa Clara County*, 2009, p. 21). Additionally, *CFAC v. Santa Clara County* (2009) concluded that there is little risk to security should a municipality release its geospatial data given the volume of geospatial data that is now available through other existing online sources, albeit of generally lower quality. The Supreme Court of Arizona has also ruled in *Lake v. City of Phoenix* (2009) that if data is to be released to the public then metadata should also be provided so that users are able to interpret the data appropriately.

These cases are reshaping the way that municipalities view public information — from private silo to municipal resource. A resource to which the public should have open access so that the economic and social value of the data can be maximized. In essence, the principles of good governance are designed to build trust,

which will create a more connected public whose needs will inform the development of more effective policy and services, which will further strengthen trust (Brakebill, 2007) and therefore promote a self-renewing high performance government. Good eGovernance can be enhanced through the specification of relevant standards and policies for disseminating geospatial data, but municipalities must also develop programs that integrate the standards into their business, operational and financial plans. This will ensure that sufficient resources and tools can be made available to demonstrate geospatial governance and accountability. Additionally, any geospatial governance approach must be inclusive. This demands that governance policy cannot be developed entirely behind closed doors. All geospatial stakeholders must be given the opportunity to participate in the identification of geospatial data for release to the public, and the types of mechanisms that should be used for the distribution and use of geospatial data.

The integration principle of good governance can be addressed by designing and implementing policies and procedures that consider local needs as well as provincial and federal conditions. In effect, the policy framework must simplify the transfer of information horizontally within a municipality, i.e., between municipal departments, and vertically between different levels of government. Given the federal government's recent adoption (Treasury Board of Canada,

*continued on page 4*

## Alumni Voice

After graduating from the undergraduate programme in 2004 I continued my studies at University of Plymouth for a masters degree in Hydrography. The excellent academic foundation from the University of Calgary gave me the opportunity to write a thesis that built a mathematical model for the error propagation in dual head multibeam survey systems commonly used on the UK Royal Navy shallow water survey boats.

Hungry for travel and interesting projects I started working as an Offshore Surveyor for Subsea7 Aberdeen with assignments in all corners of the world. After a small stop

as a support engineer for Coda Octopus, a hydrography hardware and software developer in Edinburgh, I took up work with Fugro Norway as a Hydrographic Surveyor. Now, tired of airports and travelling I am back on the family farm working as a Geomatics Engineer for the Norwegian Mapping Authority where I take part in maintaining the national mapping databases.

My degree from University of Calgary has been a springboard to an abundance of opportunities in all corners of the world. The concentration of excellent geomatics

scholars at UofC is truly staggering and I am utterly grateful for being able to take part in this environment.



Christian Malmquist, BSc 2004



**DEPARTMENT OF GEOMATICS  
ENGINEERING**

Schulich School of Engineering  
University of Calgary  
2500 University Dr. NW  
Calgary, AB Canada T2N 1N4

Phone: 403 220 5834  
Fax: 403 284 1980

Email: [geomatics@geomatics.ucalgary.ca](mailto:geomatics@geomatics.ucalgary.ca)

*A Passion for Excellence*

We're on the web:  
[geomatics.ucalgary.ca](http://geomatics.ucalgary.ca)

2009) of ISO 19115 (2003) and ISO 19128 (2005) these standards should logically be included into a geospatial policy framework. To meet the capability principle the governing organization must ensure that adequate tools are made available to support all aspects of municipal geospatial governance and that there are sufficient skilled staff available to implement and/or manage the policies and tools developed.

Lastly, good governance requires that the governing organization takes a systematic approach to self-assessment to ensure that the geospatial governance policy framework remains adaptive to changing internal and external requirements.

*1 Facts cannot be copyrighted, but the "sweat of the brow" doctrine enables a creator to protect their work even if it is completely unoriginal (Tele-Direct v. ABI, 1997; CCH Canadian Ltd. v. Law Society of Upper Canada, 2004).*

## Department Activities

Thank you to all of you who came to the Geomatics Christmas party December 20th. The party was a great success. Thank you so much for all your wonderful, tasty food contributions!

We had a lot of fun deciding on the winners for the food contest. They were:

First Place - Mohannad Al-Durgham for his amazing Jordanian feast

Second Place - Shammi Akther for her tasty Bengali sweets

Third Place - Sara Saeedi for her delicious Persian dish

A very special thank you to Veronica Crane, Derek Lichti's wife, for organizing and supervising a wonderful craft for all the kids. They loved it, and it really helped to make the evening special.



## Coming Events

- GELC Meeting - Wednesday afternoon, February 2, 2011
- ALSA Beef on a Bun night - Wednesday, February 2, 2011
- Geomatics Career Day - Thursday, February 3, 2011. Contact Tan at [tvarma@ucalgary.ca](mailto:tvarma@ucalgary.ca) or Natasha at [tasha\\_wk@hotmail.com](mailto:tasha_wk@hotmail.com) for more information.
- Reading Week (No lectures) - February 21—25, 2011
- Geomatics Awards Night - Wednesday, March 16, 2011 5:30 - 8:00 pm in MacEwan Student Centre Cassio A & B
- GEAC Meeting - Thursday, March 17, 2011 8:30 am - 4:30 pm
- April 15—Winter Term Lectures End.

### Sites to Visit:

- [http://www.statkart.no/eng/Norwegian\\_Mapping\\_Authority/](http://www.statkart.no/eng/Norwegian_Mapping_Authority/)
- <http://www.avenuecalgary.com/top40>
- <http://www.ucalgary.ca/news/utoday/october29-2010/top40>
- <http://www.worleyparsons.com>