

Message from the Dean

We are coming to the end of another successful school year in the Faculty of Engineering Architecture and Science (FEAS). In circulating iMPACT, we seek to highlight successes that our students, staff and faculty have achieved in Canada and internationally.

Yet as we look back on this term, I feel that it is also important to call attention to the passing of Mr. George Vari. A long-time friend and supporter of Ryerson University, Mr. Vari died at age 87. He was a distinguished engineer, developer, philanthropist and champion of education. Through the Vari Foundation, he and his wife Helen contributed five million dollars to establish the George Vari Engineering and Computer Centre at Ryerson. In 2007, Mr. Vari received an honorary doctorate from Ryerson, a Doctor of Engineering, Honoris Causa.

In closing, I would like to thank and congratulate all FEAS faculty, students and staff for their contributions to Ryerson's research and teaching excellence.

Sincerely,



Dr. Mohamed Lachemi, PEng
Dean
Faculty of Engineering, Architecture and Science

Appointments

Dr. Krishnan has been appointed Associate Dean, Research, Development, and Graduate Programs for the period of July 1, 2011 to June 30, 2016.

Dr. Heyd has been appointed Associate Dean, Undergraduate Science Programs and Student Affairs for the period of June 1, 2011 to June 30, 2016.

Dr. Salama has been appointed as the Centre for Urban Energy's (CUE) first Hydro One Visiting Distinguished Research Fellow for the year 2011.

A respected environmentalist with 25 years in senior management focused in the energy and electricity sector, Mr. Love has also been appointed as a Hydro One Visiting Distinguished Research Fellow.

Dr. Rahnema has been appointed Associate Director of the Digital Media Zone, effective immediately.

Dr. Upreti has been appointed Chair of the Department of Chemical Engineering, effective July 1, 2011.

Dr. Sennah has been appointed as Chair of the Department of Civil Engineering, effective July 1, 2011.

Faculty & Staff Awards

Grace Panourgias from the First Year and Common Science Office has received the FEAS Administrative Staff Service Recognition Award for Winter term of 2011.

Seventy percent of Post Doctoral Fellows who applied for a MITACS Elevate Post Doctoral Fellowship under the supervision of a FEAS faculty member received funding. As such, seven new Post Doctoral Fellows will be joining FEAS in 2011.

Prof. Stewart of the Department of Mechanical and Industrial Engineering has received this year's Faculty Service Award.

The 2011 Deans' Teaching Award recipients for the Faculty of Engineering, Architecture and Science are:

Dr. Anpalagan, Department of Electrical and Computer Engineering;

Dr. Easa, Department of Civil Engineering; and

Dr. Raahemifar, Department of Electrical and Computer Engineering.

This year's Faculty SRC Award recipients from the Faculty of Engineering, Architecture and Science are:

Dr. Behdinan, Department of Aerospace Engineering;

Dr. Fung, Department of Mechanical and Industrial Engineering;

Dr. Miri, Department of Computer Science;

Dr. Shaker, Department of Civil Engineering; and

Dr. Venkatakrishnan, Department of Mechanical and Industrial Engineering.

Dr. Wolfarrdt from the Department of Chemistry and Biology is one of two recipients of the Sarwan Sahota Distinguished Scholar Award.

In December 2010, Dr. Misis was awarded a Certificate of Appreciation as "Top Associate Editor" for IEEE Transaction on Vehicular Technology in 2010.

Events

The Department of Architectural Science recently hosted Forum, the annual convention of the American Institute of Architecture Students (AIAS). One thousand students and professionals from around the world attended the four-day event at the Fairmont Royal York. It was the biggest Forum ever hosted outside of the United States in AIAS' history.

Chairs in Design Engineering, Drs. Behdinan and Androutsos recently hosted the inaugural President's Lecture on Engineering Design. The lecture was delivered to over 900 first-year engineering students as part of the Introduction to Engineering course.

Ryerson's CUE undertook its first urban energy project with Anna University in Chennai, India, thanks in part to a grant it received from International Science and Technology Partnerships (ISTP) Canada. Bringing together Canadian and Indian academia and industry leaders, CUE and Anna University co-organized a two-day workshop in early January on the sustainability of urban electric systems.

Faculty Success

Dr. Li from the Department of Civil Engineering was awarded an NSERC Engage Grant for his project entitled, "Solar energy modeling and demonstration technology for urban buildings". The total awarded amount is \$25,000 from NSERC, plus \$7,205 in-kind from industry.

The Centre for Urban Energy (CUE) and industry partner Toronto Hydro Electric System Limited (THESL) recently awarded grants to five Ryerson faculty members totalling \$750,000. In addition, Hydro Ontario Networks (HONI) and CUE awarded seven grants to Ryerson faculty members totalling \$750,000.

Department of Electrical and Computer Engineering professors Drs. Umapathy and Yang each received three-year funding grants from the Canadian Institutes of Health Research (CIHR). Dr. Umapathy was awarded \$219,103 for his project entitled "Studying Dynamic Electrical Conduction Pathways in Understanding Human Ventricular Fibrillation", while Dr. Yang was awarded \$379,765 for his project entitled "Optical Coherence Tomography for Intraoperative Imaging during Skull Base Neurosurgical Procedures."

Department of Aerospace Engineering Professor Dr. Kumar has had his Tier 2 Canada Research Chair in Space Systems Engineering renewed.

Dr. Victor Yang, Department of Electrical and Computer Engineering professor and Canada

Research Chair, has received \$420,000 in funding from the Natural Sciences and Engineering Research Council of Canada (NSERC). The support comes through NSERC's Strategic Project Grants program.

Carrot City is an initiative started by Drs. Gorgolewski and Komisar from the Department of Architectural Science, along with Dr. Nasr from the Ryerson Centre for Studies in Food Security and Ryerson students. In the summer, a book entitled "Carrot City: Creating Places for Urban Agriculture" will be published by Monacelli Press.

Lisa Naccarato from CBC Radio interviewed Dr. Fernando and his team from the Department of Electrical and Computer Engineering about how their research helped in the rescue of the Chilean miners. The interview is available at: www.ee.ryerson.ca/~fernando/

Student Success

Civil engineering students Michael Corrado, Ahmad Jawabri, Michael Ragheb, Elizabeth Ramlochan and Lara Yousif won Ryerson's annual Civil Engineering Society Bridge Building Competition using popsicle sticks, toothpicks, dental floss and glue to build a bridge that nearly held the equivalent weight of a Smart car. The team will compete at the national championships in Montreal. Dr. Hossain is their faculty advisor.

Geomatic engineering students won the first four places at the Association of Land Surveyors Annual Research Posters Competition. The winning students are Hassan Ibrahim, PhD student (first place, \$1000), Wai Yeung Yan, PhD student (second place, \$750), Nagwa El-Ashmawy, PhD student (third place, \$500), Mohamed Elsobeiey, PhD student (fourth place, \$350). Ibrahim and Elsobeiey are supervised by Dr. El-Rabbany while Yeung and El-Ashmawy are supervised by Dr. Shaker.

For the first time ever, Ryerson engineering students won more awards than any other institution at the Ontario Engineering Competition (OEC), held at the University of Western Ontario on February 4-5. Biomedical engineering students Thiago Caires and Michal Prywata won first place in innovative design and also won the social awareness award for their project in developing a

brain-controlled, pneumatic full prosthetic arm. Fellow biomedical engineering student Peyman Moeini took second place in the innovative design category for his project in developing a program for scalable visual attention-based detection of abnormal regions in biomedical images. Aerospace engineering student Roman Dabrowski and civil engineering student Sasha Harpe took first place in OEC's parliamentary debate category.

The students represented Ryerson and Ontario at the Canadian Engineering Competition, held March 10-13 in Montreal. Caires and Prywata took second place in the innovative design category while Dabrowski and Harpe placed second in parliamentary debate.

Medical physics student Firas Almasri won third place at the 2011 Imaging Network Ontario Conference for her poster entitled, "Ultrasound and microbubble potentiated enhancement of chemotherapy in vitro: Effect of cell type and acoustic pressure", in the Cancer Challenge Program category. Almasri was supervised by Dr. Karshafian.

Civil Engineering students placed third overall in the 2011 Great Northern Concrete Toboggan Race in Edmonton, Alberta from January 26-30. The Ryerson squad won the Best Concrete Mix Award. The Ryerson team was led by captain Michael Ragheb, co-captain Alivia Alaica, concrete mix design leader Anto Sucic and Domenic Valle, technical support. Dr. Shehata was the team's faculty advisor.

To celebrate National Engineering Week, the Ryerson Engineering Student Society organized academic, social and charitable events. The students sought to raise \$6,000 for Sick Kids Hospital.

Twenty undergraduate and graduate students received student research awards to explore urban energy issues under the direction of a Ryerson faculty member. Ten of the awards resulted from a partnership between HONI and CUE while the second half resulted from a partnership between THESL and CUE.

Second-year architecture student Justin Oh won an honourable mention for his "Coalesce" design in the 2011 eVolo Skyscraper competition.