FROM THE DEAN

Dear faculty and staff,

It has been an eventful year for our Faculty in its academic mission and accomplishments. In this newsletter, we have highlighted our recent successes and great momentum gained in the area of collaborative research grants. It is also noteworthy to mention that as per Research Infosource we are ranked as Top Undergraduate University in the past fifteen years in terms of peer-reviewed publications and research income, and now we have moved into the Comprehensive University category. I congratulate our researchers and the support team in achieving this milestone, and positioning us very well for future SRC growth and impact. As the holiday season approaches us, I wish you all a well-deserved and restful break, and I look forward to seeing you in the new year.

Dr. Tom Duever, P.Eng., FCIC
Dean

STUDENT SUCCESS

AWARDS AND COMPETITIONS

AWARD

Graduate Open House Award

Ph.D. civil engineering candidate Michael Rostami won the first prize ($1,000) in the best student poster competition at FEAS Graduate Studies Open House held in the Mattamy Athletic Centre on November 3. The title of the poster was “Development of Cost-Effective TL-5 Concrete Bridge Barrier Reinforced with Glass Fibre Reinforced Polymer (GFRP) Bars.” Congratulations to Rostami and his supervisor, Khaled Sennah (Civil Engineering).

Michael Rostami being congratulated by Miljana Horvat, associate dean, graduate studies (Faculty of Engineering and Architectural Science)
FACULTY SUCCESS

HONOURS AND AWARDS
IEEE Toronto Section Appreciation of Service Award

Xavier Fernando (Electrical and Computer Engineering) received an award for sustained long-term leadership and support of the IEEE Toronto Section and its conferences, during the Section Annual General Meeting on October 29.

Above: Xavier Fernando (right) receiving his award of appreciation
Below: IEEE Toronto Section award plaque

EXTERNAL GRANTS

NSERC
COLLABORATIVE RESEARCH AND DEVELOPMENT

Ayse Bener (Mechanical and Industrial Engineering) received $200,000 for the project titled, “Analytics for Intraday Trading Data.” This project is also sponsored by the Ontario Centres for Excellence.


Alan Fung (Mechanical and Industrial Engineering) was granted $200,000 for the project titled, “Performance Characterization and Feasibility Analysis of Natural Gas Heat Pumps for Canadian Weather Conditions: Experimental and Numerical Investigations.” The co-principal investigators are Seth Dworkin and Wey Leong (Mechanical and Industrial Engineering) and the industry partners are Enbridge and Union Gas.

Ling Guan (Electrical and Computer Engineering) obtained $150,000 for the project titled, “Cloud-based Multimodal Biometrics Framework for Road Safety.”

CONNECT

Joon Chung (Aerospace Engineering) acquired funding of $5,000 for the project titled, “Enhancement of Human Machine Interface with Augmented Reality.”

ENGAGE

Ayse Bener (Mechanical and Industrial Engineering) obtained $25,000 and has teamed up with industry partner, Mozilla Canada Ltd, for the project titled, “Predicting Patch Quality.”

Xavier Fernando (Electrical and Computer Engineering) secured $25,000 and will work with industry partner, Nautic Devices Inc., for the project titled, “Range and Quality Enhancement of Full Duplex Wireless Mesh Transceivers.”

Sharareh Taghipour (Mechanical and Industrial Engineering) was granted $25,000 and has teamed up with industry partner, CHEP Canada, for the project titled, “Reliability and Availability Modeling and Failure Prediction of CHEP Inspection Lines and Improvement of Current Maintenance Policies.”
MITACS INC.
ACCELERATE GRADUATE RESEARCH INTERNSHIP PROGRAM

Kendra Schank Smith (Architectural Science) obtained $15,000 and has teamed up with industry partner, Ontario Association of Architects, for the project titled, “Consortium Architecture: Consortium Business Model Resources for Architectural Practices in Ontario.” Knud Jensen (School of Business Management, Ted Rogers School of Management) is her research project partner.

Seth Dworkin (Mechanical and Industrial Engineering) received support of approximately $13,400 for the project “Next Generation Engine.” Dworkin will partner with Siemens Canada Limited, the industry partner and Raymond Alexander, the intern.

ONTARIO CENTRES OF EXCELLENCE
VOUCHER FOR INNOVATION AND PRODUCTIVITY

Goetz Bramesfeld (Aerospace Engineering) was granted $25,000 and is working with industry partner, Aventech Research Inc., for the project titled, “Measuring Atmospheric Gusts at Low Altitude.”

Xavier Fernando (Electrical and Computer Engineering) was granted $25,000 in funding and approximately $15,300 in-kind support. Fernando has teamed up with industry partner, Nautic Devices Inc., for this project titled, “Enhancement of Full Duplex Wireless Transceivers.”

Xavier Fernando’s (Electrical and Computer Engineering) team has received $400,000 from Ontario Centers of Excellence and NSERC for their research project “Wireless Sensing and Tracking in Harsh, Low-Light Underground Mines” under the SOSEIP Smart Computing R&D Challenge program in November 2016. This project proposes to significantly improve safety, communications, tracking, and monitoring solutions for personnel, vehicles, and explosives in mines in collaboration with PBE Canada, a world leader in mine safety equipment. In addition to improving the workplace safety of miners, outcomes will also boost productivity by reducing downtime.

Mohammed Kianoush (Civil Engineering) received $25,000 and has partnered with H2Flow Equipment Inc., for the project titled, “Design of an Economical System for ISO Shipping Containers to Resist Gravity, Wind and Seismic Effects.”

Jinyuan Liu (Civil Engineering) obtained $26,000 and has teamed up with industry partner, Golder Associates Ltd., for the project titled, “Laboratory Investigation of Deep Soil Mixing in Treatment of Organic Clays in Ontario.”

Sharareh Taghipour (Mechanical and Industrial Engineering) acquired funding of $25,000 and has partnered up with Maintenance Assistant Inc. for the project titled, “Measurement and Quantification of Environmental Impacts of Equipment Maintenance.”

VOUCHER FOR INNOVATION & PRODUCTIVITY 2 (VIPII)
Ayse Bener (Mechanical and Industrial Engineering) acquired funding of $150,000 and has teamed up with industry partner, TMX Group, for the project titled, “Analytics for Intraday Trading Data.”

VOUCHER FOR INDUSTRY ASSOCIATION R&D CHALLENGE (VIA)

Dewei (David) Xu (Electrical and Computer Engineering) acquired funding of $80,000 for the project titled, “Next Generation Power Converters for Aerospace Applications.” The industry partner is Honeywell ASCa Inc., which also contributed $80,000 to the project.

OTHER FUNDING PARTNERS

CANADIAN INSTITUTE OF STEEL CONSTRUCTION
Khaled Sennah (Civil Engineering) secured $15,000 for the project titled, “Promoting Steel as a Material of Choice for Bridge Infrastructure: Current and Future Innovations.”

SIMENTIT INC.
Naimul Khan (Electrical and Computer Engineering) acquired funding of $125,000 for the project titled, “A Novel Augmented Reality Framework for Enriching Museum Exhibits.”

ST. MICHAEL’S HOSPITAL FOUNDATION TRANSLATIONAL INNOVATION FUND
Ayse Bener (Mechanical and Industrial Engineering) received $20,000 for the project “Impact and Relationship of Patient-related and Intra-operative Technical, Non-technical and Environmental Factors on Clinical Outcomes.”
Toronto and Region Conservation Authority

Darko Joksimovic (Civil Engineering and Ryerson Urban Water) obtained $71,000 and has teamed up with industry partner, Toronto and Region Conservation Authority, for the project titled, “Integrated Water Resource Evaluation Tool.”

York University

Jennifer McArthur (Architectural Science) secured $15,000 for the project titled, “Building Automation System Integration into a Cloud-based BIM-FM Model.” McArthur was also granted $10,000 for the project titled, “Data Analytics for Facilities Management.”

In the News

Gait Analysis Article

Sri Krishnan’s (Electrical and Computer Engineering) SAR group, along with researchers from INP Grenoble, France published a journal paper that was recognized as the Top article since 2015 in the area of gait analysis for biomedical applications. The citation is Baratin E., Sugavaneswaran L., Umapathy K., Ioana C., & Krishnan S. (2015). Wavelet-based characterization of gait signal for neurological abnormalities. *Gait Posture, 41*(2), 634-639.

Past Events

Connected X Event

The Research and Innovation Office in FEAS hosted nine companies on November 2. The connector, led by Dan McGillivray, was a forum for companies to summarize their work and research needs, and for FEAS faculty members to respond by identifying resources and/or potential areas of collaboration within the university. The discussions spanned transportation signals, infrastructure inspection technologies, and cloud storage of health data and big data. Representatives from several companies have expressed an interest in working with the Faculty in the new year.

International Symposium on Microgrids

Amir Yazdani (Electrical and Computer Engineering) chaired the international Symposium on Microgrids in Niagara-on-the-Lake, Ontario on October 20-21. The Symposium was the 12th event of the series of Symposium on Microgrids and hosted presentations, panels, and posters delivered by internationally-recognized experts in the area of microgrids from academia, industry, and governments. It was sponsored by Ryerson University, Lawrence Berkeley National Lab, and 13 notable Canadian and American corporations in the field of electric power systems and microgrids. Members of its local organizing committee were Amir Yazdani and Dimitri Androutsos (Electrical and Computer Engineering), David Begg (Ryerson International), and Nikoo Kouchakipour.

Participants of the International Symposium on Microgrids

Adamas University Visit

Parimal Chandra Biswas, dean, student affairs at the Adamas University, India visited the Faculty on December 14. The Faculty showcased the iBEST, and Centre for Urban Energy Schneider electric smart grid lab and and discussed collaboration.

Upcoming Events

RiO Coffee & Chat

The Research and Innovation Office will be hosting an information session on “Impact Factors, Open Access, Citations” on February 15, 2017 from 3-4 p.m. in room ENG 358. RSVP by email (rio@ryerson.ca) or form.

52nd Central Canadian Symposium on Water Quality Research

People in diverse fields of water quality management and research will converge at the Faculty of Engineering and Architectural Science on February 23, 2017 at 8:30 a.m.. A keynote speech by Glen Daigger (chief technology officer, CH2M Hill), presentations by other invited speakers, research poster exhibits, and student awards will be part of the Symposium. Information on registration and the call for abstracts is available on the [website](#).

Call for Newsletter Submissions

Please send success stories, grant award and competition notices to rio@ryerson.ca.