The CORS Bulletin

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IN THIS ISSUE

Dear CORS members,

The post-conference bulletin is always bursting with content, and this year is no exception. First, the issue features a summary of the recent changes to the CORS council, including a message from outgoing president, Taraneh Sowlati. In the address of the incoming president, Fredrik Ødegaard outlines important initiatives to help improve the society's finances and industry involvement in the coming year.

Next is a summary of the award winners from the 2015 CORS conference in Montreal, including photos and engaging write ups of the recipients. Congratulations to all the winners and thank you to the judges for their contributions. Next year's conference will take place in Banff National Park, from May 30 to June 1, so mark your calendars.

The issue also features the new budget for 2015-16, and the latest membership report. Lastly, the CORS Special Interest Groups recap their successful conference clusters and highlight upcoming events and changes for the new year.

If you have content you would like to see in the next bulletin, please submit it to me at AndreaFriars@gmail.com

Cheers,

Andrea Friars

Editor

THE 2015–2016 COUNCIL

CORS Council is made up of the Officers of the Society, four Councillors, the Immediate Past President, a representative designated by each local section of the Society, and the Standing Committee Chairs. Contact information for 2015–2016 Council representatives is provided below. For a complete listing go to www.cors.ca

President	Fredrik Ødegaard, University of Western Ontario, fodegaard@ivey.uwo.ca
Vice-President	Dionne Aleman, University of Toronto, aleman@mie.utoronto.ca
Secretary	Peter VanBerkel, Dalhousie University, peter.vanberkel@dal.ca
Treasurer	Sonia Vanderby, University of Saskatchewan, sonia.vanderby@usask.ca
Past President	Taraneh Sowlati, University of British Columbia, taraneh.sowlati@ubc.ca
Councillor	Manish Verma, McMaster University, mverma@mcmaster.ca
Councillor	Satyaveer Chauhan, Concordia University, Satyaveer.Chauhan@concordia.ca
Councillor	Tatsiana Levina, Queen's University, tlevin@business.queensu.ca
Councillor	Michael Pavlin, Wilfrid Laurier University, mpavlin@wlu.ca
Atlantic	Claver Diallo, Dalhousie University, claver.diallo@dal.ca
Quebec	Irène Abi-Zeid, Université Laval, irene.abi-zeid@osd.ulaval.ca
Montréal	Louis-Martin Rousseau, École Polytechnique de Montréal, louis-martin.rousseau@polymtl.ca
Ottawa	Dragos Calitoiu, Bank of America, Ottawa, calitoiu@optimod.ca
Kingston	Jeffrey I. McGill, Queen's University, jmcgill@business.queensu.ca
Toronto	Joseph Milner, University of Toronto, milner@rotman.utoronto.ca
SW Ontario	Fredrik Ødegaard, University of Western Ontario, fodegaard@ivey.uwo.ca
Winnipeg	Currently vacant
Saskatoon	Winfried Grassmann, University of Saskatchewan, grassman@cs.usask.ca
Calgary	Mozart Menezes, University of Calgary, mozart.menezes@haskayne.ucalgary.ca
Edmonton	Armann Ingolfsson, University of Alberta, armann.ingolfsson@ ualberta.ca
Vancouver	Stuart Donald, University of British Columbia, stuart.donald@sauder.ubc.ca
Toronto Student	Justin J. Boutilier, University of Toronto, j.boutilier@mail.utoronto.ca
Waterloo Student	Saul Qishu Cai, University of Waterloo, saulcai@hotmail.com

CORS ANNUAL CONFERENCE
MAY 30 – JUNE 1, 2016, BANFF, AB

RECENT CHANGES TO COUNCIL AND COMMITTEES

Post	Previous	New
Council		
President …………………………………	Taraneh Sowlati	Fredrik Ødegaard
Vice-President …………………………...	Fredrik Ødegaard	Dionne Aleman
Secretary ………………………………...	Dionne Aleman	Peter VanBerkel
Treasurer ………………………………...	Navneet Vidyarthi	Sonia Vanderby
Past President …………………………...	Corinne MacDonald	Taraneh Sowlati
Councillors ………………………………..	Xuan Zhao, Robert Allie Sonia Vanderby, Manish Verma	Manish Verma, Satyaveer Chauhan Tatsiana Levina, Michael Pavlin
Standing Committees		
Awards …………………………………….	Fredrik Ødegaard, Xuan Zhao, Manish Verma	Dionne Aleman, Manish Verma, Michael Pavlin
Membership ……………………………...	Xuan Zhao	Michael Pavlin
Past Presidents Advisory Board ………	Taraneh Sowlati, Corinne MacDonald, Peter Bell, David Martell, Richard Caron	Taraneh Sowlati, Fredrik Ødegaard, Peter Bell, David Martell, Richard Caron
Program …………………………………..	Fredrik Ødegaard, René Séguin, Louis-Martin Rousseau	Dionne Aleman, Louis-Martin Rousseau, Marco Bijvank
Public Relations …………………………	Robert Allie	Fredrik Ødegaard
Publications ……………………………...	Samir Elhedhli, Andrea Friars, Armann Ingolfsson	Samir Elhedhli, Elkafi Hassini Andrea Friars
SIG ……………………………………….…	Fredrik Ødegaard	Dionne Aleman
Ad hoc Committees		
Practice Prize ……………………………	Richard Caron	TBA
Analytics …………………………………	Elkafi Hassini, Mehmet Begen, Robert Allie	Tatsiana Levina, Peter Bell, Marie-Claude Côté
Financial Planning ………………………	Navneet Vidyarthi, Corinne MacDonald, Taraneh Sowlati, Fredrik Ødegaard	Sonia Vanderby, Taraneh Sowlati, Fredrik Ødegaard, Dionne Aleman
Award of Merit ……………………….....	Corinne MacDonald, Pierre L'Ecuyer, Derek Atkins	Taraneh Sowlati, Tamás Terlaky, Pierre L'Écuyer
Nominating ………………………………	Corinne MacDonald	Taraneh Sowlati
Travelling Speakers Program ………….	Corinne MacDonald	Taraneh Sowlati
IFORS Representative …………………	Dionne Aleman	Peter VanBerkel

OUTGOING PRESIDENT'S MESSAGE

Dear CORS Members,

It has been a great honour to serve as the president of our society for the past year. First, I would like to thank all of you for attending this conference and also thank the organizing committee especially Louis-Martin Rousseau, Bernard Gendron and Michel Gendreau for all their hard work in creating this great event.

Next, I'd like to report the activities accomplished by the Council this past year. Similar to previous year, the Council has worked on tasks related to finances, membership, CORS Diploma, and CORS awards. I'm happy to inform you that they have also worked on new initiatives and activities related to our journal INFOR, industry involvement and analytics to broaden our membership and strengthen our society. The changes and new plans for INFOR were just mentioned by the Publication Chair, Samir Elhedhli.

Another change made by the Council was the establishment of an ad-hoc committee to increase industry involvement. The committee explored various ideas and potential offering that would be valuable for the industry. Based on the feedback from the Past Presidents Advisory Committee, we plan to start including sessions, tutorials and plenary talks related to analytics to next year's annual conference. The committee will continue working on this issue during the coming year and I encourage you to please contact us if you have any suggestions or comments in this regard.

On a related topic, the Council approved the proposal to hire a professional conference planner for next year's conference to increase the conference participation and consequently our profit. This is a one-year contract, but based on the outcome, it could become an established practice for future conferences which would bring continuity to our conferences and would make the planning easier for the organizing committee.

As you heard from the treasurer report, the Council approved an increased funding of $8,000 for graduate students attending the CORS conference this year. The plan is to move in the same direction and give the graduate student funding a high priority every year. The amount of funding will be decided and approved by the Council each year.

In closing, I would like to take this opportunity to thank everyone on the Council: Dionne, Corinne, Fredrik, Sonia, Robert, Xuan, Manish, Navneet, Mehmet, and Samir, and our bulletin editor Andrea. I would welcome our new president, Fredrik Ødegaard, our new secretary and new councillors and wish them all the best in the year ahead.

Thank you very much.

Taraneh Sowlati

ADDRESS OF THE INCOMING PRESIDENT

Greetings Colleagues,

First of all, a big "Big Up" to the Montreal organizing committee for yet another great annual CORS conference (Rousseau et al. 2015). I hope you all enjoyed some stimulating talks, great company, and the scenes of la magnifique Montréal. Thanks too to our partner INFORMS for co-hosting the event and handling much of the logistics and administration.

It is a great honor to serve as your President and it is with much excitement that I look forward to the year. CORS is a great community and has, since my first interaction at the 2003 conference in Vancouver, provided me personally with many services and countless memories. I am glad to reciprocate and hope that under my leadership CORS can provide as much of a scholar platform for you as it has done for me. However, keep in mind that the network effect and ROI is directly proportional to your involvement, i.e. stay active!

My plans for the upcoming year are to continue the initiatives that former Presidents and Council members have been pushing, in particular with respect to our journal INFOR, SIGs, industry involvement and "expansion" to Analytics, student engagement, and financial stability.

Let me briefly expand on a couple of these.

It may seem odd that an organization like CORS, with its rather stable membership and relative lucrative conference revenues, would have financial instability. I certainly agree that as a non-profit organization with most administration done on a voluntary basis, CORS should be able to operate at a small but steady positive profit. The key to this is to turn our main stochastic incomes and expenses into sub- and super-martingales, respectively – rather than the reverse. Having served six years with Council I have been part of a number of initiatives to do precisely this. For instance, while conference revenues may appear solid, net profits have not always been that great. However, together with former conference organizers, we now assist in budgeting and planning such that each year provides a positive profit.

Regarding industry involvement, while CORS is a great academic community with many benefits, we have been a bit lax in extending the "value proposition" to our industry and practitioner colleagues. As academics we tend to perhaps lose sight that the 'O' in CORS stands for 'Operational' and that most classic OR problems are applied problems. Furthermore, OR has never been "hotter" in industry and media than it is today - of course most non-OR'ers don't recognize the term "Operations/Operational Research" but rather the buzz-word Analytics. And so now, after more than 60 years in the back-offices of obscure departments, we – the OR'ers - are finally given our time in the sun. I therefore see it as a natural progression to have

a more active industry involvement for our mutual benefit. A good starting point would be some industry specific sessions or perhaps even a cluster at the CORS conferences.

Canada produces a vast array of impressive OR work and CORS has numerous world renowned OR experts as members. This, in my opinion, is enough to support a top, internationally recognized OR journal. Not coincidentally we have a good, internationally recognized and indexed journal – INFOR. I would like to thank both the former Editor-in-Chief, Bernard Gendron, and the current co-EICs, Samir Elhedhli and Elkafi Hassini, for their relentless efforts and success thus far. The next step is to bring up INFOR's stature and move from good to great. However, this can only be done through our collective efforts by submitting good articles, providing outstanding referee reports, and giving proper recognition to INFOR papers at P&T evaluation, grant review, etc.

I would like to conclude by thanking the outgoing CORS Council members Robert Allie (Weston Foods), Corinne MacDonald (Dalhousie), Navneet Vidyarthi (Concordia), and Xuan Zhao (Wilfrid Laurier) for their time and commitment.

I would also like to give a warm welcome to our newly elected Council members Satyaveer Chauhan (Concordia), Tatsiana Levina (Queens), Michael Pavlin (Wilfrid Laurier), and Peter VanBerkel (Dalhousie), whom together with Dionne Aleman (Toronto), Mehmet Begen (Western), Samir Elhedhli (Waterloo), Elkafi Hassini (McMaster), Sonia Vanderby (Saskatchewan), and Manish Verma (McMaster). I look forward to a productive, engaging and fun year.

Last but definitely not least, I would like to give an extra special thanks to Taraneh Sowlati for her hard work and dedication as President and extend my advance thanks for supporting me this upcoming year as Past President.

I look forward working with and for you all, and if you have any ideas or comments then, by all means, tweet me: @CORS_President

Fredrik Ødegaard

COUNCIL CORNER

This section of the CORS Bulletin will highlight recent discussions by the CORS Council and motions of particular interest that have been passed.

- We contracted a web developer to have the new website launched by the end of the year.

2015 CORS AWARD WINNERS

Congratulations to the following winners of the awards and prizes presented at CORS/INFORMS 2015 in Montreal, QC. Special thanks to all the participants and to the judges. More details on all CORS awards and prizes, including a complete list of past winners, can be found by visiting the CORS website (www.cors.ca).

Prize	Recipients
Harold Larnder Prize	**Matteo Fischetti**
The CORS Award of Merit	**Tamás Terlaky**
Omond Solandt Award	**AD OPT Technologies**
The CORS Service Award	**Bill Simms**
The CORS Practice Prize	**Guoqing Zhang, Nooshin Nekoiemehr, Qiqi Zhang, Anqi Chen (University of Windsor); Jérôme-Olivier Ouellet, Jean-François Pagé, Adam Dudar (Air Canada)** *"Modeling of the Air Cargo Network Flow Optimization"*
Student Paper Competition	<u>**Open Category: First Prize**</u> **Amir Rastpour**, University of Alberta *"Modeling Yellow and Red Alert durations for ambulance systems"* <u>**Open Category: Honourable Mention**</u> **Vahid Roshanaei**, University of Toronto *"Coalitional operating room planning and scheduling"* <u>**Undergraduate Category: First Prize**</u> **Zahra Bodla, Ahad Ismail, Ra¹d Daoud, AbdulRehman Shaheen** University of Waterloo *"Redesigning Fischer Canada's Facility Layout and Scheduling Operations"* <u>**Undergraduate Category: Honourable Mention**</u> **Jordan Moreau, Ian Gresel, Andrew Scott, Mohamed-Akeel R. Hasham** University of Waterloo *"Feeding Iqaluit: A Consolidated Shipment Ordering System"*
CORS Forestry SIG David Martell Student Paper Prize in Forestry	**Claudia Cambero**, University of British Columbia *"Strategic optimization of forest residues to bioenergy and biofuel supply chain"*
CORS Queueing Theory SIG Student Paper Prize	**Yaofei Xiong** *"Perfect sampling of a single server queue with periodic Poisson arrivals"*

2015 Harold Larnder Award Winner:
Matteo Fischetti

Matteo Fischetti is a Professor of Operation Research at the Department of Information Engineering, University of Padova, Italy. He received his master's degree in Electronic Engineering in 1982, and his PhD degree in System Engineering in 1987, both from the University of Bologna. In 1990 he joined the faculty at the University of Bologna as an Assistant Professor in Operations Research. In 1992 Dr. Fischetti held his first appointment at the University of Padova as an Associate Professor in Operations Research. In 1994 he was appointed Full Professor in Operations Research, first at the University of L'Aquila (1994-1995), then at University of Udine (1995-1997), before returning to the University of Padova (1997 -). Dr. Fischetti's main research interests include mixed-integer programming, combinatorial optimization, vehicle routing and scheduling problems, and polyhedral combinatorics. He has published 100+ articles, given numerous plenary talks, and received several awards in recognition of his work. In addition to his theoretical contributions, Professor Fischetti is also a prolific and recognized applied researcher with top accolades including winner of the 2008 INFORMS Franz Edelman Award and finalist of the 2004 INFORMS Daniel H. Wagner Prize. Professor Fischetti is a member of the Editorial Board of the international journals Mathematical Programming Computation and Journal of Combinatorial Optimization. The title of his Harold Larnder Memorial Lecture was "*The simpler the better: Thinning out MIP's by Occam's razor*".

Michel Gendreau (R) presents the Harold Larnder Award to Matteo Fischetti (L)

2015 CORS Award of Merit Winner:
Tamás Terlaky

Samir Elhedhli (R) presents the Award of Merit to Tamás Terlaky (L)

Dr. Tamás Terlaky is the George N. and Soteria Kledaras '87 Endowed Chair Professor, Department Chair, Industrial and Systems Engineering at Lehigh University, Bethlehem, PA, USA.

His degrees include a M.Sc. Mathematics (1979, Eötvös University, Budapest), Ph.D. Operations Research (1981, Eötvös University, Budapest), CSc (1985) and DSc (2006) from the Hungarian Academy of Sciences. Prior to his current appointment at Lehigh University, he has previously taught at Eötvös University, Delft University of Technology, and McMaster University. At McMaster he also served as the founding Director of the School of Computational Engineering and Science. The ISE Department at Lehigh has been selected three times by the prize committee at INFORMS as a finalist for the UPS George D. Smith Prize, awarded annually for effective and innovative preparation of students to be good practitioners of operations research, management science, or analytics.

Dr. Tamás Terlaky has published four books, edited over ten books and journal special issues, published over 160 research papers. Topics include theoretical and algorithmic foundations of operations research, such as the invention of the criss-cross method, interior point methods, worst case examples of the central path, nuclear reactor core reloading optimization, oil refinery and VLSI design optimization, and robust radiation therapy treatment optimization.

Dr. Terlaky is founding editor-in-chief of the journal, Optimization and Engineering. Dr. Terlaky has served as associate editor of several journals, and has served as conference chair, conference organizer, and distinguished invited speaker at conferences all over the World. Most recently, he was the General Chair of the 2015 INFORMS conference. He is member and former chair and officer of numerous professional organizations, Chair of the Continuous Optimization Steering Committee of the Mathematical Programming Society, and Fellow of the Fields Institute, Canada. Dr. Terlaky has supervised or co-supervised over 60 graduate students, and he has received the MITACS Mentorship Award for his distinguished graduate student supervisory record. Dr. Terlaky's research interests include high-performance optimization methods, optimization models, algorithms and software, and solving optimization problems in engineering sciences.

2015 Omond Solandt Award Winner:
AD OPT Technologies

AD OPT Technologies provides crew planning optimization solutions for the airline industry and is an active member of the international operations research community. Based out of Montreal the company was founded in 1987 by professors from the renowned OR research group GERAD. In 2004 AD OPT became a division of Kronos Incorporated, but maintains its headquarters in Montreal. Their core focus is to deliver customized solutions for the highly complex task of flight crew planning and scheduling for the world's leading airlines, with the objective to enable airlines to achieve optimal operations efficiency, improved crew quality of life, streamlined crew planning and scheduling, and boosted operating revenue and reduced operational costs. AD OPT's solutions are used by many of the world leading airlines and air freight companies, including Air Canada and West Jet. The numerous success stories from AD OPT's customers showcase the enormous value and impact that OR can have and AD OPT exemplifies the companies pushing the forefront of analytics and operational research applications.

Michel Gendreau (R) presents the Omond Solandt Award to
Norbert Lingaya, Manager of Optimization Technologies at AD OPT (L)

2015 Service Award Winner:
Bill Simms

Bill Simms is a Professor Emeritus in Operations Research from Royal Military College of Canada.

Fredrik Ødegaard (R) presents the Service Award to Bill Simms (L)

2015 CORS Practice Prize Winners

The CORS Practice Prize recognizes an outstanding application of operational research that has had a significant, verifiable and quantifiable impact on the performance of the client organization. The judging team of Rick Caron (University of Windsor), Bernard Gendron (Université de Montréal) and Gilbert Laporte (Université de Montréal) awarded a first place prize of $1,000 to the project "Modeling of the Air Cargo Network Flow Optimization" to team members Guoqing Zhang (Project leader), Nooshin Nekoiemehr, Qiqi Zhang, and Anqi Chen of the University of Windsor and *Jérôme*-Olivier Ouellet, Jean-François Pagé, and Adam Dudar of Air Canada.

The Air Canada Cargo division provides direct services to over 150 Canadian and international destinations. Working closely with Air Canada's Operations Research Department and Cargo Division, the University of Windsor Supply Chain and Logistics Optimization Research Center research team developed an optimization based tool to support both strategic and operational level decisions. The decision support tool was tested with positive result on real world data sets and will enable Air Canada Cargo to better evaluate its capacity to accept new demand, will determine the impact of proposed fleet capacity changes and / or network re-design, and will be used to inform bidding strategies for large cargo delivery contracts giving it the potential to make a significant impact on revenue by enhancing business competitiveness. The tool is now in use at Air Canada and extensions are being planned.

Richard J. Caron, Chair of the 2015 Practice Prize Committee.

Richard Caron (R) presents the First Place CORS Practice Prize to
Nooshin Nekoiemehr (L) and Guoqing Zhang (C)

2015 CORS Student Paper Competition

Open Category

The First Place in the Open Category was awarded to Amir Rastpour (University of Alberta) for the paper "Modeling Yellow and Red Alert durations for ambulance systems".

The Honourable Mention in the Open Category was awarded to Vahid Roshanaei (University of Toronto) for the paper "Coalitional operating room planning and scheduling".

Mehmet Begen (R) presents the Open Category First Place to Amir Rastpour (L)

Mehmet Begen (R) presents the Open Category Honourable Mention to Vahid Roshanaei (L)

Undergraduate Category

The First Place in the Undergraduate Category was awarded to Zahra Bodla, Ahad Ismail, Ra'd Daoud, and AbdulRehman Shaheen (University of Waterloo) for their paper "Redesigning Fischer Canada's Facility Layout and Scheduling Operations".

The Honourable Mention in the Undergraduate Category was awarded to Jordan Moreau, Ian Gresel, Andrew Scott, and Mohamed-Akeel R. Hasham (University of Waterloo) for their paper "Feeding Iqaluit: A Consolidated Shipment Ordering System".

Mehmet Begen (R) presents the Undergraduate Category Honourable Mention Prize to Mohamed-Akeel R. Hasham (L) and Andrew Scott (C)

CORS Forestry SIG David Martell Student Paper Prize in Forestry: Claudia Cambero

The David Martell Student Paper Prize in Forestry recognizes outstanding scientific contributions on the theory, methodology and/or practice of operation research in forestry/forest products industry. The competition is for the best student paper published or accepted for publication in a peer-reviewed journal in the last two years.

In the 2nd edition of the prize (2015), the judging team, composed by David Martell (University of Toronto), Bernard Gendron (Université de Montréal) and Jean-François Audy (Université du Québec à Trois-Rivières) selected 3 finalists to present their work at the CORS/INFORMS International Meeting: Claudia Cambero (University of British Columbia), Shuva Gautam (Université Laval) and Nazanin Shabani (University of British Columbia).

The first prize was awarded to PhD student Claudia Cambero (University of British Columbia) for the paper "Strategic optimization of forest biomass to bioenergy and biofuels supply chains" co-authored with Taraneh Sowlati (University of British Columbia), Marian Marinescu (FPInnovations) and Dominik Röser (FPInnovations) and published in the International Journal of Energy Research.

Forest residues are renewable materials for bioenergy conversion that have the potential to replace fossil fuels beyond electricity and heat generation. A challenge hindering the intensified use of forest residues for energy production is the high cost of their supply chain. Previous studies on optimal design of forest residue supply chains focused on biofuel or bioenergy production separately, mostly with a single time period approach. We present a multi-period mixed integer linear programming model that optimizes the supply chain of forest residues for the production of bioenergy and biofuels simultaneously. The model determines (i) the location, type and size of the technologies to install and the period to install them, (ii) the mix of biofuel and bioenergy products to generate, (iii) the type and amount of forest residues to acquire and the sourcing points, (iv) the amount of forest residues to transport from sources to facilities and (v) the amount of product to transport from facilities to markets. The objective of the model is to maximize the net present value of the supply chain over a 20-year planning horizon with yearly time steps. We applied the model to a case study in British Columbia, Canada, to investigate the production of heat, electricity, pellets and pyrolysis bio-oil from available forest harvesting residues and sawmill wastes. Based on current energy generation costs in the region and the predicted operating costs of new conversion plants, the results of our model recommended the installation of small biomass boilers coupled with steam turbines for electricity production (0.5 and 5 MW) and pyrolysis plants with a capacity of 200 and 400 odmt day^{-1}. We performed a sensitivity analysis to evaluate the sensitivity of the optimal result to changes in the demand and price of products, as well as the availability and cost of forest residues.

Students are encouraged to get ready and participate during the 3rd edition of the prize by completing the writing of their relevant papers!

*Jean-François Audy (R) presents the CORS Forestry SIG
David Martell Student Paper Prize in Forestry to Claudia Cambero (L)*

CORS Queueing SIG Student Paper Prize: Yaofei Xiong

The CORS Queueing SIG Student Paper Prize was awarded to Yaofei Xiong for the paper "Perfect sampling of a single server queue with periodic Poisson arrivals"

2015–2016 CORS BUDGET

2015-2016 CORS Budget

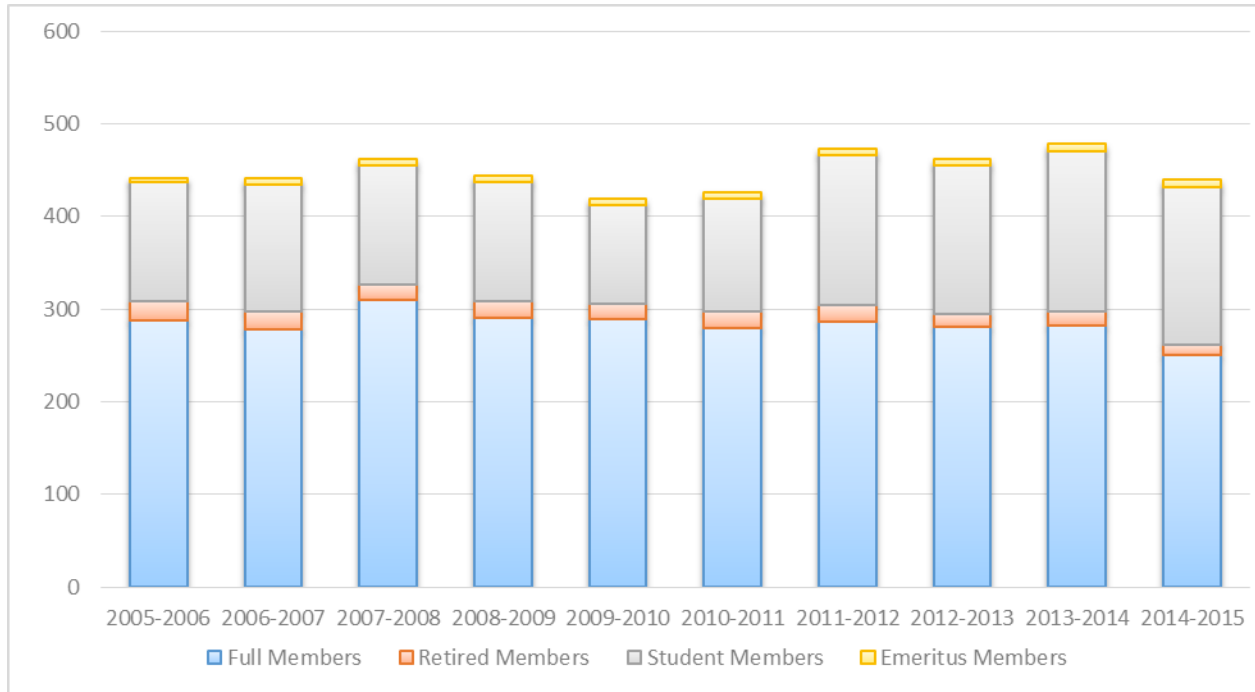|		2014-2015 Budget	2014-2015 Actual	2015-2016 Budget
I.	**Receipts**			
	Membership Dues	35,000.00	33,360.34	35,000.00
	Conference Profit	7,500.00	15,574.18	12,500.00
	INFOR Royalty/Profit	200.00	113.40	5,000.00
	Miscellaneous	0.00	0.00	0.00
	Total Receipts	**$42,700.00**	**$49,047.92**	**$52,500.00**
		Budget	**Actual**	**Budget**
II.	**Expenses**			
	Administrative Expenses:			
	Administrative Support	12,000.00	12,000.00	12,000.00
	Supplies and Other Expenses	3,000.00	1,677.78	2,000.00
	Bulletin	2,000.00	2,458.33	2,500.00
	Council Meeting	4,000.00	4,208.09	4,000.00
	Sections Shares of Dues	3,500.00	2,817.00	3,000.00
	Sections Shares of Conference Profit	875.00	0.00	1,750.00
	INFOR Journal	10,000.00	8,995.62	4,000.00
	IFORS Subscription	450.00	504.58	500.00
	Conference Expenses (Larnder, etc.)	3,000.00	3,705.63	2,500.00
	Awards/Prizes for Competitions	2,000.00	3,600.00	3,600.00
	Travelling Speaker Program/CORS Events	2,000.00	400.18	2,000.00
	GST/HST	2,000.00	-	6,000.00
	Bank and Credit Card Charges	3,000.00	1,866.03	2,000.00
	Web Services	7,500.00	2,196.72	5,255.85
	Accounting Fees			2,000.00
	CORS Grad. Student Conference Funding	3,500.00	3,550.00	8,000.00
	Total Expenses	**58,825.00**	**47,979.96**	**61,105.85**
	Expected Profit/Loss	**-16,125.00**	**1,067.96**	**-8,605.85**
III.	**Balances**			
	Opening Balance (April 1)		116,297.70	127,240.58
	Adjustments		9874.92	
	Closing Balance (March 31)		127,240.58	118,634.73

Navneet Vidyarthi, CORS Treasurer
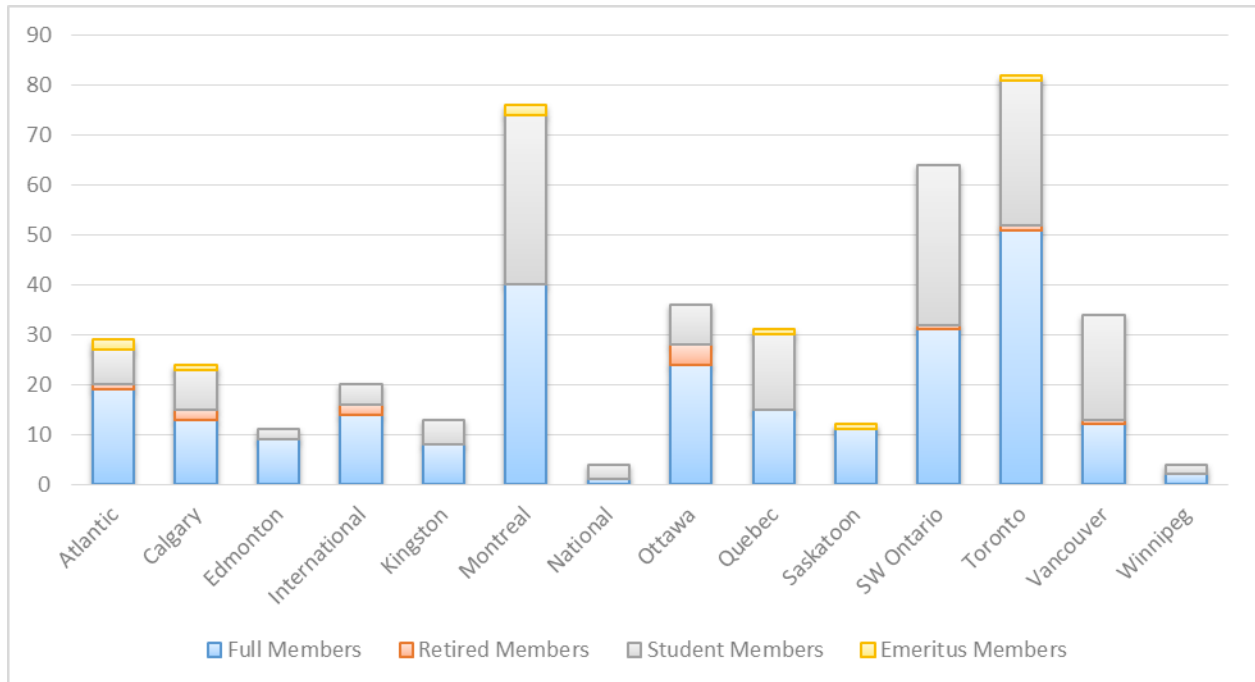
2014–2015 CORS MEMBERSHIP REPORT

I am pleased to submit a copy of the 2014–2015 Annual Membership Report of the Canadian Operational Research Society, which documents the membership activities experienced by the Society over the past year, for the CORS Council consideration. The report provides Council with the information it needs to assess the health and well-being of the Society; to monitor the effectiveness of membership processes and practices; and to identify areas where policy initiatives or changes may be required. This report reveals that CORS experienced a decrease in membership in 2014–2015 of 9%. These graphs summarize the report, which can be seen in full on the CORS website.

CORS Membership 2005-2015

CORS Membership by Member Type 2005-2015

CORS Membership by Section and Member Type March 31, 2015

SAVE the DATE

The Banff Centre and Banff National Park

CORS 2016 CONFERENCE

Canadian Operational Research Society
Société Canadienne de Recherche Opérationnelle

Join us in Banff

Present your research, expand your knowledge and make new connections, and discover a UNESCO World Heritage Site. Events include a reception and banquet. Tours of the area will be available.

58e congrès annuel
30 mai au 1 juin 2016

58th Annual Conference
May 30 - June 1, 2016 Banff National Park

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Various sponsorship opportunities available with tangible benefits for every budget. Become a CORS 2016 sponsor today!

Information
cors2016@haskayne.ucalgary.ca

CORS SPECIAL INTEREST GROUPS (SIGs)

CORS Council approved a policy on Special Interest Groups (SIGs). A SIG provides a mechanism to promote CORS, the SIG area and the SIG members, as well as the opportunity for CORS members with common interests to interact and network.
SIGs formed so far include:

- CORS Queueing Theory SIG:
  contact Steve Drekic (sdrekic@uwaterloo.ca)
  University of Waterloo, Department of Statistics & Actuarial Science
- CORS Health Care Operational Research SIG:
  contact Armann Ingolfsson (armann.ingolfsson@ualberta.ca)
  Alberta School of Business, University of Alberta
- CORS Forestry SIG:
  contact Jean-François Audy (Jean-Francois.Audy@cirrelt.ca)
  Researcher & Network Liaison Manager
  NSERC Strategic Research Network on Value Chain Optimization
  or go to http://cors-forestrysig.pieorswirls.com/

If you would like to join a SIG, contact the persons listed above, or simply indicate that you would like to join when you renew your CORS membership.

CORS encourages members with common interest in an area within or related to operational research to form additional SIGs. More information about SIGs can be found online at http://www.cors.ca/en/membership/index.php Discussions are underway about forming SIGs in several additional areas. If you are interested in forming a SIG in a particular area, then feel free to contact the CORS SIG Committee Chair: Dionne Aleman (aleman@mie.utoronto.ca).

CORS SIG NEWS

Health Care

CORS 2015 review:

The conference and meeting held this year in conjunction with the INFORMS international meeting was a success. The healthcare track boasted 11 sessions and 33 presentations this year. We also held our annual HCOR SIG business meeting on June 16 at the conference. There was some good and productive discussion on our activities and plans for the future.

Proposed Bylaw changes:

As discussed at the annual business meeting, and circulated via email, a number of bylaw changes have been proposed. Below is a recap; if you'd like a copy of the proposed bylaws, please contact Armann. These changes will be submitted for a vote by the membership at the next business meeting at the CORS 2016 conference in Banff.

Proposal 1:
- Numbering the bylaws for easier navigation and reference.
- Officer term durations and election procedures are now the same for all officers.

Proposal 2:
- Future proposed bylaw changes will be voted on following the annual business meeting via a secret, electronic ballot.

Student Competition:

Tim Chan and Peter VanBerkel proposed that we adopt an oral student competition for students. This format will be one of the first and only competitions solely based on presentation (i.e., no accompanying paper). The goal is to have students demonstrate mastery of coherent, engaging presentation lasting five minutes. The judging criteria will be based on both presentation quality and quality of research. Further details are still to be finalized over the coming months. The intention is to hold the inaugural competition at the CORS conference in Banff 2016.

Upcoming Conferences:

CORS 2016 in Banff. If you are interested in organising a session or giving a presentation please contact David Stanford (stanford@stats.uwo.ca) or
Nadia Lahrichi (nadia.lahrichi@polymtl.ca). The conference website will be available in the coming months.

CanQueue 2015 in Halifax. This conference is another interesting venue to showcase OR in healthcare. Please contact David Stanford (stanford@stats.uwo.ca) or
Peter VanBerkel (peter.vanberkel@dal.ca) for details.

The conference website is http://www.dal.ca/faculty/engineering/industrial/canqueue-2015.html

Final Notes:

Want to be more involved in our growing HCOR SIG? Here are some ideas to get started:
- Organize a session / present in the healthcare track in Banff 2016
- Help with the student competition
- Become an officer next year
- Propose a new initiative

Contact HCOR President Armann Ingolfsson (armann.ingolfsson@ualberta.ca) to get started.

Reminder – Don't forget to join the HCOR SIG when you renew your 2015-16 CORS membership!

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Forestry

The 'OR in forestry' cluster program at the 2015 CORS/INFORMS was a great success with 47 regular talks split into 12 sessions. The Forestry SIG wants to acknowledge the cluster co-Chairs, Jean-François Audy (UQTR) and Mikael Rönnqvist (ULaval) for their great work in organizing the cluster program this year, and to the session chairs, Bernard Gendron (UdeM), Catalin Ristea (FPInnovations), David Martell (UofT), Eldon Gunn (DalhousieU), Gregory Paradis (ULaval), Jean-François Audy (UQTR), Jonathan Gaudreault (ULaval), Marc-Andre Carle (ULaval), Mikael Rönnqvist (ULaval), Mustapha Ouhimmou (ÉTS), Shuva Hari Gautam (ULaval), and Taraneh Sowlati (UBC), for their valuable participation.

With the financial support from the NSERC VCO Network, four special sessions were also organized within the 'OR in forestry' cluster:
- "Big Data in Forest Decision Support Systems" by Catalin Ristea (FPInnovations) and Lennart Rådström (Skogforsk).
- "Value Chain Optimization Research Network: Moving Forward" by Paul Stuart (EPM, VCO Network) and Yan Feng (VCO Network).
- "Strategic Planning in the Forest Sector" by Dan Rouillard (Ontario Ministry of Natural Resources and Forestry), Eldon Gunn (DalhousieU), and Glen Armstrong (UAlberta).
- Presentations by the three finalists of the 2015 David Martell Student Paper Prize in Forestry: Claudia Cambero (UBC), Nazanin Shabani (UBC), and Shuva Hari Gautam (ULaval).

The FSIG wants to thank the support of the NSERC VCO Network and the participation of all speakers of the four special sessions. The jury of the 2015 David Martell Student Paper Prize in Forestry (David Martell, Bernard Gendron and Jean-François Audy) acknowledges the high quality of the work presented by the three finalists. They congratulate the winner of this year's prize, Claudia Cambero, for her work "Strategic optimization of forest biomass to bioenergy and biofuels supply chains" co-authored with Taraneh Sowlati (UBC), Marian Marinescu (FPInnovations) and Dominik Röser (FPInnovations).

During the 2015 FSIG annual meeting, the Forestry SIG reviewed the activities and initiatives since the last annual meeting (e.g. use of communication tools, progress of the INFORMS special issue, customization and adoption of bylaws), voted on two propositions to enhance the David Martell Student Paper Prize in Forestry, overviewed and acknowledged the achievements of the 2013-2015 mandate by the outgoing president of the Forestry SIG, Jean-François Audy, and elected a new president for the 2015-2017 mandate, Claudia Cambero, who mentioned her intention to work towards increasing students' involvement in the activities of the Forestry SIG.

For further information of the Forestry SIG, or if you would like to join the Forestry SIG, please contact Claudia Cambero (cambero.claudia@gmail.com).

Queueing

The queueing cluster program at the CORS/INFORMS International Meeting in Montreal was a great success with 20 regular talks split into 5 sessions. Special thanks to all speakers, session chairs, and the cluster program chair, Doug Down, for their contributions.

The third annual Student Paper Prize was awarded at the business meeting in Montreal. This year's winner is Yaofei Xiong (Western University), for his paper "Perfect sampling of a single server queue with periodic Poisson arrivals" co-authored with Duncan Murdoch and David Stanford. The judging team of Sapna Isotupa (Wilfred Laurier University), Qi-Ming He (University of Waterloo), and Myron Hlynka (University of Windsor) were pleased and impressed with the quality of the four submissions.

Also at this business meeting, Queueing SIG members Peter VanBerkel and David Stanford spoke of the upcoming CanQueue 2015 Conference, which will take place on September 3rd and 4th in Halifax, Nova Scotia. Professor Richard Boucherie from the Stochastic Operations Research group at the University of Twente in the Netherlands will be the keynote speaker. Peter and David mentioned that a focused session on healthcare is also being planned.

More information can be found by visiting the conference website at www.dal.ca/canqueue2015.

Finally, if you would like to join the Queueing SIG, please contact
Steve Drekic (sdrekic@uwaterloo.ca).

CORS SECTIONS NEWS

Edmonton

CORS Edmonton members may be interested in the "lunchalytics" series that take place at the Startup Edmonton facility (301, 10359 104 Street). Each event features 3-5 speakers, who give a presentation on a topic related to analytics, and a free lunch. CORS Edmonton will sponsor two lunchalytics events in 2015-16. Please contact Armann Ingolfsson (armann.ingolfsson@ualberta.ca) if you have suggestions for speakers or themes for these two events. Speaker self-nominations are welcome. To sign up for a mailing list and to find information about past lunchalytics events, go to http://www.meetup.com/startupedmonton/ and click "join us".

Toronto

CORS/INFORMS Toronto Student Chapter held 5 academic and 1 social events during 01 May 2015--17 July 2015:
- Student talks by Hugo Bosch (May 13) and Raghav Singal (June 24)
- Academic job search: A multi-criteria optimization problem by Daria Terekhov and Houra Mahmoudzadeh (28 May and 1 June)
- Outdoor social (May 21)
- First Teaching Experience: Challenging but Rewarding by Maliheh Aramon Bajestani (June 3)

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MEETINGS AND CONFERENCES

CORS Business Meetings

June 17, 2015	CORS Council Meeting, Montreal, QC
August 21, 2015	CORS Council Meeting, Teleconference
November 27, 2015	CORS Council Meeting, Teleconference
January 22, 2016	CORS Council Meeting, Toronto, ON
March 18, 2016	CORS Council Meeting, Teleconference
April 22, 2016	CORS Financial Planning Committee Meeting
May 6, 2016	CORS Council Meeting, Teleconference
May 29, 2016	CORS Council Meeting, Banff, AB
May 30, 2016	CORS Council Meeting, Banff, AB
May 31, 2016	CORS Annual General Meeting, Banff, AB

CORS Annual Conferences

May 30 – June 1, 2016	CORS Annual Conference, Banff, AB
July 17–21, 2017	CORS/IFORS Conference, Quebec City, QC
2018	CORS Annual Conference, Halifax, NS

WWW Conference Listings

CORS-SCRO Conference Page: http://www.cors.ca/en/conferences/i_other.php

INFORMS Conference Home Page: http://www.informs.org/Conf/Conf.html

IFORS Conferences: http://www.ifors.org/panorama/conferences/index.shtml

Netlib Conferences Database: http://www.netlib.org/confdb/Conferences.html

SIAM Conference Home Page: http://www.siam.org/meetings/calendar.php

POMS Conference Page: http://www.poms.org/conferences/

CORS FUNDING OPPORTUNITIES

Graduate Student Funding to Attend CORS Conferences (GSCS)

CORS has established the GSCS program to encourage attendance of graduate students at conferences, symposia, or workshops specifically aimed at graduate students, such as student conferences, doctoral colloquia, and conferences for junior operations researchers. CORS may provide partial funding up to $500 per student for attendance at such events. Note that the GSCS program will *not* fund attendance at CORS meetings, because CORS has a separate program for this purpose.

All GSCS funding is subject to availability of funds and the following eligibility criteria:
- Student is a member of CORS.
- Student's supervisor is a member of CORS.
- Student is enrolled in a graduate program in a field related to operational research.
- Student is studying at a Canadian university, or is a Canadian citizen or permanent resident studying abroad.

The application process is competitive. The following criteria will be used to select applications that will be funded:
- The quality of the paper to be presented at the conference, if applicable.
- The benefits that the student is likely to derive from attending the conference.
- The stage that the student has reached in his/her degree program.
- Prior GSCS funding received by the applicant (new applicants will be given preference, all else being equal).

An application for GSCS funding is available at http://www.cors.ca/en/students/i_cors_conf.php

Because funding is limited, applicants are encouraged to submit their applications in a timely manner. Applications must be received at least two months before the conference date to receive full consideration. Applicants who meet this deadline will be notified of the outcome of their application at least one month before the conference date. For further information, contact: Mehmet Begen, GSCS Coordinator, E-mail: mbegen@ivey.uwo.ca

CORS Traveling Speakers Program

The Traveling Speakers Program (TSP) enables local sections to bring Canadian OR practitioners / researchers as speakers to their local events. In order to keep costs in line while maximizing the CORS National profile, CORS sponsorship will be limited to 50% of the total expenses, up to a maximum of $500 per speaker or $1000 for a single event (conference, workshop). Other expenses can be covered by the local section. The program of the event must acknowledge the contribution of CORS. Each local section must contact the TSP coordinator to obtain approval for funding preferably at least one month in advance of the event date. Payment will be made by the CORS Treasurer upon receipt of the expense report.

Taraneh Sowlati, TSP Coordinator, E-mail: taraneh.sowlati@ubc.ca

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CORS ANNUAL CONFERENCE
MAY 30 – JUNE 1, 2016, BANFF, AB

THE NEXT ISSUE

The next issue of the Bulletin is scheduled to appear in November. Along with the regular features and news from the local sections, it will contain more information about the next CORS conference. Contributions to this issue, especially news on the activities of SIGs, local sections or CORS Members, should be submitted by **October 16, 2015** to:

Andrea Friars
Editor, CORS-SCRO Bulletin
11 Sawgrass Drive
Oakfield, NS B2T 0G1
Phone: 902-895-8430 ext. 3236
E-mail: andreafriars@gmail.com

The preferred method of submission is by an MS-Word attachment to an e-mail.

CORS BULLETIN TRANSLATION POLICY

Items that are CORS business will be translated into English and French. All other items will be published in the language they are submitted in.

CORS BULLETIN ADVERTISING POLICY

Ads cost $120 per page, proportional for fractional pages. Logos and prepared layouts can be accommodated. This fee also includes distribution of the advertisement on the CORS ListServ. Direct inquiries to the Editor.

CORS LISTSERV

As a benefit of membership, members may use the CORS ListServ to transmit messages, announcements, and job postings to the entire membership or to a targeted subgroup such as a local section. For example, you can send
- messages regarding the activities and business of the Society;
- announcements about conferences, conference sessions, special journal issues, seminars or other activities provided that these are related to operational research in its broadest sense;
- job postings of general interest to CORS members.

The ListServ is not used for commercial purposes, and all messages are vetted before they are sent out. To submit items to the ListServ, e-mail Erla Anderson, CORS Membership Services at membershipservices@cors.ca

For non-members, a fee of $60 is charged for the distribution of Job Postings and other announcements or messages of interest to the CORS membership.

Canadian Operational Research Society
Société canadienne de recherche opérationnelle

The **Canadian Operational Research Society** was founded in 1958. Its goal is to advance the theory and practice of OR and to stimulate and promote contacts between people interested in the subject.

Publications: A quarterly scientific journal called *INFOR* and a news *Bulletin*.

Meetings: An annual National Conference with award ceremony, occasionally organized jointly with an international society (IFORS, INFORMS), as well as numerous local events organized by the local sections.

Local Sections: CORS has twelve local sections located throughout Canada and three student sections.

Awards and Prizes: CORS presents the following annual Awards and Prizes at its National Conference:

Award of Merit for significant contributions of a present or past member of CORS to the profession of OR.

Harold Larnder Memorial Award to an individual who has achieved international distinction in OR.

Omond Solandt Award to an organization, private or governmental, that is deemed to have made an outstanding contribution to OR in Canada.

Practice Prize for the challenging application of the OR approach to the solution of applied problems.

Service Award for outstanding contributions of time and service to the Society.

Student Paper Competition to recognize the contribution of a paper either directly to the field of OR through the development of methodology or to another field through the application of OR.

Graduate Student Funding: CORS encourages attendance of graduate students at conferences, symposia, or workshops by providing partial funding. Visit CORS website for details.

CORS Diploma: This diploma is awarded to students graduating from a university curriculum comprising several OR courses. Criteria and an example certificate may be found on the CORS website.

Membership Directory: An online Directory of CORS Members is available as a membership benefit.

To join CORS: Go to the CORS website (www.cors.ca) and join online by credit card using the form found under membership services or complete the PDF application form found on the CORS website and mail it with payment to the address below.

Fees: Member $110; Retired Member $55; Student Member (including post-doctoral fellows) $45

Website: http://www.cors.ca