

Inauguration

4 STUDENTS x STUDENTS



Outline

- Who we are
- Our culture, logo and slogan
- Organizational Structure and Faculty Members
- Upcoming Events
- Our website and social media channels





Carlos Zetina
President



Who we are

Then

- ▶ Started off as four students wanting to share interesting results with others.
- ▶ Wanting to break the IRS syndrome (Isolated Research Student).
- Searching for a means to reach other students throughout Montreal.



Who we are

NOW

- >50 members strong, 5 faculty advisors, >10 activities scheduled.
- Members from Concordia, UdeM, HEC, ETS, McGill, Polytechnique, UQAM
- ▶ Under the umbrella of CORS, Concordia and its Graduate Student Association pending approval from INFORMS.



Who we are

General Objective

To create a collaborative multi-university, interdisciplinary platform for the exchange of knowledge and ideas from all branches of Operations

Research (OR) providing its members with a broad knowledge of the field.



Vision and Mission

Our Vision

To be the primary channel for knowledge sharing and networking among the O.R. community in Montreal.

Our Mission

To provide one integrated place for the O.R. community in Montreal, where knowledge is shared in a friendly and professional environment.



Core Values

- ▶ We do not discriminate or disqualify members for any reason.
- We give constructive criticism in a respectful manner.
- ► We work together to make all members more knowledgeable in the state- of-the-art OR methods.
- ► We respect the authorship of ideas and repudiate any reproduction of original ideas without the author's consent.





Mohammad Jeihoonian Vice President



Activities

Software Tutorials

For students to teach their peers technical knowledge of software used in O.R.

Workshops

To review the state of the art of the methods and theory used in O.R.



Activities

Seminars

To provide a platform for students to present their research while practicing and refining their presentation before a conference, a thesis defense or end of course presentation, while getting constructive criticism.



Executive Board



Dr. Ivan
Contreras
Faculty Advisor



Carlos Zetina
President



Mohammad Jeihoonian Vice President



Sara Ayoubi Secretary



Andrés Acevedo Treasurer



Our Faculty Members

- Dr. Daria Terekhov (MIE)
- ▶ Dr. Chadi Assi (CIISE)
- ▶ Dr. Brigitte Jaumard (CSE)
- ▶ Dr. Jia Yu (CIISE)



Our Organizing Committee



Camilo Ortiz Editor-in-Chief



Hyame
Alameddine
Events Director



Wael Nassief
Website
Development
Director



Iris Zhu
Social Media
Director



Furkan Enderer Logistics Director





Hyame
Alameddine
Events Director



Our "true colours"

Light
Perfection
Goodness
Purity

Growth
Harmony
Freshness
Stability
Endurance



Cool Neutral Balanced Trust, Loyalty
Wisdom, Faith
Confidence
Intelligence
Knowledge
Power, Integrity
Seriousness



Logo and Slogan

Student knowledge bridge

Connections

Graph

Network

Student

Return R

Research

Operations

4 STUDENTS X STUDENTS



Calendar of Events – Summer 2016

An event on the LAST THURSDAY of each month

Date	Title	Presenter	Туре
26 May 2016	Exact and Approximate Solution methods for Multi- level Facility Location Problems	Camilo Ortiz	Seminar
30 June 2016	Introduction to parallel computing with OpenMP	Furkan Enderer	Tutorial
28 July 2016	Traffic Engineering in Data Center Networks: A Column Generation Approach	Sara Ayoubi	Seminar
25 August 2016	Truck Scheduling at the Cross Dock terminal in the USA	Wael Nassief	Seminar

Are you interested in presenting your research ideas? CONTACT US



Upcoming Events-Fall 2016

- Events for new OR students
 - Basics to write a mathematical model
 - Use of Cplex (OPL)
 - Use Cplex (callable libraries c, Java)
- Events for advanced O.R. students
 - Uncapacitated Multicommodity Network Design (Benders optimality cut)
 - Production and inventory routing with an assembly structure
- Sign up to attend or Volunteer to present!

- Use of Latex
- Preparing Presentation
- Basics to write a research paper
 - Coding a column generation algorithm using the callable library (CPLEX+C)
 - Scripts for running computational experiments and analyzing results with Calcul Quebec





Furkan Enderer Logistics Director



Our Website

http://www.mtl-students.com/



Social Media Channels

Like us on Facebook



OR Montreal Chapter

Follow us on Twitter





@OR_MTLchapter



Thank YOU

CONTACT US

Website: http://www.mtl-students.com

E-mail: <u>or.students.montreal@gmail.com</u>

RMontreal student chapter

Facebook: /ORMTLchapter

Twitter: **@OR MTLchapter**



Dr. Ivan Contreras
Faculty Advisor



Operations Research: The Science of Better

- Operations Research is the discipline of applying advanced analytical methods to help make better decisions.
- OR professionals draw upon the latest analytical technologies:
 - Probability and Statistics: helping measure risk, mine data to find valuable connections and insights, test conclusions, and make reliable forecasts
 - Optimization: narrowing choices to the very best when there are virtually innumerable feasible options and comparing them is difficult
 - Simulation: giving the ability to try out approaches and test ideas for improvement
 - Game theory, Experts systems, Decision analysis, ...



Operations Research: The Science of Better

- ▶ The terms **Management Science** and **Analytics** are sometimes used as synonyms for OR
- ▶ The major sub-disciplines in modern OR are:
 - Optimization
 - Simulation
 - Stochastic Models
 - Computing and IT
 - Transportation
 - Financial Engineering
 - Manufacturing and Service Science
 - Revenue Management
 - Marketing Science
 - Policy modeling and public sector work



World Hubs in OR

- Cambridge (Massachusetts Institute of Technology, MIT Operations Research Center)
- ▶ **Atlanta** (Georgia Tech, H. Milton Stewart School of Industrial & Systems Engineering
- Montreal (CIRRELT, GERAD, Concordia, HEC Montreal, UdM, Polytechnique, ETS, McGill, UQAM)

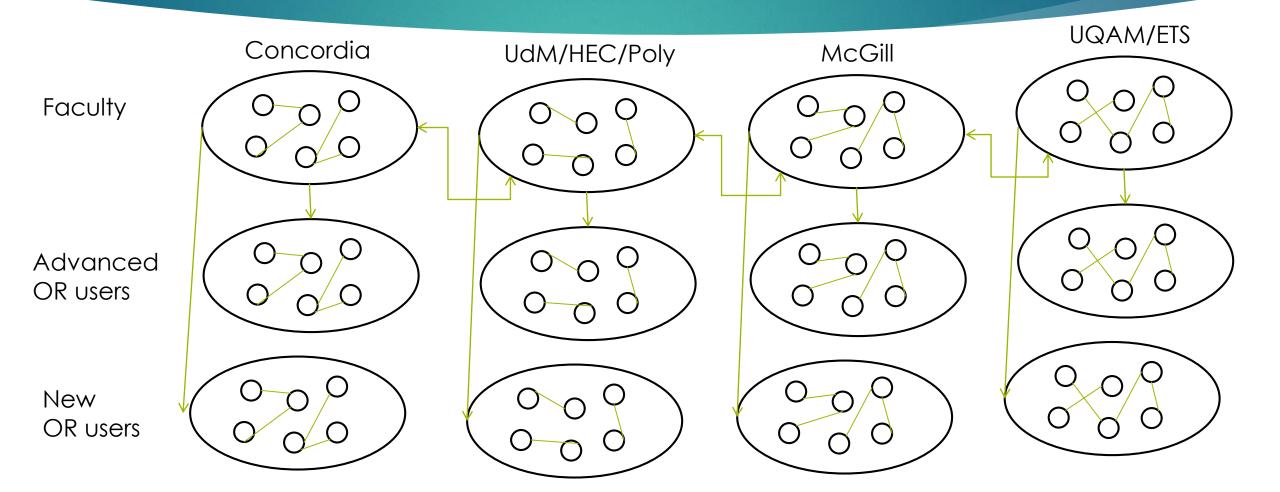


OR in Montreal

- CIRRELT: Interuniversity Research Centre on Enterprise Networks, Logistics and Transportation
 - ► Faculty: 70 (8 Canada Research Chairs, 2 Industrial Chairs, 5 University Chairs)
 - Postdocs: 23
 - ▶ PhD: 268
 - Msc: 288
- ► **GERAD**: Group for Research in Decision Analysis
 - Faculty: 70 (8 Canada Research Chairs, 4 University Chairs)
 - Postdocs: 25
 - ▶ PhD > 200
 - \rightarrow Msc > 200

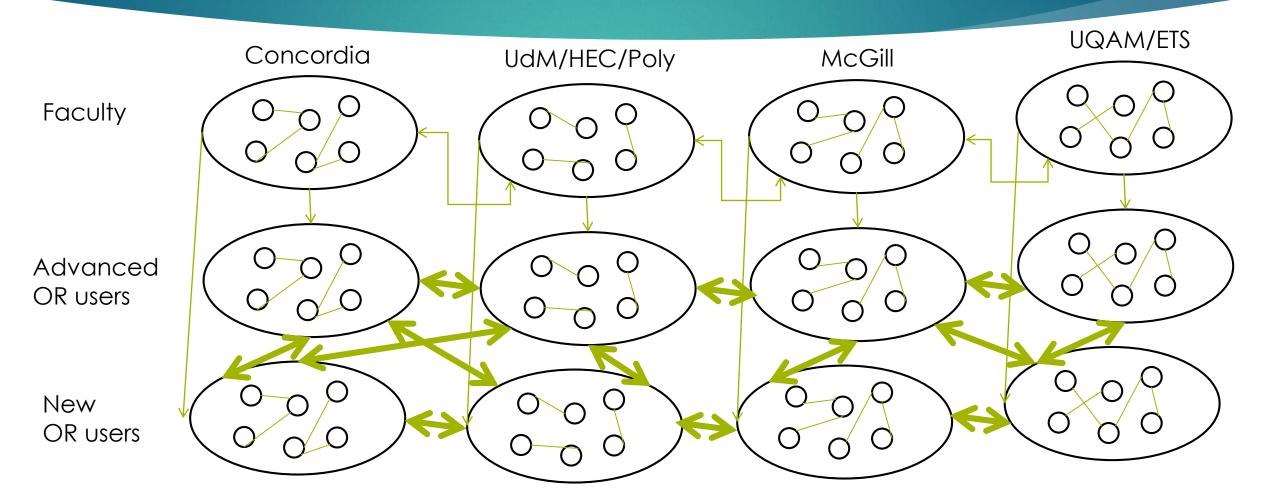


OR in Montreal





OR in Montreal





Career Opportunities in OR

- According to the U.S. Bureau of Labor Statistics, OR currently is one of the fastest-growing career areas for college graduates.
- ▶ U.S. News places OR analysts among the Best Jobs of 2015. For more information, click <u>here</u>.



Career Opportunities in OR in Montreal

- Consulting and Spinoff companies:
 - GIRO (Public transport and postal organizations)
 - INRO (Transport planning software)
 - KRONOS (Workforce management solutions)
 - ExPretio (Revenue optimization, forecasting)
 - KPMG (Risk management)
 - KOM International (Supply chain, warehousing, logistics)
 - GCL Group (Logistics and supply chain consulting)
 - ▶ JDA (Manufacturing planning, retail planning, revenue management)

RMontreal student chapter

Thank YOU

CONTACT US

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Majid Bazrafshan,
M.A.Sc.
Lead Consultant
Global Optimization
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FICO®

Thank YOU

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