



***Today's Ideas
Tomorrow's Innovators***

The UofC Graduate Conference

Program Guide

May 5 – 7, 2010

Hosted by:



SCHULICH
School of Engineering



GRADUATE STUDIES | UNIVERSITY OF CALGARY



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Welcome Message

We are proud and happy to welcome you to the second annual University of Calgary Graduate Students' Association Conference: **Today's Ideas, Tomorrow's Innovators**. This two and half day conference is a community event that brings together faculty, industry, administration and alumni participants through highlighting the cutting-edge research being performed each and every day at the U of C. The goal of the conference is to take complex research ideas and share them with the public through interdisciplinary research sessions, panel discussion, workshops, performing arts shows, visual art displays, poster presentations, networking events and an awards banquet.

We are also honored to welcome this year's distinguished guest speakers to the conference. **Jorge Cham**, the creator and artist of Piled Higher and Deeper (PhD), will officially open the conference on Wednesday, May 5. On Thursday, May 6, award-winning researcher **Dr. Mostafa A. El-Sayed** will deliver his address on the graduate experience. On Friday, May 7, **The Right Honourable Joe Clark**, former Prime Minister of Canada will close the conference with his highly anticipated keynote address. We also extend a warm welcome all our distinguished faculty, community, and industry guests who support us in so many ways.

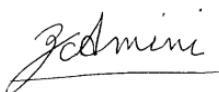
We cordially invite you to attend:

- **Oral presentations** – Expand your knowledge base and learn about the exciting interdisciplinary research being performed by graduate students at the University of Calgary.
- **Networking and Poster Event** – Share your research and learn about innovative breakthroughs while networking with government, industry, and faculty members.
- **Workshops** – Learn practical skills and familiarize yourself with different services university has to offer.
- **Panel Discussion** – Meet U of C president-elect Dr. Elizabeth Cannon and Dean of Graduate Studies Dr. Fred Hall. Learn about their vision for graduate studies at the University of Calgary and take this opportunity to get your questions about graduate research answered.
- **Plenary Session** – Come and watch the best of the best compete as the top five oral presenters vie for Faculty of Graduate Studies Best Presenter's Award.

On behalf of the Conference Organizing Committee, I would like to acknowledge the financial contributions from our sponsors: the Graduate Representative Council for its continued approval of Quality Money funding for this conference; the University of Calgary Alumni Association; the Schulich School of Engineering; the Natural Science and Engineering Research Council; and the Faculty of Graduate Studies. This conference would not be possible without your generous support.

I would also like to thank our amazing team of volunteers. This wonderful group of graduate students took a dream and made it reality. Please join me in thanking them for their dedication and commitment.

We look forward to seeing and meeting many of you in the conference. Come learn, and enjoy this one of the kind conference!



Zahra Amini

Conference Director

Graduate Students' Association

Organizing Committee			
Conference Director			
Zahra Amini			
Communications Committee	Events Committee	Technical Committee	Volunteer Committee
Rozhen Mohammed-Amin	Marcia Ricketts	Ahmed Al-Emran	Islam Hegazy
Sandra Ward	Maryam Malekshahian	Hany Elsayed	Vahid Dehghanian
		Hossein Safaei	
		Shantanu Banik	
		Thaer Shunnar	

Volunteers

Nashad Ahmed Safa	Chandandeep Grewal	Zahra Premji
Angela Aivaz	Oday Haddad	Vladimir Pavlov
Ossama alFanek	Mohammad Hatef Keshvadi	Payman Pirzadeh
Tonima Ali	Somayeh Hosseininejad Mohebati	Sandhya Purighalla
Abdelrahman Ali	Moslem Hosseininejad Mohebati	Swathi Purighalla
Mohsen Alimomeni	Valeh Hosseinzadeh Nasser	Diana Radovan
Wadhah Almansoori	Shahedul Huq Khandaker	Upul Ranasinghe
Nasibeh Amiri	Hamdy Ibrahim	Mostafa Rashdan
Ahmed Arafa	Muhammad Irfan Ullah	Osama Refaie
Hamidreza Baghi	Poornima Jayasinghe	Navdeep S. Sekhon
Rose Bene	Lorna Kanesh	Sara Saeedi
Heather Bryan	Hassan Khaniani	Rojin Salehi Vishkaie
Murtaza Dahodwala	Emadoddin Livani	Sepehr Sayedain
Prakash Das	Danica MacDonald	Hamidreza Shahbaazi
Daniel de Castro	Soha Makady	Zahra Shaterzadeh-Yazdi
Reza Dehghan	Adnan Mashrik	Chee-Wee SIA
Camila Dores	Mostafa Mohamed	Bhavya Singh
Mojtaba Ebrahimi	Baharan Moini	Nisael Solano
Ehab El-Sawy	Hamedreza Motahhari	Mohamed Sorour
Mohamed Elersy	Adel Moussa	Charlotte Tang
S.Reza Etminan	Kamran Noori	Sara Tehranian
Zahra Fatouraei	Maria Nunez	Daniel Wan En Ling
Yaser Ghanam	Orieji Onuma	Maliha Zaman
Salim Ghandorah	Elham Paikari	Mohammad Zaman Forotan
Hazem Gomaa	Diana Paola Ortiz	Elham Zeini
Somayeh Goodarzi	Kaveh PourAkbar Saffar	Xing Zhao

Program Overview

OPENING EVENING EVENT – WEDNESDAY, MAY 5

Time	Program	Location	
16:30 - 17:30	Networking Workshop -How to network? -How to benefit most from the wine and cheese networking event on May 6, 2010	ICT 122	Open to Public
17:30 - 18:00	Business Card Workshop -Providing free business card design and print	ICT 122	
18:00 - 19:00	Opening Speaker - Jorge Cham (writer and artist of Piled Higher and Deeper) Talk - Q & A	ICT 102	Open to Public
19:00 – 20:00	Jorge Cham Book Signing	ICT 102	Open to Public
19:00 – 20:00	Reception at the Last Defence	Last Defence Lounge	

DAY ONE – THURSDAY, MAY 6

Time	Program & Location					
9:00 – 10:30	Management Sciences	Technology & Society I	Science & Technology I	Science & Technology V	Cultural & Historical Perspectives I	Open to Public
	ICT 114	ICT 116	ICT 121	ICT 122	SB 144	
10:30 – 12:00	Energy, Environment & Sustainability	Technology & Society II	Science & Technology II	Science & Technology VI	Cultural & Historical Perspectives II	Open to Public
	ICT 114	ICT 116	ICT 121	ICT 122	SB 144	
12:00 – 14:00	Lunch Break				Ballroom*	
14:00 – 15:00	Dr. Mostafa A. El-Sayed Talk - Q & A				ICT 102	Open to Public
15:00 - 16:30	Economic Systems	Health & Environment I	Science & Technology III	Science & Technology VII	Cultural & Historical Perspectives III	Open to Public
	ICT 114	ICT 116	ICT 121	ICT 122	SB 144	
16:30 – 18:00	Art & Education	Health & Environment II	Science & Technology IV	Science & Technology VIII	Social Relations	Open to Public
	ICT 114	ICT 116	ICT 121	ICT 122	SB 144	
18:30 – 20:00	Wine & Cheese Networking Poster Session				Ballroom*	

*Ballroom is located on 3rd floor of MacHall - Room 301

DAY TWO – FRIDAY, MAY 7

Time	Program				Location	
Workshops						
9:30 - 10:00				Ethics and Academic Integrity for Graduate Students	ICT 114 ICT 116 ICT 121	Open to Public
10:00 - 11:00	Job Market ICT 121	Dress for Success women's wear ICT 114		ICT 116		
11:00 - 12:00			Bringing Innovation to Life ICT 114			
12:00 - 12:30						
12:00 - 13:00	Lunch Break				Ballroom*	
13:00 - 14:30	Plenary Session (Best 5 presenters)				ICT 102	Open to Public
14:45-15:45	<p style="text-align: center;">Panel Discussion</p> <p>Graduate Students at the U of C: Experience, Involvement and Expectation</p> <p>Panelists:</p> <ul style="list-style-type: none"> ▪ Dr. Elizabeth Cannon, U of C President-Elect & Dean of the Schulich School of Engineering ▪ Dr. Fred Hall, Vice-Provost (Graduate Education) & Dean of Graduate Studies ▪ Daniel Bidulock, GSA Past President ▪ James Lange, GSA President 				ICT 102	Open to Public
14:30 - 17:00	Art Exhibition				ICT 114	Open to Public
17:00 - 18:00	Keynote Speaker				Ballroom*	
	The Right Honourable Charles Joseph Clark Talk- Q & A					
18:00 - 20:00	Award Banquet				Ballroom*	

*Ballroom is located on 3rd floor of MacHall- Room 301

Detailed Session Program

Thursday May 6th 2010, 9:00 – 10:30

Management Sciences	Technology & Society I	Science & Technology I	Science & Technology V	Cultural & Historical Perspectives I
Chair Somayeh Goodarzi	Chair Chandandeep Grewal	Chair Moslem Hosseininejad Mohebaty	Chair Prakash Das	Chair Sara Saeedi
ICT 114	ICT 116	ICT 121	ICT 122	SB 144

9:00	Farshid Gholami The Role of Engineering Design in Construction Performance	Rozhen Mohammed-Amin Augmented Reality: A narrative layer in Historic Architecture	Sabrina Hynes The Influence of Dietary Caloric Intake on Caudal Regeneration in Juvenile Leopard Geckos (<i>Eublepharis macularius</i>)	Kristen Jorgenson Development of Suspension Bioreactor Protocols to Expand Populations of Adult Human Stem Cells From Synovial Fluid	Cindy Jing Fang Aged Friendly Communities: Cultural Perspectives of the Aging Chinese Immigrants in Calgary
9:15	Reza Dehghan Activity Overlapping Optimization in Construction, Oil, and Gas Projects	Kamaram Noori Transvaluation in Architecture: a perspective on value of performance in architecture	Jyotsna Sharma Analytical Modeling of Steam-assisted Gravity Drainage and its Variants	Marya Cokar Reservoir Simulation of Early Cycle Cyclic Steam Stimulation	Donna-Lee Wybert Blurring the boundaries: Narrative identity, Metacinema, and "Tristram Shandy: A Cock and Bull story"
9:30	Hamdy Ibrahim Decision Making Under Uncertainty: Past, Present, Future	Chee Wee SIA Laboratory Investigation of Gas hydrate Formation Habit in Porous Media: Permeability Comparison	Louis Poirier Dynamic hardness measurement of athletic ice surfaces	Vahid Dehghanian Merger of Polarization and Spatial Diversity by Moving a Pair of Orthogonally Polarized Antennas	Lorna Kearnes Elder Abuse Among Aboriginal Canadians
9:45		Alexandr Kuzmin The accelerating research with Graphical Processing Units	Hossein Safaei Heat Recovery and Cogeneration from Air Compressors	Pooria Sattari Turbulent Wake of Surface-mounted Finite Aspect Ratio Bluff Bodies	Helgi Eyford How to adapt to other cultures
10:00		Douglas Hagedorn Exploring New Directions in Non-Visual Cartography	Vincent Chiew A Large-scale Empirical Study on the Cognitive Complexity of Software	Artem Representative Atomic Volume for a grain of alpha-iron polycrystal	Marcia Ricketts The Catholic Monarchs, the General, and the Poet: How an Inquisitional Ideology Originated a Dictatorship and Killed Federico García Lorca

Thursday May 6th 2010, 10:30 – 12:00

Energy, Environment & Sustainability	Technology & Society II	Science & Technology II	Science & Technology VI	Cultural & Historical Perspectives II
Chair Xing Zhao	Chair Mohamed Elersy	Chair Moslem Hosseininejad Mohebati	Chair Mohammad Hatef Keshvadi	Chair Sara Saeedi
ICT 114	ICT 116	ICT 121	ICT 122	SB 144

10:30	Aqsha Aqsha Pyrolysis of sawdust waste using thermogravimetric analysis: the influence of sample weight and heating rate on devolatilization of sawdust	Floribert Kamabu Exploring Registered Nurses' Everyday Experiences of Telenursing Work: an Institutional Ethnography	Kavian Cooke A comparative study of microstructural development in semi-sold diffusion bonding of Al ₂ O ₃ p/Al-6061 composite	Npra Ragab Effective web thickness for externally post tensioned bridge girders	Julie Boyd Place, Memory and Cultural Forgetting
10:45	Samar Gharaibeh A New Source of Clean Energy	Samanthi Walawe SDurage Evacuation Strategies for Tornadoes	Ahmed Alshmakhy Foamy Oil Viscosity	Leanna Lachowsky Habitat determinants of body size and synchrony in natural populations of mountain pine beetles	Anastasia Antonova What was it like being a child in Stone Age?
11:00	Seyed Ali Shahamiri Catalytic Oxidation of Lean Biogas-Air Mixtures	Hany A. El-Sayed Effect of Nanoparticle Size on the Development of Fuel Cell	Mohamed Said Elersy Transmission power analysis for wireless networks in different	Lisa Deleebeeck Towards domestic heat and electricity: The use of natural gas in solid oxide fuel cells	Tammy Lambert Legitimizing Traditional Justice
11:15	Udawattage Gamini Weerasinghe Development of a Framework to Assess Sustainability of Building Projects	Bahareh Fathi A Sustainable Energy System for Eco-village Living	Taylor Oetelaar CFD, Caldaria, and Thermal Environments: A Transdisciplinary Approach	Olesja Hazenbiller The Effect of Mechanical Stimulation on Stem Cell Differentiation and Ex Vivo Fracture Repair	Graham Wrightson Fifteenth century England and the decline of the aristocracy
11:30			Seyed Hossein Hejazi Transport of reactive slices through porous media	Amir Motamedi Smart Grid Environments	

Thursday May 6th 2010, 15:00 - 16:30

Economic Systems	Health & Environment I	Science & Technology III	Science & Technology VII	Cultural & Historical Perspectives III
Chair Nasibeh Amiri	Chair Poornima Jayasinghe	Chair Sepehr Sayedain	Chair Diana Radovan	Chair Chee-Wee SIA
ICT 114	ICT 116	ICT 121	ICT 122	SB 144

15:00	<p>Jeffrey Bone Are Corporations responsible for the environment?</p>	<p>Poornima Jayasinghe Enhancement of Waste Degradation in Bioreactor Landfills through Enzymatic Catalysis</p>	<p>Andrew Godbout Corrective Sonic Feedback For Speed Skating</p>	<p>Surendra Adhikari Role of longitudinal stress on response sensitivity of valley glaciers to climate change</p>	<p>Natalee Caple Passing Between Two Toledos -- Some Thoughts on Elisa Sampedrín</p>
15:15	<p>Itziar Lazkano Generational Conflict and Sustainable Development</p>	<p>Nicole Ruest Environmental Determinants of Cycling Injuries</p>	<p>Amin Farshidi A priori Wire Length Estimation Model for Modern Circuits</p>	<p>Corie Horwood Blood sugar sensors developed from highly ordered nanotubes</p>	<p>Mark Castelino Culture and Globalization</p>
15:30	<p>Yang (Victor) Song Who "hurts" the unskilled labor in the U.S labor market?--- International Trade or Technological Change?</p>	<p>Stephanie Fisher Development of an Injectable Biomaterial Scaffold for Regeneration of the Nucleus Pulposus</p>	<p>Jeyaprakash Image and Video Compression</p>	<p>Mehdi Zeidouni Leakage Detection and Characterization through Pressure Monitoring</p>	<p>ERNIE ALAMA The experience of sponsored Filipino seniors in providing support to immigrant families in Canada: A Grounded Theory inquiry</p>
15:45	<p>Chowdury Luthfur Rahman Investigating the effects of Stochastic demand on the cost performance of 'Dynamic lot sizing models' using OptQuest in Crystal Ball Simulation</p>	<p>Allison Van Winkle Scaled Down Bioprocessing of Embryonic Stem Cells</p>	<p>Amin Sharifi Haddad Investigation of the flow exchange term for solute transport through underground fractured media</p>	<p>Hossein Nourozieh Modelling and Parameter Estimation of Underground Coal Gasification in Deep Reservoirs</p>	<p>Daniel Bidulock Artificial Agents, Social Commitments, Culture, and Conversation</p>
16:00		<p>Soheil Mortazavi Manesh Application of ionic liquids for natural gas sweetening</p>	<p>Alborz Utilizing Intelligent Segmentation in Isolated Word Recognition Using a Hybrid HTD-HMM</p>	<p>Mohammad Kariznovi Phase Behavior Study of Bitumen Solvent Mixtures Using Equation of State</p>	<p>Lindsay Penner Leave No Stone Unturned: What Can Latin Epigraphy Tell Us About the Ancient Romans?</p>

Thursday May 6th 2010, 16:30 – 18:00

Art & Education	Health & Environment II	Science & Technology IV	Science & Technology VIII	Social Relations
Chair Upul Ranasinghe	Chair Rose Bene	Chair Reza Dehghan	Chair Xing Zhao	Chair Elham Paikari
ICT 114	ICT 116	ICT 121	ICT 122	SB 144

16:30	Krystyna Laycraft Learning as a self-organizing process	Kerry Hubbauer Strength and the Meaning of Moral Distress	Sepehr Sayedain Application of The Real Feedback Test Method in PID Controller Auto-tuning	Chandandeep Grewal Measuring the Robustness of Supply Chain Replenishment Strategies	Juliette Gonzalez The Future of Conternarcotics policy in Colombia: Plan Colombia and its tactical success
16:45	Wendy J. Freeman Conducting March Emblems: Secondary Educators and Motion Capture Reveal the Ambiguous Nature of Gesture Related to Musical Sound	Faraz Oloumi Parametric Representation of the Retinal Temporal Arcade	Nasibeh Amiri Modeling and control of a small autonomous aerial	Maryam Gholamirad The mechanics of Plant remodeling	Candice Powley Developing Democracy: Assessing the Effect of Conflicting Motives in Democracy Promotion
17:00	Frazer Andrews A Puck and a Midwinter Night's Dream: Canadian Hockey as a Theatre of the Imagination	Beverley Jacobs Wholistic Health includes a Healthy Environment	Somayeh Goodarzi Geomechanical aspects of CO2 storage	Logan Rakai A Modern Challenge and Solution in Clock Network Design	Andrew Newman Strength in Numbers and the Repeat Player Advantage: Supreme Court Intervention and the CCLA
17:15	Osman Buleshkaj Educational Leadership in Post-Conflict Context	Salim Ghandorah Research is a Buzzle	Maryam Mahmoodi Strengthening Beam-Column Joints for Seismic Effects Using Steel-Reinforced Polymers: A Finite Element Investigation	Jithra Adikari Speeding up Scalar Multiplication in Elliptic Curve Cryptography	Michael Zajko Contested science in the global warming controversy
17:30	Yan Zhang Exploring Literacy Practices and Identity Negotiation of Children of Chinese Origin: A proposal		Lisa Duke Didymosphenia geminata and organic phosphorus, a nuisance bloom forming combination?	Seyed Abdolali Zareian Jahromi Modeling Piezoceramics Using Cellular Automata	
17:45				Zahra Hosseini Characterizing Ground/Wall Effects on a Dual Ducted Fan VTOL for Navigation Purposes	

Thursday May 6th 2010, 18:30 – 20:00

**Poster Event
MacEwan Hall Ballroom**

18:30

Poster excluding NSERC Posters

Sarah Mastoras 1 A Conceptual Model of Socioemotional Resilience in Children with ADHD	Gabrielle Daoust 10 Community Theatre as a Tool for Post-Genocide Unity in Rwanda
Hongmei Tong 2 Perspectives of quality health care among recent Chinese immigrants from Mainland China	Jared French 11 Conversation as a vehicle for change: Analysis of gamblers' use of talk in their recovery efforts
Prakash Das 3 Putting effort or slacking off? An examination of how consumer mindset influences judgments of firms	Jessica LeHuquet 12 Individual Differences in the Perception of Emotional Images
Jennifer Milton 4 In Fear of God: An Exploration of Catholic Female Sexuality	Heath McLeod 13 Feelings of hope and hopelessness among older women shelter consumers
Hillary Sharpe 5 Equine-Facilitated Counselling and Women with Eating Disorders	Marco Iafrate 14 The Embodied Experience and Workplace Learning
Tanya Mudry 6 Motivational Interviewing and Solution-focused Counselling with Problem Gamblers: Can this fit in a medically oriented mental health context?	Gia Pugliese 15 Social Information Processing and Bullying Behaviour: A Current Review and Critique
Cindy Stromer 7 Water Security in the South Saskatchewan River Basin	Kathleen Gorman 16 Promoting a Recognition of Social Work's Unique Knowledge Base
Melissa Pirwani 8 Clinician's Perceptions of Treatment Challenges with Elderly Sex Offenders	Sally Powis 17 Help is Just a Click Away: a look at the growing trend of therapeutic and pseudo-therapeutic help offered online for females with eating disorders
Danica MacDonald 9 Learning plurals in a second language: A look at Koreans learning English	Meaghan Brierley 18 Pharmaceutical Visualization and the Knowledge Economy

Thursday May 6th 2010, 18:30 – 20:00

**Poster Event
MacEwan Hall Ballroom**

18:30

NSERC Posters (Science and Engineering)

Ariana Amacker 19	Fereshteh Khoramshahi 28
The Social Life of Design: A sociological exploration into urban design as an embedded, collective process	A Decision Support System for Efficient Utilization of Fast Tracking Techniques
Amy Johnston 20	Mostafa Ghozlan 29
Promising Practices to Address Aboriginal Health Inequities	Roscovitine, a selective inhibitor of cyclin-dependent kinase 5, inhibits myocardin-induced expression of differentiation markers in human vascular smooth muscle cells
Heather Maheux 21	Madonna Lily Choi 30
Alternate Regimes in Shallow Lakes	Investigating Novel Molecular Events Involved in Calcium-Calmodulin Activation of Myosin Light Chain Kinase Using Hydrogen and Deuterium Exchange Mass Spectrometry
Johann Kyser 22	Orieji Kalu Onuma 31
Challenges and Opportunities in Contemporary First Nations Housing	Towards a Legal Framework for Sustainable Development of Gas in Nigeria
Chelsea Urness 23	Muhammad Irfan Ullah 32
The Environmental Impact of Information Media: Management decision-making in the library	Balancing business and technical objectives in software product evolution
Saeid Saidi 24	Yifan 33
Adaptive Ramp Metering On Deerfoot Trail Using Cellular Probe Technology	Development of Inoculation Conditions for Human Bone Marrow-Derived Mesenchymal Stem Cells on Microcarriers
Elizabeth Hernandez-Marin 25	Kathryn Wright 34
Density Functional Theory Study of the Active Site of Sulfite Oxidase	Reduced Cardiomyocyte Mitochondrial Function in Aged Rat Heart
Megan Evans 26	Diana Nada 35
Influence of grazing on bee pollinators and their floral resources in rough fescue prairie landscapes	Capital Investment Decisions at Corporate Board Level
Hui Deng 27	Michael Chiu 36
Reservoir Characterization and Flow Simulation of a Low Permeability Gas Reservoir: An Integrated Approach for Modeling Tommy Lakes Gas Field	De novo Design of Antimicrobial Peptides from Mammalian Histones

Thursday May 6th 2010, 18:30 – 20:00

Poster Event
MacEwan Hall Ballroom

18:30

NSERC Posters (Science and Engineering)Continued

Mike Roberts 37 Using Desktop Graphics Processors in Diagnostic Medicine	Hadi Samimi 46 Investigating fluid and reservoir heterogeneities at Long Lake reservoir, Alberta
Nikolay Bukharin 38 Application of cavitating jets to bitumen extraction	Hatef Keshvadi 47 GNSS Direction of Arrival Estimation and Beamforming in Multipath Environments
Catrina Loucks 39 Identification of the genetic basis of nephronophthisis in the Hutterite population	Ryan Yee 48 Visualizing Agent Communication
Jennifer Litzenberge 40 Imaging of membrane protein cluster size changes upon ligand binding using Brewster angle microscopy	Alexander Tinius 49 Claw Curvature in Amniotes: A Comparison of Methods
Mohammad Fazelizadeh 41 Drilling Hydraulic Optimization: From Theoretical Concepts to Practical Applications	Zahra Shaterzadeh-Yazdi 50 Quantum computing with dangling bond pairs on a silicon surface UNABLE TO ATTEND
David Curran 42 Engineering a Novel Vaccine Antigen Using Rational Bioinformatic Design	Kamran Hazini 51 Improving Project Fast-Tracking Strategy by Determining Optimum Application of Crashing vs. Overlapping Techniques
Tristan Jones 43 The Electronic Mosquito - Semi-invasive Glucose Monitoring	Darryl Burns 52 Evaluating Carbon Dioxide Disposal Options with Reservoir Simulation
Mohammad Moazzami 44 Effective Contractual Adjustments to Minimize Typical Risks in Fast-Tracked Oil and Gas projects	Emadoddin Livani 53 A Decision Support System for Staffing and Re-staffing of Software Projects
Holly Sebastian 45 The Optimization of an IrOx Glucose Biosensor	Cecilia Chung 54 Identifying effects of Didymosphenia geminata blooms on brook trout (Salvelinus fontinalis) growth

Thursday May 6th 2010, 18:30 – 20:00

**Poster Event
MacEwan Hall Ballroom**

18:30

NSERC Posters (Science and Engineering) Continued

Elham Paikari 55 Trade-off in release plans for balancing functional and quality requirements	Angela Vinturache 57 Nitric Oxide and Renal Haemodynamics During Postnatal Maturation: Role of Angiotensin II Receptors
Mina Hassanvand 56 Speed Effects of Road Side Memorials on Curved Roads	Fadi Alkhateeb 58 Rapid Sample Preparation of Pharmaceutical Tablets Using Sub-Critical Fluid Extraction Methods

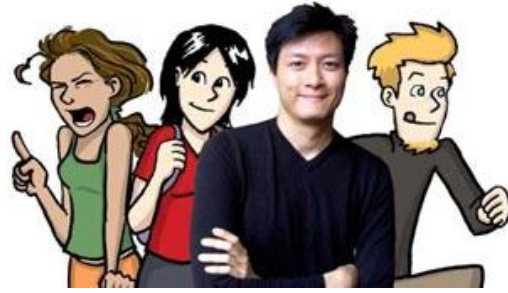
Guest Speakers

**Opening Speaker:
Jorge Cham**

May 5, 2010

18:00-19:00

ICT 102



Jorge Cham is the creator and artist of Piled Higher and Deeper (PHD), the comic strip about life (or the lack thereof) in grad school.

Often called the Dilbert of academia, PHD has appeared in the Stanford, MIT, Caltech and Carnegie Mellon newspapers among others, and it is published online where it receives over 7 million page views a month from over 1000 universities and colleges worldwide.

Jorge Cham was born and raised in the Republic of Panama. He obtained his B.S. in Mechanical Engineering from Georgia Tech and his M.S. and Ph.D. in Mechanical Engineering from Stanford University (specializing in Robotics), where he started drawing PHD. He was subsequently an Instructor and Research Associate at Caltech from 2003-2005, where his work focused on developing “Smart” Neural Implants. He has published and presented nationally and abroad on his Robotics and Neural Prosthetics research. He also travels and presents all over the world to thousands of graduate students, faculty and administrators on the graduate student experience.

Three PHD book collections have been published. In all, Jorge Cham’s books have sold over 48,000 copies to date.

To view Jorge’s comic strips, please visit: www.phdcomics.com

**Sessional Speaker:
Dr. Mostafa A. El-Sayed**

May 6, 2010

14:00-15:00

ICT 102



Professor Mostafa A. El-Sayed was born in Egypt where he received his BSc. He received his Ph.D. at the Florida State University with Professor Michael Kasha. After doing postdoctoral work at Yale, Harvard and Caltech, he joined the faculty at UCLA in 1961. In 1994, he moved to Georgia Tech and became the Julius Brown Chair, Regent Professor and Director of the Laser Dynamics Lab at Georgia Institute of Technology.

El-Sayed and his group (over 70 Ph.D. students and 40 Postdoctoral Fellows) have contributed to many areas of physical and materials chemistry research. They have been involved in the development of new techniques such as magnetophoto selection, picosecond Raman spectroscopy and phosphorescence microwave double resonance spectroscopy. Using spectroscopic techniques, they have been able to answer fundamental questions regarding ultrafast dynamical processes involving molecules, solids and photobiological systems. Since he moved to Georgia Tech, El-Sayed and his group became active in the study of the physical, chemical and photothermal processes of metallic and semiconductor nanostructures of different shapes. The shape dependent applications of the metallic nanoparticles in nanocatalysis as well as nanomedicine have also been demonstrated. Prof. El-Sayed has published over 500 peer-reviewed papers, given over 45 special named lectures and over 200 invited talks at National and International meetings. He has served on numerous international and national committees such as the Advisory Boards of NSF and Basic Energy Sciences of DOE and the National Research Council Board of Chemical Sciences. Prof. El-Sayed has served as the Editor-in-chief of the Journal of Physical Chemistry (1980-2004) and as the U.S. Editor of the International Reviews in Physical Chemistry.

Prof. El-Sayed is an elected member of the U.S. National Academy of Science, an associate member of the Third World Academy of Sciences, and an elected Fellow of the American Academy of Arts and Sciences, the AAAS, and the American Physical Society. He has received the 1990 King Faisal International Prize in Science and an Honorary Doctor of Philosophy degree from the Hebrew University. He has received a number of national awards such as the Fresenius, the Tolman, the Richard's medal, as well as other numerous local ACS section awards. In 2002, he received the ACS-APS Langmuir National Award in Chemical Physics and in 2007 was awarded Georgia Tech's highest award, "The Class of 1943 Distinguished Professor" for his long-term contributions to research, teaching and service. Most recently, Professor El-Sayed

became sole recipient of the 2007 National Medal of Science in chemistry "...for his seminal and creative contributions to our understanding of the electronic and optical properties of nano-materials and to their applications in nano-catalysis and nano-medicine, for his humanitarian efforts of exchange among countries and for his role in developing the scientific leadership of tomorrow". He also received the 2009 Ahmed Zewail Prize in Molecular Sciences "...for his seminal contributions to the understanding of the electronic and molecular dynamics and properties of systems with different length scales, ranging from molecules to nanoparticles to biomedical systems" at the 2009 Spring ACS conference in Salt Lake City, UT. In 2009, Prof. El-Sayed became a fellow of the American Chemical Society, an elected member of the Egyptian Academy of Science and Technology, an honorary fellow of the Chinese Chemical Society, and was also awarded the Medal of the Egyptian Republic, First Class, and the Glenn T. Seaborg Medal.

Keynote Speaker

The Right Honourable Joe Clark

May 7, 2010

17:00-18:00

MacEwan Ballroom-RM301



Joe Clark is generally ranked with Lester Pearson as being among the most effective Foreign Ministers in Canadian history. Mr. Clark was Foreign Minister when Canada negotiated the Free Trade Agreement with the USA, was a leader in fighting apartheid, took up its membership in the Organization of American States, fought the first Gulf War, and took significant initiatives in the Middle East and Asia.

He remains very active in international business and governance, as founder and chairman of a Canadian company harvesting underwater timber in Ghana, director of the BDA foundation, which teaches Congolese farmers to harvest and market medicinal plants, and an active participant in political reforms in developing countries. He has led international election observation teams during difficult elections in Mexico, Cameroon, the Democratic Republic of Congo, and Nigeria. In May, he and former US Secretary of State Madeleine Albright are leading a pre-election team to Lebanon. He is also a member of the not-for-profit Global Leadership Foundation, a small group of former Heads of Government and diplomats who help governments in crisis.

Mr. Clark believes that Canada brings two unique assets to world affairs right now. First, we are a developed country, which has won a high reputation in the developing world – we are a bridge, in a divided world. Second, we have become skilled at home in dealing with geographic and cultural diversity – in these dangerous times, those skills can prove more decisive than military or economic power.

Joe Clark was Canada's youngest Prime Minister, a widely respected parliamentarian, and an effective constitutional negotiator. He knows our own country intimately – but is also able to connect Canada to the wider world, identifying opportunities for Canadians abroad, and reinforcing our own sense of purpose at home.

Mr. Clark's will speak on, "Canada's Assets in a Changing World."

Panel Discussions

Friday, May 7, 2010

Time: 14:45-15:45

Location: ICT 102 - ICT Building – University of Calgary

Panelists

- Dr. Elizabeth Cannon, U of C President-Elect & Dean of the Schulich School of Engineering
- Dr. Fred Hall, Vice-Provost (Graduate Education)& Dean of Graduate Studies
- Daniel Bidulock, Acting GSA President
- James Lange, GSA President-Elect

Each panelist will start with a brief opening statement, after which questions from the audience will be moderated by session chair.

Graduate Students at the U of C: Experience, Involvement and Expectation

Graduate students have a unique position in the university as they take on positions that overlap the role of student, teacher and researcher. In many ways, graduate students underpin the university experience and enhance the university's research reputation. Recently, many research universities have either invested more dollars into graduate recruitment or have publically lobbied for a larger graduate population on their respective campuses. The GSA would like the panelists to discuss both the current position of graduate students at the University of Calgary and their vision for the future. The panel may choose to centre its discussion on the following questions:

- As the new president of U of C, what do you expect from graduate students?
- Are there any changes that you would like to discuss with graduate students?
- What is the role of graduate students in the university? What should it be?
- Are the contributions of graduate students recognized at U of C?
- What barriers exist to the pursuit graduate studies?
- What are the most important issues facing graduate students at U of C?

Networking workshop & Business cards printing event

Speakers:

- **Joel Wilkinson**, Graduate Student Career Coach, University of Calgary.
- **Julie Brown**, Career and Mentorship Coordinator, University of Calgary.

Date:

May 5, 2010

Time:

Networking Workshop: 4:30 pm – 5:30 pm

Business Card's Printing: 5:30 pm – 6:00 pm

Location:

ICT 122

“Keys of Chatting”

In this workshop, you will learn the skills to overcome fear, approach people, start a conversation, and ask the "right" questions as you work your way through a crowd building relationships. That's not all. Follow up with designing and printing your free business cards and you're ready for the Networking event held on May 6th.

Workshops

Job Market workshop

Confirmed Speaker:

- Tara Girvitz, Senior Team Leader, Legal Affairs, SemBioSys Genetics Inc.
- Sydney Vlieg – Stantec
- Human resources representative – PCL Construction Management Inc.
 - o Pamela Olive, HR/PD Manager
 - o Monica Lopez, HR/PD Coordinator,.
- Julie Brown, Career and Mentorship Coordinator, University of Calgary.

Date:

May 7, 2010

Time:

10:00 am – 12:00 pm

Location:

ICT 121

Join us in this "Panel Discussion Workshop" where Professionals from the Human Resource Department of such companies as Stantec, SemBioSys, and PCL share their insights on the hidden job market and what they look for in an "ideal candidate". Directly following the panel discussion will be an opportunity to conduct mock interviews with the professionals and receive their feedback on your performance.

Workshops

Ethics and Academic Integrity for Graduate Students

Date:

May 7, 2010

Time:

9:30 AM- 11:00 AM

Location:

ICT 116

This workshop is divided into:

- **How Can the Ombudsman Help Graduate Students?**

Presenter:

Robert Clegg

The University of Calgary's Ombudsperson

30 minutes

This part of the workshop will present:

A brief overview of the functions of Ombudsperson's office including issues relevant to all graduate students such as:

- How to manage and address conflicts with supervisors
- Changes of supervisor or additions of co supervisors
- What to do if charged with either an academic or non- academic violation
- Grade reappraisals, and
- What to do if required to withdraw from your program of study

- **Fair Dealing and Other User Rights in Copyright**

Presenter:

Rob Tiessen

Head of access services, University of Calgary Library

30 minutes

This part of the workshop will discuss:

- What can all Canadians do with copyrighted materials?
- What rights do educational institutions have under copyright?
- How has the CCH Supreme Court Decision enhanced fair dealing in Canada

- **A Discussion of Academic Misconduct: Examples and Consequences**

Presenter:

Dr. Brian MacIntosh

Associate Dean of Faculty of Graduate Studies

30 minutes

This part of the talk will be a discussion forum and will focus on:

- Faculty of Graduate Studies' policy on Academic Integrity and Ethics and
- How Faculty of Graduate Studies deals with plagiarism and other cases of suspected academic misconduct

Workshops

Dress for Success - Women's Wear

Speaker:

Linda Legate, store manager, Blu's Women's Wear

Date:

May 7th, 2010

Time:

10:00 am – 11:00 am

Location:

ICT 114

Join experts from Blu's as they demonstrate what to wear and what not to wear to an interview and to work. Learn how to transition seamlessly from jeans and hoodies into business attire. Discover the importance of creating a good first impression and why what you wear influences your professional success.

Workshops

Bringing Innovation to Life: Workshop on Intellectual Property Protection & Commercialization

Date:

May 7, 2010

Time:

11:00 AM – 12:30 PM

Location:

ICT 114

Presenters:

-David Reese, Acting Director, LBD, University Technologies International

-Jessie Kaur, Tech Analyst, University Technologies International

This workshop will identify the resources and services available to the University of Calgary (UofC) graduate students for intellectual property (IP) protection and commercialization. Discussion will address the various avenues for commercializing and protecting your inventions. What is the IP policy at the UofC and how does this affect you as a graduate student seeking commercialization opportunities? What is a patent and what is patentable? Learn about the process of protecting your IP and the timelines involved when publishing and patenting. Why is commercialization valuable and what is involved when commercializing your inventions. Learn how University Technologies International can assist you with the commercialization process and discover the best methods to present your technologies to companies.