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DISTINGUISHED LECTURERS

2019-2020

THE PROGRAM

The CIM Distinguished Lecturers program started in 1968 and has continuously provided a lineup of individuals who have shared their knowledge with the mining community for over five decades.

Every year, the lecturers are elected by their peers through the CIM Awards program and hold the title for a complete season (September to June).

CIM is privileged to count more than 260 of the industry's finest as its lecturers. Because the motto "once a lecturer, always a lecturer" defines our pride and dedication in ensuring that the learning curve is endless, a complete list of past lecturers is available

at www.cim.org, where you can benefit from the ever-growing pool of expertise that the program has to offer.

HOW IT WORKS

The Distinguished Lecturers program is offered to 41 CIM Branches, 10 Technical Societies and 12 Student Chapters. Universities can also request a lecture.

CIM National defrays the cost of air travel, while the requesting body covers local expenses (accommodation, transportation, etc.)

For more information, contact:

Dist_lecturer@cim.org | 514.939.2710 ext: 1344

To book a Distinguished Lecturer visit:

<https://www.cim.org/request-a-lecturer/>



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Betty-Ann Heggie

Consultant,
Betty-Ann Heggie Womentorship Foundation

Betty-Ann Heggie, a senior vice-president with PotashCorp (now Nutrien) retired in 2007 and currently serves as a corporate director, philanthropist, mentor and author. Devoted to getting more working women to the decision-making table, she founded the University of Saskatchewan's Womentorship program. To date, more than 2500 women have attended its professional development programs and networking events. She has written for many publications including Harvard Business Review and recently published a book, *Gender Physics, Unlock the Energy You Never Knew You Had to Get the Results You Want*. A member of Canada's Top 100 Most Powerful Women Hall of Fame and the Saskatchewan Business Hall of Fame, she was also given the Trailblazer Award from Women in Mining Canada and named one of the 100 Global Inspirational Women in Mining. Betty-Ann has received the Queen's Golden Jubilee Medal, the YWCA Lifetime Achievement Award and the U of S Alumni Mentorship Award.

The Gender Physics Leadership Advantage

Gender Physics is a revolutionary practice designed to help business leaders capture the advantages of both gender attributes for maximum impact and success. In some venues, situations or with some audiences, it is best to respond with a more confident, assertive Masculine Energy, while in others a caring, collaborative Feminine Energy works most effectively. Betty-Ann uses university research, and her own personal stories as a senior VP with the world's largest fertilizer company, to demonstrate how using a particular type of energy creates a particular result. To aid in the learnings, she has created a 'Go-To' Energy evaluation, Complementary Energy experiments and a step-by-step balancing process called the A+ Energy Model to activate behavioural change.

The results for those who adopt Gender Physics is to let go of established stereotypes and unlock the energy they never knew they had to get the results they want. Those in attendance will leave with a new way of looking at gender and be inspired to not only express their individuality, but to see the value in using the attributes of both genders.



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Brian Lee Crowley

Managing Director,
Macdonald-Laurier Institute for Public Policy

Brian Lee Crowley is managing director of the Macdonald-Laurier Institute, a public policy think tank focusing on how to use federal power intelligently in the interests of all Canadians. MLI is consistently ranked the top think tank in Ottawa. Crowley was also the founder of the Atlantic Institute for Market Studies (AIMS) in Halifax.

One of Crowley's interests is the economic importance and vitality of the natural resources. In particular, on the extent to which reconciliation with Indigenous people is already well-advanced along the natural resource frontier and how much Canadians have to learn from these experiences.

Over his long career, Dr. Crowley has distinguished himself as an author, a former Clifford Clark Visiting Economist with the federal Department of Finance, and as a frequent media commentator with expertise related to natural resources, Canada-US relations, foreign affairs, regional development policy, health care and more.

When Demands for Social Licence Become an Attack on Democracy

Activists who propagate social licence claims are undermining the rule of law and our democratic institutions. They are free to exercise their democratic right to publicly disagree with the decisions of duly constituted constitutional and democratic authority, and even to threaten politicians with a loss of support if particular projects go ahead. It is wholly undemocratic, however, to say that you simply disregard their decisions as without merit or foundation. Furthermore, the failing to critically analyze the concept of social licence is creating problems in Aboriginal communities. A good example is the Chevron Pacific Trail Pipeline in British Columbia. While the builder has managed to

win support from several First Nations groups, a small minority are still opposed and have threatened to block the development of the project. Relying too much on social licence allows First Nations groups that oppose development to hijack the desires of those who do. It also undermines important concepts, such as governments' and businesses' constitutional "duty to consult" with Aboriginals.



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Mayana Kissiova

Director, Tailings and Water Management,
Osisko Gold Royalties

Mayana Kissiova holds a bachelor's and master's degree in civil engineering from the UACG in Sofia (Bulgaria) and a master's degree in tailings management engineering from the Polytechnique Montreal. She has over 23 years of experience in engineering, design, construction and operation of tailings and water management facilities. Prior to joining Osisko Gold Royalties in 2018, she was principal in tailings management with Golder Associates Ltd. She was an active engineer of record for a number of mining properties in northern Quebec and lead tailings management design engineer for various projects in Canada, including Canadian Malartic, Laronde mine and Louvicourt mine, as well as internationally for Iamgold and Dundee Precious Metals properties. Mayana is committed to promoting a better understanding and control of the risk factors related to tailings and waste management through adopting best design, and management practices capitalizing on the lessons learned.

Tailings, waste rock and water are by-products of the mining industry

Tailings, waste rock and water are by-products of the mining industry. They have little or no economic value. However, the extraction of mineral resources generates large quantities of these materials, and variable techniques of storing them need to be developed. Important risks are associated with the management of these substances in the long term. If wrongly

assessed, the risk factors could lead to incidents with catastrophic consequences. Recent examples of design and management give an insight into this fast-developing engineering domain.



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Nathan Stubina

Vice President, Technologies,
Sherritt International Corporation

Nathan Stubina joined Sherritt International as VP Technologies in November 2018. Prior to that, he was managing director of innovation for McEwen Mining. With 30 years of international industrial experience, Nathan also worked at various major mining companies, including Barrick Gold Corp., Noranda Inc. and Falconbridge Limited.

Nathan holds a Ph.D., in Metallurgy and Materials from the University of Toronto and a B. Eng. in Mining and Metallurgical Engineering from McGill University.

Nathan is currently a member of the Association of Professional Engineers of Ontario (PEO), and was VP International of the CIM. He is a past-president of MetSoc (Metallurgy & Materials Society of the CIM), a certified Six Sigma Master Black Belt and a member of the Lassonde Institute of Mining's Advisory Committee at the University of Toronto. Dr. Stubina was named a Fellow of the CIM in 2012.

At the Intersection of Technology, Innovation and Diversity in Mining

Come prepared to argue both sides of the following: Is mining innovation an oxymoron?

It is well known that the mining sector is facing many difficult challenges: lower grade ores, smaller deposits, increasing costs, tighter margins, faltering capital markets, political risks, increased social and environmental demands, etc. If you ask senior mining executives, they generally agree that innovation is essential to the current and future survival of their companies; however, the decisions and

actions of upper management do not often reflect this imperative. This presentation examines some of the barriers to innovation and what we all can do to move our industry forward. Together, we will examine recent trends in technology and innovation, both from within and outside the mining industry.



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Theophile Yameogo

Partner,
EY National Mining & Metals Industry Co-Leader

Theo Yameogo is currently focused on enabling and fostering digital transformation and technology innovation across the industry to support core business excellence and enterprise growth.

He is a partner at Ernst & Young (EY), and co-leads the National Mining & Metals practice. Prior to EY, Theo was VP Digital Innovation at Dundee Precious Metals, where he helped the company on their digital transformation journey. He is a mining engineer with a Ph.D. in rock mechanics, and worked at mining operations in Saskatchewan, Quebec and New Brunswick, before embracing engineering and business consulting. Since 2012, Theo has been involved with many mining companies for various transformation initiatives in Canada and abroad, beyond digital innovation.

Theo is a professional engineer in Ontario; he holds an MBA with distinction from the University of Oxford, and a Ph.D. in rock mechanics from Polytechnique Montréal.

Industry 4.0 and Digital Transformation

Many of us in the mining industry are still not aware of what Industry 4.0 entails, yet other sectors have embarked on the wave of digital transformations that drive this newly coined industrial revolution. Digital transformation is quite simple, given that most people on the planet are embracing and living it on a daily basis. However, it seems that our sector, especially in Canada, is either oblivious or caught in the headlights, not knowing where to start, what to do, how to measure its value, or how to sustain it.

The objective of this lecture is to discuss and showcase frameworks and examples that will help mining companies assess, pilot, validate and implement digital transformation sustainably across the mining enterprise. Based on Theo's

experience working with the previous generation of mining powerhouses that were immersed in digital technologies, and using lessons learned working with multinational mining and metals on their digital innovation programs, this lecture will provide pragmatic recommendations anchored on the visionary objective of revolutionizing the mining and metals sector.



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