



CIM **DISTINGUISHED LECTURERS** **ICM** 2020-2021

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

For more information, contact:

Dist_lecturer@cim.org | 514.939.2710 ext: 1344

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.)

To book a Distinguished Lecturer visit:

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



Proudly sponsored since 1972 by the CIM Foundation, whose continuous support and generosity allows the CIM Distinguished Lecturers Program to connect CIM members with leading industry expertise.

The CIM Distinguished Lecturers program is owned and operated by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM).

Knowledge is power. CIM empowers you.



C.D. ('LYN')
ANGLIN
 Principal Consultant,
 Anglin & Associates

C.D. ('Lyn') Anglin, Ph.D. Geology, and P.Geo., registered with Engineers and Geoscientists of British Columbia, is Principal Consultant with Anglin & Associates. 'Lyn has more than 35 years of geoscience research and senior management experience in the minerals and mining sector. Her career has ranged from government to non-profit and the private sector, and she is now consulting. 'Lyn was recruited by Imperial Metals in Sep 2014 to take on the role of Chief Scientific Officer to help lead their recovery and remediation response to the Mount Polley tailings spill. Before joining Imperial, she was President and CEO of Geoscience BC, an innovative, industry-led geoscience research organization based in Vancouver. She has extensive public communication and engagement experience, and prior to her senior management roles in industry and at GBC, she spent 20 years with the Federal government in research management and science policy.

The Mount Polley Tailings Spill: Response and Recovery – 6 Years Later

Six years after a glaciolacustrine layer under the tailings dam at the Mount Polley Mine failed, and 25 million cubic metres of water, tailings and embankment materials spilled into the surrounding environment, significant progress has been made in remediating the spill impacts. The company has invested on the order of \$70 million on clean-up and repair. Human health and environmental impact and risk assessments, monitoring studies, and extensive remediation of impacted areas have been completed. Risk assessments indicate human health risks from the spill are low, while environmental impacts are low to moderate, with impacts primarily related to the homogeneous grain-size and low-organic content of the spilled tailings. The remediation response has therefore been focused on physical aspects of the spill. Ongoing monitoring indicates that impacted ecosystems continue showing positive signs of recovery. Communications with stakeholders and First Nations were maintained through regular community meetings, community newsletters, and site tours with regulators, First Nations, community representatives, and members of the local public.



EBE
SCHERKUS

Director, Tailings and Water Management,
Osisko Gold Royalties



CANADIAN MINING
HALL OF FAME

Ebe is the mastermind behind the transformation of Agnico Eagle Mines (AEM) into a global gold producer. Using his signature combination of people skills, hard work and perseverance, he expanded the company's operations from the familiarity of Quebec into Nunavut, Finland and Mexico.

Born in Germany, Ebe arrived in Canada as an infant. After growing up in Val d'Or, he graduated from McGill University in 1975 with a BSc in geology, and P Eng, geological engineering in 1991. Ebe worked in camps in northwestern Quebec and Red Lake, Ont. before being hired by AEM's Don LaRonde in 1985 to evaluate a struggling gold project later named after LaRonde. The resulting drilling led to a deep discovery and a production decision in 1987. By the end of 2018, the LaRonde mine had produced almost six million ounces. Ebe later developed the nearby Goldex and Lapa mines. As the company's president from 2005-2012, he led AEM's global expansion into Nunavut (Meadowbank, future Meliadine), Mexico (Pinos Altos, future La India), Finland (Kittila). Ebe was inducted into the Canadian Mining Hall of Fame in January 2020.

Social Licence to Operate in Virtual World

Finding an economic deposit does not necessarily mean it will be developed. Exploration and mine development by its very nature is expensive, high risk, often located in remote areas, potentially challenging political jurisdictions, shareholder activism, increasing regulatory requirements, overlapping regulatory agencies, cross cultural issues, anti-mining – climate change activism, technical challenges, availability of qualified and experienced labour and uncertain development lead times. As a result, a critical element in the successful of a deposit is to obtain a "Social Licence to Operate". To help accomplish this, mining exploration and development companies have increasingly resorted to using public relation firms, communication departments and social media to communicate with employees, communities, stakeholders, media, governments and regulatory bodies. With the recent Covid-19 pandemic, the use of video conferencing, virtual conferences popularized by such applications as Zoom have seen remote work and communication grow exponentially. Hardly a day goes by without extolling the benefits (mostly financial) of this new normal. "Offices will be downsized, commuting reduced, flexible work hours. This was already a trend prior to the pandemic. Covid-19 accelerated the process in the author's view. In an increasingly virtual, AI, devoid of human contact world, "Is there still room for a "hands on", "boots on the ground" to obtain this licence? Is it possible to gain the trust, transparency, understanding and respect required through a tablet or computer screen?"



JAMES
BUDAC
Metallurgist

James received his BSc at UBC in 1978. After working for a time with Agriculture Canada he obtained his PhD in Chemistry at UVic in 1988. After briefly returning to Agriculture Canada James and his family moved to Thompson, Manitoba where he joined the Technical Services group at Inco's Electrowinning refinery. Ten years later James took up a position with Sherritt's Process Technology group in their Fort Saskatchewan Operation.

Over the years James has volunteered his time with MetSoc: He took on the roles of secretary and chair of the Hydrometallurgy Section and helped coordinate the Ni/Co conference in Sudbury in 2008. Furthermore, James eventually became a member of the BOD of MetSoc, chaired the successful Conference of Metallurgists in 2017 and presided as the president of MetSoc from 2017 to 2018. In addition to the chairmanship of the COM, James also organized a symposium on "Enabling Innovation".

An Examination of the Roles of Rationalism and Empiricism in Refinery Troubleshooting

Often in metallurgy we are called upon to resolve production issues. These issues can range from a requirement to change product specifications to meet changing market forces to troubleshooting a process which has gone awry. The entire troubleshooting process can be multifaceted requiring a blend of empirical and rational steps. Among other things, I will discuss the positive and negative consequences that empiricism and rationalism bring to the resolution of production issues. As part of the discussion I will cite examples from the worlds of economics and medicine where competition between rationalist and empiricist approaches has heated up over the past few decades.



JAMILE
CRUZ

Founder and CEO,
I&D 101

Jamile is a Business Transformation Executive and the Founder of I&D 101, a consulting firm specialized in Inclusion & Diversity strategies. Having moved to Canada as an engineering graduate, she worked directly for leading organizations such as Hatch, Vale, and Accenture, and consulted for many mining clients over her 20-year career, learning what it takes to deliver successful capital projects and develop high performing teams.

Her current focus is on creating more inclusive organizations and improving the experience of under-represented groups in multiple industries, especially in mining. Always involved in transformation projects, not only in Canada, but also in her home country, Brazil, she has recently led the development of an Action Plan to advance the participation of women in the mining industry, together with IBRAM (Brazilian Mining Institute), the newly formed Women in Mining Brasil and many other partners, including the Canadian government.

The Link Between Inclusion & Diversity and High-Performance Operations

Increasing workforce diversity is a priority in Canadian mining. According to research conducted by Mining Industry Human Resources (MiHR) and CIM's Diversity and Inclusion Advisory Committee, the industry is expected to need more than 95,000 new hires in the coming decade drawn from a highly competitive labour market predicting just over 61,000 new entrants to the sector. To bridge this gap, the industry will need to compete with other sectors to attract, retain, and promote employees from non-traditional talent pools including women, Indigenous people, skilled new comers, and other under-represented groups.



MONICA
OSPINA
Founder and Director,
OTrade

Monica is a Corporate Social Responsibility and Sustainability expert with recognized experience in the design and implementation of CSR strategies that support operational productivity while building trusting relationships with communities impacted by mineral exploration and mining operations. Her expertise in transforming conflict into development and human and social capital into value for investors has contributed to ensuring operational readiness, improving the perception of mining and the well being of communities across regions.

As an author, Monica created the Local Community Procurement Program (LCPP), a sustainable supply chain model, awarded by the IFC-World Bank in 2012. She has also contributed to the IFC-World Bank's Guide for the Early Stakeholder Engagement (published in 2015) and participated in discussion groups for the Sustainable Development Goals (SDGs) at the RIO + 20 World Convention on Sustainable Development in 2012.

Social and Human Capital: Strategic Investment to Guarantee Non-Conflict and Sustainable Future for Mining, and its Supply Chain

The world is shifting the attention to address fundamental issues around social justice and environmental protection. Investors among stakeholders shared concerns around conflict and economic progress. Mining is at the core of public scrutiny due to its activity in the developing world. Its close connection with communities under stress makes the Mining industry a catalyst for development or a source of conflict.

Mining contribution to society lies on fundamental pillars to lift humanity; social development and industrial supply chains.

Today's attention to ESGs challenges companies to demonstrate a strategic approach to the environment, society, and governance. But what is a strategic investment in social and human capital? The return on investment ranges from sustainable global supply chains that ensure employment opportunities for millions of people, to non-conflict, that provide operational stability.

This presentation provides an analysis of how to avoid social conflict and transform social risk into opportunities for the local and global economies.



NATHAN
ASHCROFT

Strategy and Business Development Leader,
Stantec

Nathan is a professional engineer and has over 22 years of experience in a wide range of leadership roles. His career has spanned the development of a range of energy projects across different parts of the globe in engineering and project management roles, including work in a startup company. Nathan has strategically formed initiatives and is a leader within energy transition and clean technology as it applies to our ever-changing energy world. Nathan has expertise in forming specialist teams to tackle major multi-faceted challenges. He has worked as advisor to government on energy related policy and initiatives. He led the high-profile Bitumen Beyond Combustion study and follow up, has led the Stantec Hydrogen team to take on global projects, along with now leading efforts for Geo-thermal adoption. Nathan is currently a director with the Alberta Clean Technology Industry Alliance.

Bitumen Beyond Combustion

The BBC program determines the potential of Alberta oil sands components for producing non-combustion products (i.e., products that are not fuels, such as gasoline, diesel, and heating oil). Examples of BBC products could include carbon fibers, graphene, polyurethanes, polycarbonates, controlled-release fertilizers, and high-quality asphalts. Work proceeded to 5 webinars presented to an audience all over the globe.

Hydrogen for Industrial Uses

Breaking down the different methods, technologies, economics of producing Hydrogen (grey-blue-green) and how the Hydrogen produced can have a major impact on GHG generation at Industrial facilities. Presentation will include handling, safety considerations, metallurgy, uses and true potential for Hydrogen. Stantec is involved with government, major companies in Canada and across the globe on the exciting but challenging potential of Hydrogen.

Natural Gas Decarbonization (NGD)

Natural Gas is rightly growing as a cleaner lower emitting GHG source of energy, However, with any energy transition to ever more cleaner sources of fuel. Natural gas decarbonization constitutes the splitting of natural gas into its components: solid carbon and hydrogen. Nathan and Stantec team have been working on mapping out the various NGD routes for producing hydrogen, lean fuels and carbon products. NGD technologies are currently in the early stages, essentially pre-commercial. Work has recently been completed to understand the carbon products specifically, shining light on the potential to produce a synthetic graphite that can have many future applications, include within lithium-Ion batteries and the electrification of vehicles into the future. Carbon capture and storage overviews and possibilities can be discussed also.