



CEMI to host Forum at CIM 2010

You are invited to attend a forum at the CIM conference showcasing some of CEMI's recent achievements and current strategic research program activities
Tuesday, May 11, 2010; Room 205.

ValueMine – Release of Wiki mine design manual
MineTech – Ventilation on demand project overview
GeoRisk – Fault slip control program
MineTech – SymBot - an open mobile equipment monitoring device
ConstructMine – Rapid mine construction program

Visit us at the **CEMI booth #934**
[CIM Conference and Exhibition 2010](#)
May 9-12, 2010
Vancouver, British Columbia

Pre-concentration Short Course



Dr. Andrew Bamber presents:
Approaches in Mine-Mill Integration: Economic Evaluation of Pre-concentration Opportunities on March 22-23, 2010 in the Willet Green Miller Centre, in the Auditorium. [Register Online](#)

Summary: Mine-Mill Integration encompasses a range of approaches for the integration of novel technologies into the mining system to improve the efficiency and effectiveness of the mineral extraction and beneficiation process, and therefore reduce energy and costs. Mine Mill Integration approaches the integration of mineral sensing and sorting systems as well as systems for ore preconcentration such as dense media separation into the mining system. Economic evaluation of these opportunities to integrate value-added technologies such as pre-concentration into the flowsheet requires consideration of capital, operating and revenue impacts both up and down the mining value chain. The course presents a comprehensive and systematic approach for interpreting results from pre-concentration testwork and discusses several case studies which fully describe the opportunity to be considered.

Deadline to register is March 9th, 2010.

Lecture Series

Dr. Sam Spearing presents: **"The future and political threats facing the US coal industry"** on March 11th, 2010 at 4:00pm in the Willet Green Miller Centre, in the Auditorium.



Summary: Currently the US mines over 1.1 billion tons of coal per year and 90% of this is used to generate almost 50% of the nation's electrical power. There is a growing lobby in the country armed with a blend of facts and fiction that is trying to effectively curtail or even stop coal mining and this would be a disaster for the country. This presentation will review the coal mining industry, the global warming debate and the threats to the industry in the USA.

For people who are unable to attend in person, the lecture will be broadcast live on the internet. To learn how to join the lecture or view the recording visit:

<http://www.miningexcellence.ca/events/lectures/>

If you wish to be added to the mailing list for the CEMI Lecture Series and/or if you wish to make a presentation, suggest a topic, please email us at webcast@miningexcellence.ca

Visit our [website](#) to review our Annual Report which profiles all of our Strategic Research Programs:

FindMine

Mineral Exploration Research & Geophysics

MineDeep

Cost Reduction & Productivity Enhancement

ValueMine

Mine Design to Extract Optimal Mine Value

GeoRisk

Risk Mitigation for Mining Highly Stressed Ore Bodies at Depth

ConstructMine

Underground Mine Construction

SustainMine

Environmental Studies & Mine Sustainability

MineTech

Enabling Technologies Supporting R&D





Research Highlights

International Fault Slip Control Research Initiative (IFSCRI)

CEMI is hosting a series of Experimental Design Workshops for its proposed International Fault Slip Control Research Initiative (IFSCRI), a multi-million, multi-year program with a vision to develop a globally-recognized research initiative to improve fault slip control techniques in underground mines. Involving the input of research and industry leaders in seismicity, geophysics, structural geology, data integration and modeling as well as mine engineering, these multidisciplinary roundtable sessions are intended to provide valuable insights into the novel research and technology R&D projects needed to better understand how to control the energy release associated with fault slip in underground high stress ore bodies. In so doing, this CEMI-led collaboration is helping to develop safer, more sustainable mines for the future. To learn more about this exciting initiative visit:

<http://www.miningexcellence.ca/projects/p1071/>

New Software for Assessing Risks

CEMI has unveiled 2 new software tools to assess geotechnical risk and uncertainty. CEMI worked with Mira Geoscience to develop Geohazmap, a plug-in that works within its Gocad Mining Suite and with Rocscience Inc. on refinements to its Phases2 software tool.

Gocad brings together individual datasets that collectively interact to identify which areas are likely to be more prospective for finding an orebody. Geohazmap uses the same approach to identify hazards in the underground geotechnical environment using data on rock strength, stresses and structure. Read more about these exciting projects in the March issue of the Sudbury Mining Solutions Journal on pg 12.

<http://www.sudburyminingsolutions.com/>

North Baffin Island Monitoring Project

This CEMI funded research project between Symbioticware Incorporated, Baffinland Iron Mines Corporation, and Laurentian University established an embedded network for weather monitoring across North Baffin Island.

Mining and other operations in Canada's far north must deal with not just extreme weather but a climate in flux because of global processes. Weather monitoring is especially important for day-to-day operations, for seasonal planning, and for evaluating weather-related risks. However, in such an extreme and remote habitat, collecting environmental data is a daunting task. Automated sensors are an ideal solution as they can survive and operate under extreme conditions. However, existing monitoring equipment has not kept up with modern needs for on-site, intelligent decision-making, interoperability of components from different sources, the ability to create multi-habitat monitoring hubs, and the need for bi-directional satellite communication. In the summer of 2009 Symbioticware addressed a number of these needs by installing new technology which greatly enhanced the functionality of existing "traditional" monitoring equipment. Specifically, Symbioticware installed "SymSats" at three existing weather stations located in a north-south transect across north Baffin Island, at the sites of operation of Baffinland Iron Mines, Inc. The SymSats enabled data retrieval via satellite and set up the cyber-infrastructure that will allow researchers and industry to now build a broad-ranging environmental monitoring network.

Hoist Rope Inspection – EMAT Integration

CEMI managed the EMAT integration program on behalf of Vale Inco. C-CORE under contract, integrated the functionality from EMAT into the Rotescograph v2 application. The work included the following deliverables: Analysis Pane Functionality, LF Analysis Module, and LMA Analysis Module.

The software integrates the core functionality of the EMAT analysis package (Loss of Metallic Area (LMA) deconvolution filtering and Local Fault (LF) signal enhancement using wavelets) into Rotescograph-2. The new software application will be known as Rotescograph-3.

The functionality of the new software integration allows the operator access to digital information. In addition the software identifies faults, highlights them both on screen and in tabular form. Events can be manually added or removed and events can be joined.