

January 21st, 2018

Time	Short Course Title	Short Course Title	Time	Short Course Title	
8:00am	Workshop on Advances in Sensor Based Sorting	Workshop on National Instrument 43-101 for Process Engineers		Bulk Solids Handling: How to Avoid Being a Statistic!	
	Objectives: The course will present the state of the art for sensor based sorting. The workshop discussions will be recorded and summarized in a report to all attendees. The report will support the creation of a roadmap for advancing the development of sensor based systems for the mining industry.	Objectives: The course will present securities regulatory expectations on content of the technical reports the best industry practice for the preparation of technical reports to meet the objectives of National Instrument 43-101, its companion policy and the CIM best practice guidelines.		Objectives: This course will give you a strong fundamental understanding of bulk solids and their behaviour, along with the general principles and practical applications of solids flow. You'll learn critical design methodology for dealing with bulk solids problems or planning for new installations or plant expansions which incorporate solids handling.	
	Cost \$400 Full Day Course	Cost \$400 Full Day Course		Cost \$400 Full Day Course	
	Course Instructors: Bern Klein, UBC Norman B. Keevil Institute of Mining Engineering Brent Hilscher, Sacre Davey Andrew Bamber, MCESS Doris Ham-Galvez, Hatch	Course Instructors: Greg Gossan - Amec and Tony Lipiec - Fluor		Course Instructor: Tracy Holmes - Jenike & Johanson Ltd.	
12:00p	Lunch		12:00p	Lunch	
	<p>Description: The case for sensor based systems for ore sorting and classification to increase mine productivity is well known. Despite the benefits, the uptake of the technology has found limited application. The obvious conclusion would be that there are</p> <ul style="list-style-type: none"> • significant technology issues still need to be resolved • predicted benefits are not sufficient to justify a business case for adoption • confidence in the realization of the predicted benefits is too low <p>The goal of the workshop will be to present the state of the art of sensor based sorting and identify the challenges, barriers and opportunities. Each session will include a 20 minute presentation and 40 minutes of discussion to address specific challenges. The outcome will be a roadmap for technology development to advance sensor technologies and systems for the mining industry. Specific topics that will be presented are listed in the outline.</p>	<p>Description: NI 43-101 Technical Reports have become an internationally recognized standard as the go-to summary document for public companies' mineral projects. Technical reports that meet Form 43-101F1 content requirements, prepared by appropriately qualified persons, in compliance with NI 43-101 standards, have improved the quality of information available to the investing public. They also allow investors and securities regulators to compare past and current statements by the project owner to the relevant technical report content that should support those statements. This reality check to the filed technical reports has contributed to a more credible mining disclosure regime in the Canadian capital markets, and is one of the reasons Canada leads the world in the number of listed mining/exploration companies and the amount of capital raised for mineral projects.</p>		<p>Description: In this course, a review of bulk material flow fundamentals is presented, including common flow problems, types of flow patterns in equipment, and how flow properties of bulk solids are measured. Practical bin, hopper and feeder, chute, and stockpile design and troubleshooting techniques are discussed. The lectures are supplemented with real-life industrial case histories to illustrate the complex concepts taught.</p>	
4:00p	End of Day		4:00p	End of Day	