Developing a mine is a time consuming and expensive business. It can take decades of geological, financial, and environmental studies to determine whether there is enough quantity of a material at an acceptable quality to support a profitable business. Often risks and opportunities associated with the estimated resources for mining projects are not fully understood, not recognized on time, or ignored, which can lead to potential failure of the project. Risk due to underestimation or overestimation of grades and tonnages can certainly be a major factor that compromises the projected financial health of the mining project.

Mathematical modeling can improve confidence in strategic resource estimation. Models must be detailed, have justifiable parameters, and be validated. Evaluating risks and opportunities via a resource model will lead to actions that result in:
• Reducing cost by minimizing uncertainties in production
• Optimizing investment opportunities by realizing opportunities
• Possibilities of maximizing the value of the projected resources using more than one indicator.

Incomplete or inaccurate understanding of the orebody and estimated resources may result in negative consequences such as devaluation of assets, ore-waste misclassification, and reduced confidence in financial projections.

All decision makers within your operation should have advanced training in mineral resource estimation, including:
• Exploration geologists
• Mine developers
• Geologists, mining engineers, and managers in existing mines
• President, vice presidents, and operations managers
• Financial professionals and investors

Attend Strategic Resource Estimation for Mining Project Development before the 2016 MinExpo International to gain practical knowledge of best practices in mining resource estimation. Utilizing anonymous case studies based on real data, participants will learn to assess various risks and opportunities associated with resource estimation in typical exploration and mining projects. The application of international codes for reporting will also be discussed. This course offers geologists and mining engineers improved methods to quantify project risks in the early stages of project development, saving companies from potential loss in value.
Course Outline
This course will allow participants to gain knowledge on best practices in mineral resource estimation. Using anonymous case studies attendees will learn various risks and opportunities associated with resource estimation in typical exploration and mining projects. Further roles of competent persons and application of international codes for reporting will also be discussed.

Day 1:
• Introduction
• Project cycle
• Resource estimation at various stages of the project
• Lessons from industry practice
• Resource models and resource estimation
• Components of a resource model
• Introduction to international reporting standards

Day 2:
• Elaboration of resource estimation process: database quality, geology model, interpolation, cutoff grade, reporting
• Explanation of “eventual economic extraction”
• Resource model validation
• Advanced techniques in resource modeling

Instructor Dr. Abani Samal has nearly 20 years experience in various commodities including gold, iron ore, Cu-Mo-Au-Ag, and Pb-Zn-Ag deposits around the world. His contributions to the mining industry are well recognized through his publications and presentations of his research at various national and international conferences. Dr. Samal has extensive training (MS and PhD) in economic geology and geostatistics. He is acknowledged as an expert in advanced geostatistics and mineral resource estimation. Dr. Samal is a registered member of SME, a Certified Professional Geologist (CPG), and a fellow of the Society for Economic Geologists (SEG). He is an adjunct associate professor at University of Utah.

Logistics/Lodging
Registrants are responsible for their own travel arrangements, transportation, lodging, and meals. A catered lunch will be provided daily. There are many hotels located near the university, and the Las Vegas Strip and Las Vegas Convention Center are minutes away.

Registration
Register online at continuingeducation.unlv.edu.
Dates: Saturday, Sept. 23-Sunday, Sept. 24
Time: 8 a.m.-5 p.m.
Registration fee: $1,599
Course #: 163MI1100
Location: UNLV Paradise Campus,
851 E. Tropicana, Las Vegas, NV 89119

Questions?
Reach UNLV Continuing Education by phone at 702-895-3394 or via email at continuing.education@unlv.edu.