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SEMINAR:

TBM Performance Prediction, Background and State of the Art

PRESENTED BY: DR. JAMAL ROSTAMI, COLORADO SCHOOL OF MINES

Performance prediction of TBMs is an essential part of project scheduling and cost estimation. This process involves a good understanding of the complexities in the site geology, machine specification and site management. Various approaches have been used over the years to estimate TBM performance in a given ground condition. Many of them were successful and within an acceptable range, while some were missing the actual machine performance by a notable margin. Experience shows that the best approach for TBM performance prediction is to use various models to examine the range of estimated machine penetration and advance rates and then choose a rate that best represents the working conditions that is closest to the setting of the model used for the estimation. This allows engineers to avoid surprises and to identify the parameters that could dominate machine performance in each case. This presentation reviews the existing models for performance prediction of TBMs and some of the ongoing research on developing better models for improved accuracy of performance estimates and increasing TBM utilization.

Dr. Jamal Rostami is an Associate Professor and the Alacer Gold/Haddon Chair in the department of Mining Engineering at Colorado School of Mines. Dr. Rostami received his BS in mining engineering from the University of Tehran and graduated from Mines with a MS and PhD in mining engineering. Dr. Rostami has over 26 years of experience in design, management, research and teaching in the field of mining, tunneling and underground construction. He is a registered professional engineer in Maryland, Pennsylvania and Virginia. He was also the 2014 recipient of the Pittsburgh Coal Mining Institute of America's Stephen McCann Memorial Educational Excellence Award. He is also the founder of Professors Without Borders and a founding member of Iranian American Academics and Professionals.

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BE 108

*LUNCH WILL BE PROVIDED

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