

**INNOVATIONS IN
MINING ENGINEERING
(IME) 2013 Conference**

September 9th, 2013
MARRIOTT HOTEL AT LAMBERT
INTERNATIONAL AIRPORT
10700 PEAR TREE DRIVE
SAINT LOUIS, MISSOURI 63134

Outline of Mechanical Excavation and Mining Short Course



Coordinator:

Jamal Rostami, PhD, PE

**Department of Energy and Mineral Engineering,
Pennsylvania State University**

Credentials:

Education

- Ph.D. - Mining Engineering, Colorado School of Mines, 1997
- MSc. - Mining Engineering, Colorado School of Mines, 1992
- B.Sc. - Mining Engineering University of Tehran, 1987

Experience

- Associate Professor, Centennial Mining Eng. Chair, Dept. of Energy and Mineral Engineering, Pennsylvania State University since July 2007.
- Full time consultant working with CDM, Brierley Associates, Jenny Engineering, Co, on various tunneling projects between 2000-2007
- Assistant professor, Mining Eng. Dept., University of Tehran, 1998-2002
- Assistant professor, Deputy Director, Earth Mechanics Institute (EMI) of Colorado School of Mines, 1997-1998.
- Research Assistant, Laboratory Manager, Earth Mechanics Institute (EMI) of Colorado School of Mines, 1990-1997.

Area of Specialty and Research Interest

- Mechanical Tunneling/mining, TBM, Roadheader, shaft and raise boring
- Experience with continuous miners, Longwall drum shearers, road milling
- Machine selection, design, and performance analysis/optimization
- Abrasion and tool wear
- Rock Mechanics and ground support
- Underground coal and hard rock mining
- Geotechnical investigation and rock mechanics testing
- Drilling and rock characterization while drilling.



Dr. Rostami has over 24 years of combined design, management, research, and teaching experience in the field of mining, tunneling, civil infrastructure, and underground construction. This includes advanced and mechanized tunneling, microtunneling, directional drilling. Projects varying from feasibility study to design, execution, and post construction analysis in tunneling. Experience in project management, planning and execution of geotechnical investigations, procuring of mining and tunneling equipment, cost estimation, bid preparation, and feasibility analysis for mining and underground construction projects. He is actively involved in several ongoing tunneling projects in various capacities. This includes tunneling projects in the US, Canada, and Middleeast. He has received his PhD in Mining Engineering, from Colorado School of Mines in 1997, specializing on mechanical excavation and tunnel boring machines. He has been a faculty of Pennsylvania State University in the since summer of 2007, also been a faculty of University of Tehran and Colorado School of Mines (97-2002). Dr Rostami has also worked a senior tunnel engineer and consultant with well known consulting companies in the US on various tunneling projects around the world.

He is active member of several professional societies around the world including SME, ARMA, ISRM, ITA, ACSE, ISEE, and Member of executive committees on several conferences and symposiums. Dr. Rostami has published over 100 papers including 18 peer reviewed papers and over 50 technical Reports. He has developed and offered several short courses on mechanical excavation, geotechnical investigation, shaft construction, and tunneling for various organizations. He is also a registered Professional Engineer (PE) in State of Pennsylvania, Maryland, and Virginia.

Proposed Outline and Course Agenda:

	Topics	Presenter	Duration	Start Time
Session 1 Development	Opening remarks/Welcoming note	Jamal Rostami, PSU	10 min	1:00
	Cutting tools, classification, Selection	Jamal Rostami, PSU	30 min	1:10
	Tunneling Machines	JR or Guest	40min	1:40
	Shaft/Raise Machines	JR or Guest	40min	2:20
	Coffee Break		15 min	3:00
Session 2 Production	Surface Miners	JR or Guest	30 min	3:15
	Longwall Machines	JR or Guest	30 min	3:45
	Continuous Miner	JR or Guest	30 min	4:15
	Mechanical Excavation R&D and Discussions	Jamal Rostami, PSU	15 min	4:45
	Closing Remarks			5:00

Program starting at 1:00 pm and closing at 5:00 pm on Monday Sept. 9th 2013.

For more information on the program you may contact:

<p>Technical coordinator: Jamal Rostami, PhD, PE Associate Prof, Dept. of Energy & Mineral Eng. 102 Hosler Building Pennsylvania State University University Park, PA 16802-5000 Phone: 814-863-7606 Fax: 814-865-3248 Email: rostami@psu.edu,</p>	
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