ACG AUSTRALIAN CENTRE FOR GEOMECHANICS

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View the program

Geotechnical Engineering for Open Pit Design and Operations Seminar

8:00–12:30 AWST, 28 October – 1 November 2024

Seminar Room 4, University Club, The University of Western Australia, Perth, Western Australia and Online

The ACG is committed to supporting the development of modern, efficient and profitable mining operations throughout the world.

To this end, the ACG presents worldwide training courses and events; the objective of which is to rapidly develop capacity through technology transfer and teaching best practice that enhances mining organisations' profitability and minimises future environmental impacts from their mining operations.

This intermediate seminar will be held both in person and online, facilitating participation from anywhere in the world.

ABOUT THE SEMINAR

This ACG event will be presented by industry personnel involved in the geomechanical, blasting and hydrogeological aspects of open pit analysis. They bring together a wealth of experience to share with event participants.

The seminar is designed for practical operational personnel, mine planners, mining engineers, geologists, blasting practitioners and anyone involved in day-to-day open cut operations.

Where available, presenter seminar material shall be sent to the attendees prior to the seminar.

Registration includes morning tea and lunch.

TOPICS INCLUDE

- Slope optimisation
- Application of three-dimensional methods
- Structural data gathering and interpretation
- Slope monitoring and its interpretation
- Risk management and operational safety
- Slope stability in weak rocks and rock dumps
- Constructing geotechnical models
- Bench design and implementation
- Case studies
- Rockfall and runout
- Hydrogeology
- Blasting
- Mine closure

FACILITATOR

Professor Phil Dight
Professor of Geotechnical Engineering
Australian Centre for Geomechanics

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SPONSORSHIP

Sponsorship opportunities are available for this event, providing access to a very specific and engaged audience. Contact the ACG for information.

PROGRAM*

DAY ONE – 28 October 2024	
07:30	REGISTRATION
08:00	Welcome and introduction *Professor Phil Dight, Australian Centre for Geomechanics*
08:10	Keeping the geo in geotechnical models *Dr Felicia Weir, PSM*
Structural data gathering and interpretation	
08:55	Structural data gathering and interpretation *Diane Walker, SRK Consulting*
09:40	Data collection, storage and interpretation *Joe Seery, Bastion Geotechnical Pty Ltd*
10:25	MORNING BREAK
10:55	Constructing geotechnical models *Ian de Bruyn, SRK Consulting*
11:40	Laboratory testing for defect shear strengths: a case study comparing natural defects and saw-cut samples *James Watton, PSM*
12:25	Discussion
12:30	LUNCH / DAY ONE CLOSE

DAY TWO – 29 October 2024	
Case studies	
08:00	Open pit design verification *Daniel Strang, PSM*
08:45	Corporate risk management in practice – the prevention of a catastrophic outcome and the role of real time monitoring *Wouter Hartman, Cartledge Mining and Geotechnics*
09:30	Design optimisation of a large copper open pit mine in the central Andes, Peru *Maximiliano Adrove, MMG Limited, Peru*
10:15	MORNING BREAK
10:45	Rockfall risk management *Dr Felicia Weir, PSM*
11:30	Rockfall and risk management: Part 1 *Bruce Hutchison, BJH Geotechnical Services*
12:15	Discussion
12:30	LUNCH / DAY TWO CLOSE

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DAY THREE – 30 October 2024	
08:00	Rockfall and risk management: Part 2 *Bruce Hutchison, BJH Geotechnical Services*
08:45	Case study: the challenges and learnings from constructing a pit backfill dump into a pit lake, with high tip-heads and legacy pit slope hazards *Dr Will Darlington, Grange Resources*
09:30	Geotechnical challenges in deep hard rock mines - Newmont Boddington case *Dr Michele Salvoni, Newmont Corporation*
10:15	MORNING BREAK
10:45	Learning from and managing a significant saprolite instability *Christian Holland, AngloGold Ashanti*
11:30	Key considerations for simulating multi-scale wall instability in open pit mines *Dr Sevda Dehkhoda, Beck Engineering*
12:15	Discussion
12:30	LUNCH / DAY THREE CLOSE

DAY FOUR – 31 October 2024	
08:00	Critical fault characterisation and modelling for geotechnical slope design at a large open pit gold and copper mine *Didy Ramli, Mining One*
08:45	The impact of model confidence in slope optimisation, and how we can apply a semi-quantitative approach to define a DAC for routinary use *Dr Arturo Maldonado, BHP*
Hydrogeology	
09:30	Importance of surface water in the slope design process and emerging monitoring techniques *Alexander Rogan, PSM*
10:15	MORNING BREAK
10:45	Relevance of understanding groundwater to improve pit slope stability *Martin Brown, ITASCA*
11:30	Use of mine monitoring in risk management and operational safety *Dr Neal Harries, Hexagon*
12:15	Discussion
12:30	LUNCH / DAY FOUR CLOSE

DAY FIVE – 1 November 2024	
08:00	The role of InSAR as a tool for slope monitoring and mine risk management *Jessica Morgan, TRE Altamira*
08:45	Qualifying and quantifying ground-based radar data for use in pit slope monitoring *Sharla Coetsee, Reutech Mining, South Africa*
09:30	Wall control blasting to minimise vibration intensity: a case study *Richard Sullivan, Blast It Global Pty Ltd & Mark Killip, MEC Mining*
10:15	MORNING BREAK
10:45	Statistical analysis of Rockspot rockfall data for risk evaluation *Jemimah Kutkue, Newmont Corporation*
11:30	Analysing rock slope stability through different lenses – case study comparing stereonet analysis with 3D LE *Dr Alison McQuillan, Rocscience Inc.*
12:15	Discussion
12:30	LUNCH / SEMINAR CLOSE

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