

## **Conference Report: The Eighth International Conference on Deep and High Stress Mining 2017**

The Australian Centre for Geomechanics team was excited to host almost 180 delegates, speakers, sponsors and exhibitors at the Eighth International Conference on Deep and High Stress Mining, held in Perth, 28–30 March 2017. More than 40 per cent of delegates from 14 different countries visited Perth to attend this event.

The conference promoted discussion and documentation of the latest technologies and practices of mining in deep and high stress environments. The technical programme was focused on geomechanics issues with themes such as seismic monitoring, ground support and numerical modelling featuring highly. The more traditional mining engineering themes of deep mine planning and design as well as ventilation were also discussed.

The programme consisted of 66 high quality presentations, representing the themes of rockburst and laboratory investigations, rock mass characterisation, seismic hazard/risk, geotechnical design methodology, ground support – dynamic support design/selection and element performance, seismic monitoring and analysis, in situ stress determination and measurement, ground control, numerical modelling methodology, managing challenging conditions, seismic inversion, seismic responses and re-entry analysis, overbreak and rockfall, and squeezing ground and weak rock.

Chaired by the ACG's Dr Johan Wesseloo, the conference's opening address was delivered by Graham Ehm, AngloGold Ashanti Ltd and Mining 3 (formerly CRC Mining) whose presentation "Deep mining – an investor's perspective" was an interesting and insightful start to the event. This was followed by keynote address "Data management and geotechnical models" by Emrich Hamman, AngloGold Ashanti Ltd.

Day two of the conference began with William Joughin, SRK Consulting (South Africa) (Pty) Ltd, whose keynote address was titled "Dealing with uncertainty and risk in the design of deep and high stress mining excavations".

On day three, our third keynote address "Shear ruptures of extreme dynamics in laboratory and natural conditions" was delivered by Professor Boris Tarasov, The University of Western Australia.

The conference's associated events included the ACG Ensuring High Quality Seismic Data for the Mining Industry Workshop, with 35 delegates in attendance. The ACG Developments in Rock Stress Measurements and Monitoring Seminar attracted 34 attendees.

The ACG was proud to have the participation of our valued sponsors and exhibitors. Many thanks go to New Concept Mining and Normet who were our Major Sponsors. Trade exhibitors were DSI Underground, ESG Solutions, Fero Strata, Geobrugg, Inflatable Packers, Jennmar, Laser Metal Pressings, Mira Geoscience and Stratacrete.

The mXrap Consortium was our Student Registration Sponsor whose generous support allowed Curtin University student, Behrooz Rahimi, to attend as a delegate and take advantage of the learning and networking opportunities that the conference provided.

Behrooz said of the experience: *"I could take advantage of the multitude of activities throughout this exceptional event, which made it possible to develop personal growth, networking within academia and industry, and learning... I had a chance to meet new people and make new friends from different countries, which will be worthwhile in my future research"*.

In an exciting unveiling of ACG's new Online Repository for conference proceedings, SRK Consulting, our Open Access Sponsor, enabled all 66 Deep Mining 2017 papers to be freely downloadable.

The ACG Online Repository of Conference Proceedings was created in order to make ACG conference papers more accessible for industry and academia. Since 2005, the Australian Centre for Geomechanics (ACG) has published highly technical conference papers across the geotechnical mining spectrum, including: underground and open pit mining, paste and thickened tailings and mine closure and this repository aims to provide the mining geomechanics fraternity with open access to these peer-reviewed conference papers that may assist readers to maintain and develop their skills, knowledge and capabilities.

Aside from allowing users to freely download many past and current conference papers, the site features many useful functions. This highly interactive and searchable repository provides importable citation information in various formats, links to the paper authors' profiles on ORCID, ResearchGate and LinkedIn, as well as the ability to share papers on social media.\*

William Joughin of SRK Consulting said, *"As a long-time supporter of and collaborator with the ACG, we were delighted to contribute to the successful launch of its Online Repository of Conference Proceedings at the Eighth International Conference on Deep and High Stress Mining. Knowledge sharing to support our project work and advance the endeavours of our clients is key to how SRK operates globally, and as such, we are proud to have been the inaugural sponsor of this important learning initiative"*.

Currently on the Online Repository, there are papers from 37 previous ACG conferences, seminars and symposia.

Setting a new benchmark for technology transfer and accessibility, this valuable online resource will continue to develop and grow with future ACG mining and geomechanical events.

View the Online Repository at <https://papers.acg.uwa.edu.au>

The Deep Mining 2017 peer-reviewed conference proceedings, while downloadable at the online repository, are also available in printed version in two volumes, from the ACG online shop. [www.acg.uwa.edu.au/shop](http://www.acg.uwa.edu.au/shop).

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