



International Seminar on Design Methods in Underground Mining Report

The Australian Centre for Geomechanics was delighted to welcome almost 100 delegates to Perth for the inaugural International Seminar on Design Methods in Underground Mining, held from 17–19 November 2015. The seminar focussed on both the numerical and empirical methods used for the design of underground metalliferous mines.

The seminar featured 36 high quality presentations on a range of topics. Over the course of the three-day technical programme, sessions were held on numerical modelling, designing for seismicity, optimisation of design, pillar design, design in narrow vein mining, input data for design, ground support, planning, design, production and financial input and geotechnical design, dilution control and orepass design.

This new seminar was initiated by seminar chair Professor Yves Potvin, Australian Centre for Geomechanics, inspired by his attendance at a specialised conference on Applied Empirical Design Methods held in Peru in 2014; organised by the International Society for Rock Mechanics. The interest generated from the conference's unique discussions on the intricacies of applying empirical design methods to a range of projects convinced Professor Potvin that this topic should be further explored.

Professor Potvin noted in his seminar opening address that he was pleased to see a strong international attendance, despite the downturn in industry. Delegates from countries around the world – including Australia, Canada, Finland, India, Indonesia, PR China, Saudi Arabia, South Africa, Sri Lanka, Sweden, UK and the USA – congregated at the international seminar.

The ACG appreciated the support of the seminar industry sponsor MMG Limited, as well as the trade exhibitors: Adam Technology, C.R. Kennedy & Company, DYWIDAG-Systems International Pty Limited, Geobrigg Australia Pty Ltd, GeoSight Pty Ltd, Haefeli-Lysnar Geospatial Solutions and Jenmar Australia. Their involvement in the seminar greatly contributed to its success.

Dr Will Bawden, Mine Design Engineering, Canada, was the first keynote speaker of the seminar and gave a fascinating presentation on the 'impact of technological change on mining geomechanics design and operations', where he discussed the history of mining geomechanics, both past and present limitations and challenges, and what the industry should aim to achieve in the future, including the role of technology in mining geomechanics.

Also on the first day of the seminar, Dr John Player, MineGeoTech, Australia, spoke on behalf of Paul Harris, MMG Limited, Australia, on his paper 'Dugald River case study – the importance of understanding your orebody and designing your mine for maximum value', where he presented on one of Australia's most interesting and challenging underground mining projects.

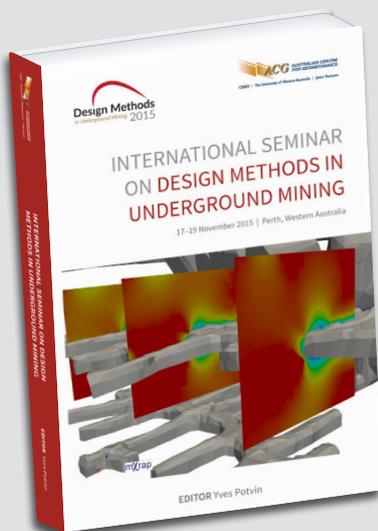
Professor Emeritus Rimas Pakalnis, Pakalnis & Associates and the University of British Columbia, Canada, is renowned for his involvement in the development of several empirical design techniques, his presentation was titled 'Empirical design methods in practice'. He summarised the applications and implementations of empirical design methods established over the past 30 years.

Day three's keynote speaker Emeritus Professor Dick Stacey discussed 'Rock engineering design – the importance of process, prediction of behaviour, choice of design criteria, review, and consideration of risk', outlining his views on the design process.

Prior to the seminar, a two-day course on Practical Application of Empirical Design Methods in Underground Mine Design was held. This course was facilitated by Yves Potvin and Rimas Pakalnis who conveyed their experience of over 300 underground mine operations that they have consulted and researched at.

Following the seminar was a course on Practical Application of Numerical Methods in Underground Mine Design. Facilitators Will Bawden and Dr Kathy Kalenchuk, Mine Design Engineering, Canada, discussed the role of numerical modelling in greenfield studies and projects involving mine operations, model collaboration and case studies.

The ACG team thanks the presenters, sponsors, exhibitors, delegates and all who contributed to the success of the International Seminar on Design Methods in Underground Mining. The seminar proceedings include 43 technical peer-reviewed papers and address a wide spectrum of themes that are central to the application of design methods in underground mines. It is intended that these proceedings will be a reference on this significant topic. These proceedings are available for purchase from the Australian Centre for Geomechanics.



The ACG team was delighted to produce peer-reviewed, hardbound seminar proceedings, which feature 43 technical papers.

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