



SANIRE

SOUTH AFRICAN NATIONAL INSTITUTE OF ROCK ENGINEERING

SYMPOSIUM 2026

BALANCING JUDGEMENT,
TECHNOLOGY, AND SUSTAINABILITY
IN ROCK ENGINEERING PRACTICES

7-8 JULY 2026
EMPERORS PALACE CONVENTION CENTRE,
KEMPTON PARK

ECSA AND SACNASP VALIDATED CPD ACTIVITY CREDITS = 0.1 PER HOUR ATTENDED

SANIRE SYMPOSIUM 2026

SYMPOSIUM Day 1- Tuesday 7 July 2026

07:30–08:30	Registration and Early Morning Refreshments
08:30–08:35	Safety Briefing Venue Official
08:35–08:45	Welcome and Opening Address O. Rakumakoe, Harmony Gold
08:45–09:00	SAIMM Presidential Address G. Lane, Vuuma
09:00–09:30	Keynote Address F. Masemula, Harmony Gold
Session 1 – Geotechnical and Rock Engineering Session Chair - K. Bosman	
09:30–09:50	The Role of InSAR in Monitoring Structural Deformation and Subsidence within Restricted Caving Environments I. Gkikas, E. Moldes
09:50–10:10	A Geotechnical Assessment of Proposed Mining in Shallow-Depth Weathered Rock near the Hex River K. Namise, B.P. Watson
10:10–10:30	An Integrated Multi-Sensor Monitoring Approach for Assessing Preconditioning in Deep-Level Narrow-Reef Mining H. Greeff, L. Scheepers, M. Wiggins, J. Hanekom
10:30–10:50	Mid-Morning Refreshments
Session 2 – Cave Mining and Mine Design Session Chair - B. Tati	
10:50–11:20	Keynote Address: A Journey to ZERO – The Anglo American Story R. Carstens, Anglo American
11:20–11:40	Decision Support for Rock Tunnel Construction: Prioritizing Excavation Methods Through AHP-TOPSIS Multicriteria Analysis N. Olanrewaju Ogunsola
11:40–12:00	Design and Implementation in Friable Pyroxenite: A Case Study on Risk Anticipation T.D. Mametja, K.A. Moganedi
12:00–12:20	Empirical and Numerical Evaluation of Pillar Reclamation Viability in a Shallow Platinum Mine M. Esterhuizen, Z. Schutte, B. Vaughan, T. Rangasamy
12:20–13:20	Lunch
Session 3 – Ground Support and Rock Mechanics Session Chair - R. McGill	
13:20–13:40	Enhancing Grout Packs Performance under High Stress Conditions Using Yielding Packs Support Design at Dishaba Mine F.E. Vukeya, S.C. Mashile, R.J. Gerber
13:40–14:00	Explainable Machine Learning for Rock Tensile Strength Prediction Under High Strain-Rate Conditions Using SHAP and Closed-Form Equations N. Olanrewaju Ogunsola, H. Grobler
14:00–14:20	From Pixels to Pits: The Evolution of Satellite Radar Interferometry and Its Future in Mine Stability Management A. Mkandla
14:20–14:40	Geotechnical Analysis of Reduced Middling in Multi-Reef Mining Conditions at Siyanda Bakgatla Platinum Mine K. Makhubele, G. Nkosi, K.B. Le Bron
14:40–15:00	Afternoon Refreshments
Session 4 – Technology and Innovation Session Chair - L. Scheepers	
15:00–15:20	How Machine Learning Should Be Applied Responsibly and Effectively in Rock Engineering R. Masethe
15:20–15:40	Improving Underground Safety: A Rapid Method to Generate a Barraging Assistance Tool Utilising Machine Learning K. Mphahlele
15:40–18:00	Rockbowl
18:00	End of Day 1
18:30–21:00	Conference Dinner – Braza Restaurant, Emperors Palace

SYMPOSIUM Day 2 - Wednesday 8 July 2026

07:30–08:20	Registration and Early Morning Refreshments
08:20–08:25	Safety Briefing Venue Official
08:25–08:30	Welcome and Opening Address O. Rakumakoe, Harmony Gold
08:30–09:00	Keynote Address: Alternative Data Collection and Data Considerations for Rock Mass Models R. Armstrong, SRK Consulting
Session 5 – Digital Rock Engineering Session Chair - D. Matthews	
09:00–09:20	Integrated Dynamic Reporting in Operational Mines S. Burke, M. Langley, L. Farrington, J. Latilla
09:20–09:40	Interpretation of Numerical Modelling Results for Optimising Massive Mine Design D. van Rooyen
09:40–10:00	A Data-Driven Approach to Geotechnical Characterisation and Support Optimisation at Styldrift Platinum Mine Nkosi M., K.B. Lebron, M.C. van Eeden
10:00–10:20	Merensky Reef Crush Pillar Stability Assessment, with a Focus on Pillar Bursting U. Maqina, K.B. Le Bron, H. Jordaan, M.R. Vermeulen
10:20–10:50	Mid-Morning Refreshments
Session 6 – Stability and Mine Design Session Chair - W. Joughin	
10:50–11:10	Mototolo Der Brochen Adopting Various Mining Strategies to Successfully Develop New Declines Through a Preferential Weathered Zone N. Ndlela
11:10–11:30	Numerical Modelling to Evaluate the Strength of Different Pillar Shapes J.A. Maritz, D.F. Malan
11:30–11:50	Rock Engineering Assistant: Digital Platform J. Hanekom
12:00–13:00	Lunch
Session 7 – Innovation and Monitoring Session Chair - J. Maritz	
13:00–13:20	The Feasibility of Machine Learning for Optimising Non-Yielding Pillars in Hard-Rock Bord-and-Pillar Designs in Underground Mines O. Vetman, H.D. Masethe, M.A. Masethe, R. T. Masethe and A. C. Adoko
13:20–13:40	The Geomechanical Risks of Depositing Reprocessed Tailings into Open Pits Intersecting Legacy Underground Workings S. Smith, B.S. Vaughan, T. Rangasamy
13:40–14:00	The Significance of Mobile Machine Damage on the Effectiveness of Full-Column Grouted Resin Bolts A. Esterhuizen, B. Watson
14:00–14:20	Afternoon Refreshments
Session 8 – Pillar Optimisation and Support Systems Session Chair - G. Le Bron, F. Muger	
14:20–14:40	Application of time-lapse passive seismic tomography in cave mining D Angus, S Prahastudhi, E Bailey, R William, W de Beer, D Collins, A Senso (Online Presentation)
14:40–15:00	Valterra Platinum, Dishaba Mine Haulage Pillar Optimisation N. Jiyane, S. Mashile, K.B. Le Bron, N Meyer, M.C. van Eeden
15:00–15:20	Why In-Situ Testing Matters for Cementitious Membrane Support in Underground Mining G.H. Louw
15:20	Conference Close