

SAIMM Limpopo Branch Technical Event

Theme: Managing Technology for Inclusive and Sustainable Growth in the Mining Industry

Date: 31 July 2026
Venue: Zebula Golf Estate & Spa, Farm 534 KQ,
Bela-Bela, Limpopo



SAIMM LIMPOPO BRANCH TECHNICAL PRESENTATION

Managing Technology for Inclusive and Sustainable Growth in the Mining Industry

- 07:00–07:45 Registration and Early Morning Refreshments
- 07:45–07:50 Safety Brief
- 07:50–08:15 Opening and Welcome
S. Zulu SAIMM Limpopo Branch Chairperson
- 08:15–08:30 SAIMM Presidential Address
T. Mmola
- Introduction of the Keynote Speaker
T. Kgarabjang– Deputy Chair
- 09:00–09:30 Keynote Speaker: Innovation in Hydrometallurgy: Recovering Valuable Metals from Spent Lithium-Ion Batteries
K.C. Sole, Sole Consulting, South Africa
- Session 1: Sustainability, Research and Responsible Growth**
Session Chair: J. Modipe – SIMA / SCI
- 09:30–09:45 Microbes at Work: Turning Acid Mine Drainage into Clean Water
S. Mbedla and P.M. Pale, University of Johannesburg, South Africa
- 09:45–11:00 The Importance of Sustainable Herd Management for Mining Communities After Mine Closure
C. Hudson, J. Browne and D. Viljoen, MineCare Evolution, South Africa
- 11:00–11:15 Mining Sector Research and Development Projects Resulting in Sustainable and Inclusive Growth
K. Magagane, G. Baloi, E. Mualusi and R. B. Khumalo, Palabora Mining Company, South Africa
- 11:15–11:30 Unlocking a Competitive Pyrometallurgy Industry in South Africa: Challenges, Opportunities and the Role of Mintek as a National Research and Technology Organisation
E. Matinde, Mintek, South Africa
- 11:30–11:45 Alternative Energy Sources for Smelting: A Hybrid Biomass-Derived Syngas Route for Decarbonising Ferrochrome Production
M. J. Mvita, N.P. Baloyi and W. Nheta
- 11:45–12:05 **Mid-Morning Refreshments**
- Introduction of the Keynote Speaker
E. Mualusi, Palabora Mining Company, South Africa
- 12:05–12:35 Keynote: The Growing Elephant in the Room: Why Water Quality Must Be Central to Reagent Optimisation and Grade-Recovery Performance
M.S. Manono, University of Cape Town, South Africa

- Session 2: Processing, Metallurgy and Operational Excellence**
Session Chair: T. Motsitsi – Siyanda Bakgatla Platinum
- 12:35–12:50 Responsible Artificial Intelligence Adoption in Flotation at Palabora Mining Company
K. Machaba, T. Ramakobya, M. Moumakwe and K. Mashilo, Palabora Mining Company, South Africa
- 12:50–13:05 Design of Experiments-Based Optimization of Baseline Rougher Flotation Conditions for Palabora Copper Lift II Ore
F.M. Facela, L.E. Mualusi and K. Machaba, Palabora Mining Company, South Africa
- 13:05–13:20 Recovery of Rare Earth Elements from Coal Fly Ash by Sodium Carbonate Roasting, Wet Magnetic Separation and Acid Leaching
M. J. Mvita, N.P. Baloyi, W. Nheta,
- 13:20–13:35 Evaluation of the Metallurgical Performance of a Pilot-Scale Jameson Flotation Cell on the Final Flotation Concentrate Streams at the Modikwa Concentrator
C. Maleka, H. Mphahlele and P. Makuwa, Modikwa Platinum Mine, South Africa
- 13:35–13:50 Sustainable Processing with the Blackwidow at the Heart of the Plant: An ESG Approach
R.B. Mmola, R.D. Ceko, D.T. Theron, R. Benninghoff, University of Johannesburg, South Africa
- 13: 35 –13:50 Investigation of equipment and structural failures as an opportunity for growth
PGH. Pistorius, University of Johannesburg, South Africa
- 13:50–14:05 Sponsor Presentation
- 14:05–14:25 **Lunch**
- Session 3: Technology, Digital Transformation and Mine Infrastructure**
Session Chair: Ntumi Baloyi- Magatteaux
- 14:25–14:40 Managing Technology for Inclusive and Sustainable Growth in the Mining Industry: A Mine Surveying Perspective at Palabora Mining Company, South Africa
D.R. Khumela, G. Mtileni, D. Ntuli, R.B. Khumalo, T. Chauke and F.K. Mulenga, Palabora Mining Company, South Africa
- 14:40–14:55 Managing Critical Ventilation Infrastructure for Operational Resilience: Lessons from Fan Relocation and Flood Recovery in an Underground Block Cave Mine
N. Mkhondo and M. Ramaano, Palabora Mining Company, South Africa
- 14:55–15:10 The Shift of the South African Deep-Level Mining Methods to Autonomous AI-Driven Machinery
W. Khorommbi
- 15:10–15:25 Tokenised Fractional Ownership as a Capital Access Mechanism for Junior and Small-Scale Mining Operations in South Africa
Z. Masibigiri, Kovhani (Pty) Ltd, South Africa
- RPM Presentation Tlatsi to assist with info
- 15:25–15:40 **Afternoon Refreshments**
- Closing Session**
- 15:40–15:50 Sponsor Presentation
- 15:50–16:05 Tokens of Appreciation
- Announcements – S. Moolla
- 16:05–16:15 **Closing Remarks**
- 16:15 **Networking Cocktail Function**
- Technical Evaluation Committee**
- 1.Tshepo Mabe – Chair
- 2.Lebo Tau
- 3.Liberty Chipase
- 4.Neo Tsajoa